

Corporate Social Responsibility Report

CSR Report 2014

Web Version Full Report



Contents

Management's Commitment	1
Special Feature: The Challenge of Creating New Value	3
Corporate Governance	13
CSR Management	16
CSR Objectives and Achievements	18
Realization of Corporate Philosophy	
Provision of Products That Contribute to Better Social Environment	25
How to Engage in Business Activities	
Disclosure of Corporate Information	37
Thorough Enforcement of Compliance; Risk Management	41
Respect of Humanity and Assurance of Comfortable Working Environment	53
Implementation of Fair, Free and Transparent Transactions	72
As a Member of Society	
Preservation of Global Environment	76
Coordination with Local Communities and Promotion of Contribution to the Society	96
Communications with Stakeholders	105
GRI Guidelines ISO26000 Comparison Table	119
Third-Party Opinion	142
CSR Report 2014 Editorial Policy	143

We Will Continue to Create Products with Value to Society as a Global Manufacturing Company



Taku Oshima
President

In June 2014, I assumed the post of NGK President.

While listening sincerely to the voices of all our stakeholders, I will embody the NGK corporate philosophy and live up to the expectations and trust of all our stakeholders to contribute to the development of a sustainable society.

In fiscal 2013, NGK Group net sales increased due to steady demand for automotive-related products in the Ceramic Products Business, increased demand for ceramics used for semiconductor manufacturing equipment in the Electronics Business and the resumption of shipments of NAS battery systems for electric energy storage in the Power Business. In terms of income, profits also increased as a result of higher sales and the effects of the weakened yen. Although we expect an ongoing increase in demand for automotive-related products and ceramics for semiconductor manufacturing equipment, we also anticipate intensified competition. Furthermore, the competitiveness of some of our other insulators, electronic components and industrial processing products has declined and needs to be strengthened.

Given this business environment, to continue achieving sustainable growth as a manufacturing company amid rapidly changing and increasingly intensified global competition, we will promote ongoing enhancements including strengthening competitiveness over the medium term (new/reformed manufacturing structures) and create new products and businesses (2017 Challenge 30) as important management strategies.

Making Strong Businesses Even Stronger

The creation of a leaner business structure and speedier management decision-making are indispensable for competing successfully in the global marketplace.

We will make strong businesses even stronger by creating an efficient global manufacturing structure and higher performance products, establishing innovative manufacturing methods to bolster competitiveness and enhancing the profitability of existing businesses.

At the same time, in business areas where we continue to struggle, we will reorganize manufacturing bases in Japan and overseas and restructure businesses to thoroughly streamline them and reduce costs in an attempt to quickly transform them into profit-generating structures.

Creating New Products and Business

Having announced 2017 Challenge 30, a company-wide objective calling for new products to comprise 30% of net sales in fiscal 2017, the research and development and business divisions are working together to create new products and businesses.

We are moving steadily forward with the launch of bonded wafers for SAW filter applications and a wavelength conversion element for green laser light sources commercialized in April 2014 and aiming for the early market release of GaN wafers used for ultra-high brightness LEDs, HICERAM® (translucent alumina ceramic) wafers and other wafers for electronic devices.

Additionally, we are also engaged in the commercialization of promising developed products including subnano-ceramic membranes, solid oxide fuel cells (SOFC) and chip-type ceramic secondary batteries.

As we move forward with research and development, we are creating technologies and products totally new to the company. We aim to create new businesses that will be future pillars of growth through product development utilizing the NGK Group's strength in ceramics technologies.

As a Member of the Global Business Community

Nearly 70% of NGK Group net sales originate overseas and opportunities to conduct business overseas are increasing as never before. In overseas business today, there is a strong demand for the prevention of international corruption and compliance with laws and ordinances related to imports, exports and competition laws.

As a member of the global business community, we will heighten management transparency and autonomy, further strengthen corporate governance and compliance structures and promote the creation of an environment in which all NGK Group employees observe rules and guidelines for corporate behavior, possess strong ethics, a fair sense of values and act in accordance with international standards for judgment criteria.

Furthermore, for the NGK Group to realize peak performance as a global enterprise, each employee must be highly motivated to make efforts on a daily basis to enhance their individual skills. To this end, we will focus efforts on cultivating diverse human resources and encouraging employees to think freely and flexibly while taking on new challenges.

The CSR Report 2014 introduces topics related to CSR promotion items that highlight the goals of NGK Group CSR initiatives. After reading this publication, as well as the full report posted on our corporate website, we invite you to offer your direct and honest opinions on NGK's initiatives.

Creating New Products and Businesses in Response to Societal Issues and Needs on a Global Scale

To realize a sustainable society through the provision of products that contribute to the resolution of various societal issues, NGK is taking up the challenge of creating new products and businesses utilizing ceramics and other proprietary technologies.

2017 Challenge 30

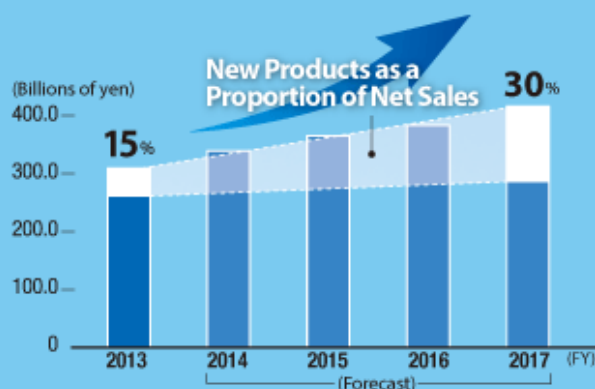
Aiming for a Sales Ratio in Which New Products Comprise 30% of Net Sales

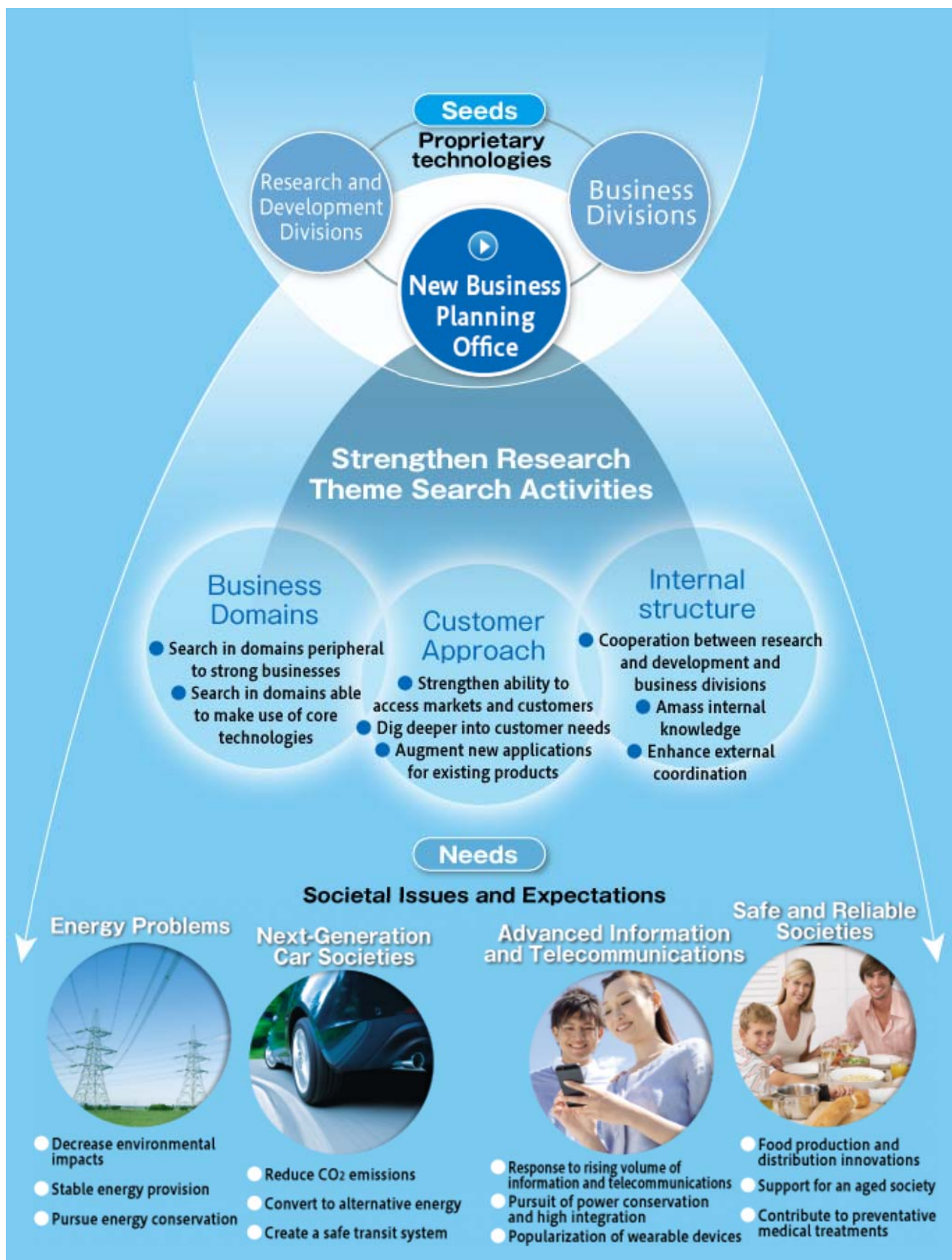
Having announced 2017 Challenge 30, an objective calling for new products to comprise 30% of net sales in fiscal 2017, NGK is engaged in the creation of new products and businesses.

Making use of NGK's strong business domains and wide variety of proprietary technologies, we aim to create new products and businesses that contribute to the resolution of issues facing our customers and society. To achieve this objective, we must further increase the range of our development themes.

To this end, in April 2012 we established the New Business Planning Office with aim of searching for promising development themes. We are promoting the search for development themes in areas enabling use of proprietary technologies and societal issues and needs.

Targets for New Products as a Proportion of Net Sales







Searching for New Product and Business Research Themes Utilizing Strong Business Lines and Proprietary Technologies

Strengthening the Search for Promising Development Themes Linked to the Resolution of Societal Issues

NGK possesses a number of proprietary technologies focused on ceramics that are useful for resolving societal needs in areas including energy, the environment and information telecommunications. I think these technologies can be utilized in an even wider range of areas.

In the two years since the New Business Planning Office was established, we have formulated initiatives and invigorated coordination within and outside the company. The seeds of promising development are finally ready to sprout as we move toward the cultivation phase. Having created measures aimed at discovering needs, we are searching for development themes and strengthening support for the search activities being conducted in each division. We will further enhance coordination within and outside the company to new levels. As an organization responsible for the upstream activity of searching for development themes, we want to contribute to the rapid creation of new products and businesses linked to the resolution of societal issues.

Hideki Shimizu

General Manager,
New Business
Planning Office,
NGK



Going Beyond Divisional and Group Frameworks to Create a Coordinated Structure

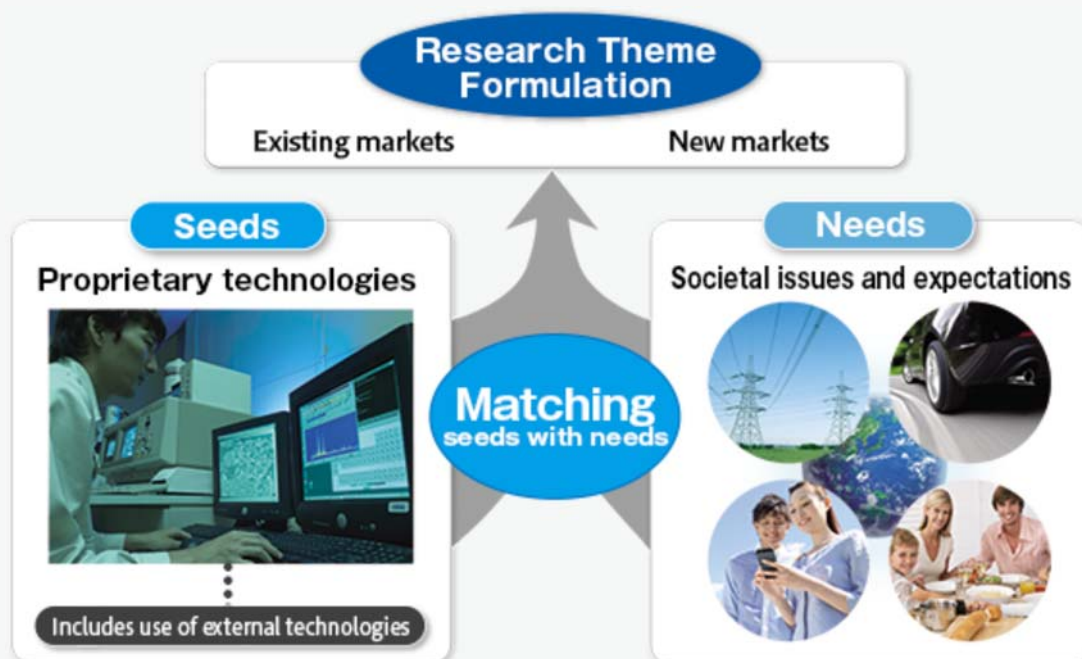
The mission of the New Business Planning Office is to search for research themes utilizing proprietary technologies and areas peripheral to strong businesses including automotive and power. To this end, NGK established a company-wide, horizontally deployed working group that crosses divisional and Group company boundaries to begin searching for research themes in strong business lines including automotive and power.

Additionally, to match seeds with needs, we are conducting company-wide online brainstorming and implementing various measures, including open innovation meetings with experts, to incorporate technologies and ideas from outside the company. NGK is taking up the challenge of creating new products and businesses utilizing ceramics and other proprietary technologies to realize a sustainable society through the provision of products that contribute to the resolution of various societal issues.

Formulating Research Themes Matching Seeds and Needs

The matching of NGK technologies and expertise (seeds) with customer and market needs is connected to the formulation of promising development themes necessary for the creation of new products and businesses.

Four themes based on customer and market needs and issues were established as a result of company-wide online brainstorming, which began in October 2013. Proposals to resolve these issues are currently being deliberated, with approximately 170 employees from the sales, engineering and planning departments in each business division engaged in discussions online. These discussions lead to the formulation of research themes linked to the creation of new products and businesses through coordination among the research and development and business divisions.



Maximizing Use of External Technologies and Ideas

From here on out, it will be difficult to achieve innovation if development is only conducted in-house. Accordingly, NGK holds open innovation meetings where NGK engineers and experts from outside the company share and exchange ideas and search for development ideas through brainstorming sessions focused on core technologies including three-dimensional ceramics forming technologies. Going forward, NGK plans to hold technical study meetings attended by experts, including veteran specialists from other companies and university professors.

Automotive Working Group Initiatives

The automotive working group searches for new products in the automotive area and shares sales routes to all auto manufacturers and automotive parts and equipment makers with the rest of the company.

Although NGK's flagship product HONEYCERAM targets automotive exhaust systems, there are still many opportunities to develop new markets for this product, such as internal combustion systems, power semiconductors, energy storage batteries and other electrical systems.

From now, NGK will strengthen coordination among business divisions and accelerate the company-wide horizontal creation of new products.

Power Working Group Initiatives

The power working group coordinates with the Power Business Division on activities aimed at discovering the potential needs of power companies.

It also exchanges information with experts in the power industry and searches for needs in accordance with upcoming structural changes in the industry and the introduction of new technologies.

Going forward, the power working group plans to hold study meetings with the Power Business Group and Group companies to thoroughly discuss development theme ideas.

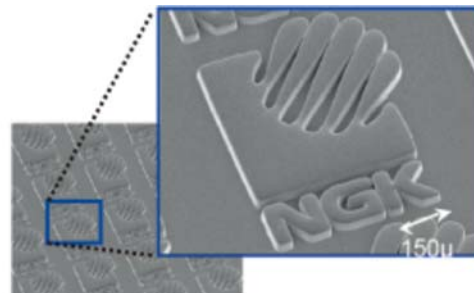
For Example, Three-Dimensional Forming Technologies

Realizing Complex and Detailed Shaping

NGK provides numerous three-dimensional shaped ceramics through gel-cast forming technologies realizing high dimensional precision and complex shaping, as well as imprint forming technologies realizing ultra high dimensional precision detailed shaping.



Gel-cast forming prototype

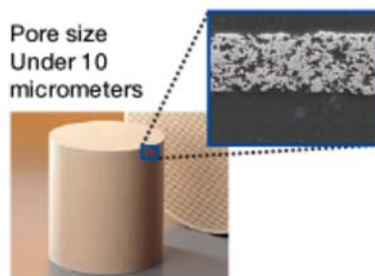


Imprint forming prototype

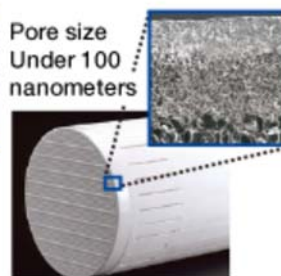
For Example, Porosity Control Technologies

It is possible to Separate a Molecular Level

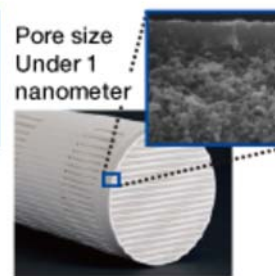
By controlling the pore size of porous ceramics precisely, fine particulate materials and bacteria can be separated, removed or sifted liquids and vapors at the molecular level.



Diesel particulate filter



Microfiltration membrane



Sub-nano-ceramic membrane

Engaging in New Product Development to Meet Societal Needs Through a Variety of Technologies



Contributing to High-Speed, High-Quality Telecommunications Bonded Wafers for SAW Filter Applications

Surface acoustic wave (SAW) filters are a key electronic component in smartphones and other radio communication devices. An important function of the devices is to select specific radio waves which affect communication quality. However, conventional SAW filters have temperature dependence of its properties due to thermal expansion and contraction.

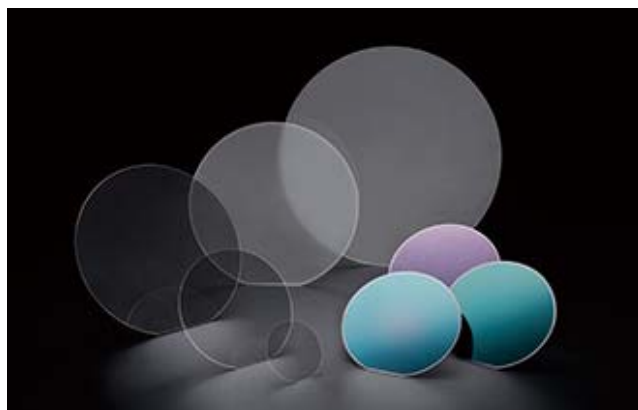
NGK developed the world first bonded wafers for SAW filters that have lower thermal expansion of wafer surfaces by shaping thin piezoelectric single crystal layer on base Si substrate. NGK contributes a development of high-performance SAW filters which realize higher communication speeds and reduced bandwidth congestions.



Bringing Innovation to Electronic Devices Wafers for Electronic Devices

Utilization of NGK proprietary technologies involving the bonding of dissimilar materials, the growing of crystals and the processing of monocrystal substrate laminates results in high-performance wafers that bring innovation to electronic devices.

In addition to new bonded wafers for SAW filter applications, NGK has successfully developed gallium nitride (GaN) wafers with exponentially enhanced luminescent efficiency for light-emitting diode (LED) light sources and large diameter HICERAM wafers (made from translucent alumina ceramics) enabling an alternative to sapphire wafers.

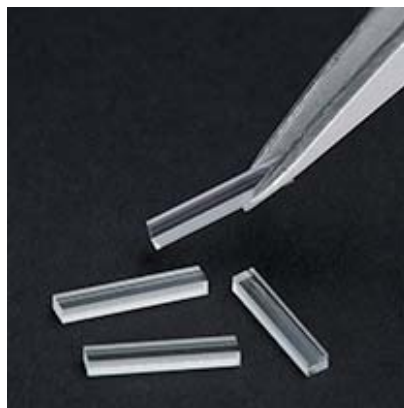




Achieving the Highest Level of Conversion Efficiency in the World Wavelength Conversion Elements for Green Laser Light Sources

Wavelength conversion element utilizing bonded wafer technology is a key device which realizes wavelength conversion from infrared to green light.

NGK's unique structure for these devices achieves the highest level of conversion efficiency in the world, enabling the miniaturization and cost reduction of devices including high-luminosity, high-resolution business projectors.



Combining High-Output Efficiency and Durability Solid Oxide Fuel Cell Module

Fuel cells that generate power through the chemical reaction between hydrogen and oxygen are attracting attention as a source of clean energy.

NGK develops ceramic solid oxide fuel cell (SOFC) modules, a backbone power generation component providing the highest power generation efficiency among fuel cells. SOFC are expected to become the next-generation power generation system. NGK's proprietary design using all ceramics provides a combination of high-output efficiency and durability.



Realizing Smaller and Lighter Electronic Devices Chip Type Ceramic Secondary Batteries

Safer and more reliable than conventional lithium-ion batteries, all-solid state batteries are highly anticipated to be the next-generation of batteries. Using proprietary crystalline technologies, NGK develops chip type ceramic secondary batteries using positive electrodes with significantly heightened lithium-ion conductivity.

Ultra-thin (0.2 mm) with high energy density, these batteries are operable under high temperatures (120 degrees Celsius.) Enabling adjacent mounting with semiconductor components on the circuit board, these batteries realize the miniaturized and lightweight specifications of wearable technology and other next-generation devices forecast to spread in the near future.

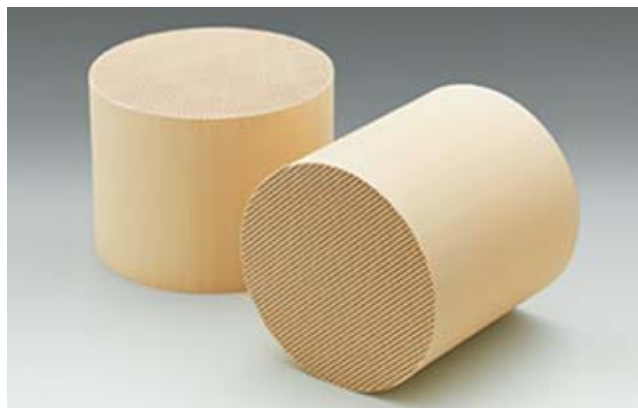




Purifying the Exhaust of Direct-Injection Gasoline Engine Vehicles Gasoline Particulate Filter (GPF)

NGK developed the GPF ceramic filter to remove PM from the exhaust of direct-injection gasoline engine vehicles, with mass production set to launch in 2016 at NGK Ceramics Polska.

Under the emission regulation Euro 6 to be enforced from September 2014, a restriction on the PM concentration from gasoline engine vehicles will be added to the restriction on diesel engine vehicles. As a result, direct-injection gasoline engine vehicles are expected to require particulate material filters since they emit more PM than ordinary gasoline engine vehicles, causing demand for GPFs to increase in Europe.



Conserving Energy in the Drying Process Wavelength Control Drying System

The drying process is indispensable for the manufacture of films and sheets for thin displays, electrode plates for lithium-ion batteries and capacitors and separators. The wavelength control drying system developed by NGK achieves drying through bombardment by infrared light with wavelengths that have effective evaporative properties, enabling significantly reduced energy consumption and shortening drying time to less than half that required in traditional drying methods utilizing hot air.

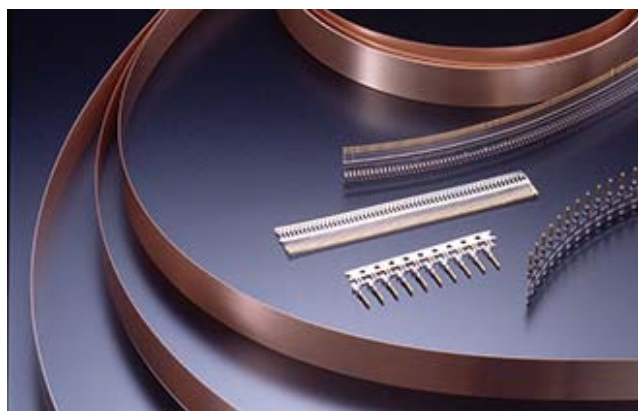
Low temperatures are maintained inside the furnace, making this system applicable for flammable solvents and resin films sensitive to heat.



Enhancing Safety During Quick Charges Heat-Suppressing Beryllium Copper

NGK developed a beryllium copper alloy combining high strength and conductivity remarkable for its heat suppression properties that is as strong as titanium copper alloy with nearly five times more conductivity.

When used for smartphone and battery terminals of charging device, this alloy enhances safety during quick charges by suppressing the generation of heat. It also possesses the high strength and long fatigue life required for electric and hybrid vehicle connectors that carry large currents, facilitating safe quick charging.



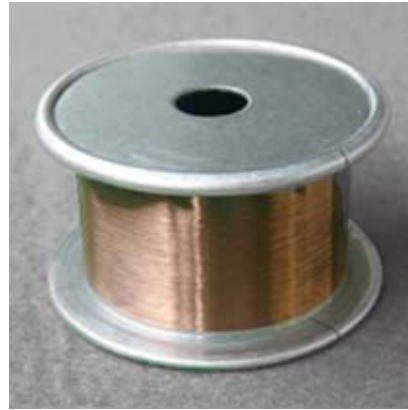


Realizing Smaller and Lighter Industrial Equipment

Zirconium Copper Wire

Zirconium copper wire is an extremely thin (0.02-0.2 mm diameter) wire possessing high strength and conductivity created through a wire drawing process using an alloy combining zirconium and copper.

Demand for conductive wire of thin diameter used in components has increased due to the smaller and lighter size and the higher efficiency of industrial equipment. Using zirconium copper wire for coil and windings for motor and as the conductive wire in coaxial cable enables smaller sizes, lighter weights and higher efficiency.



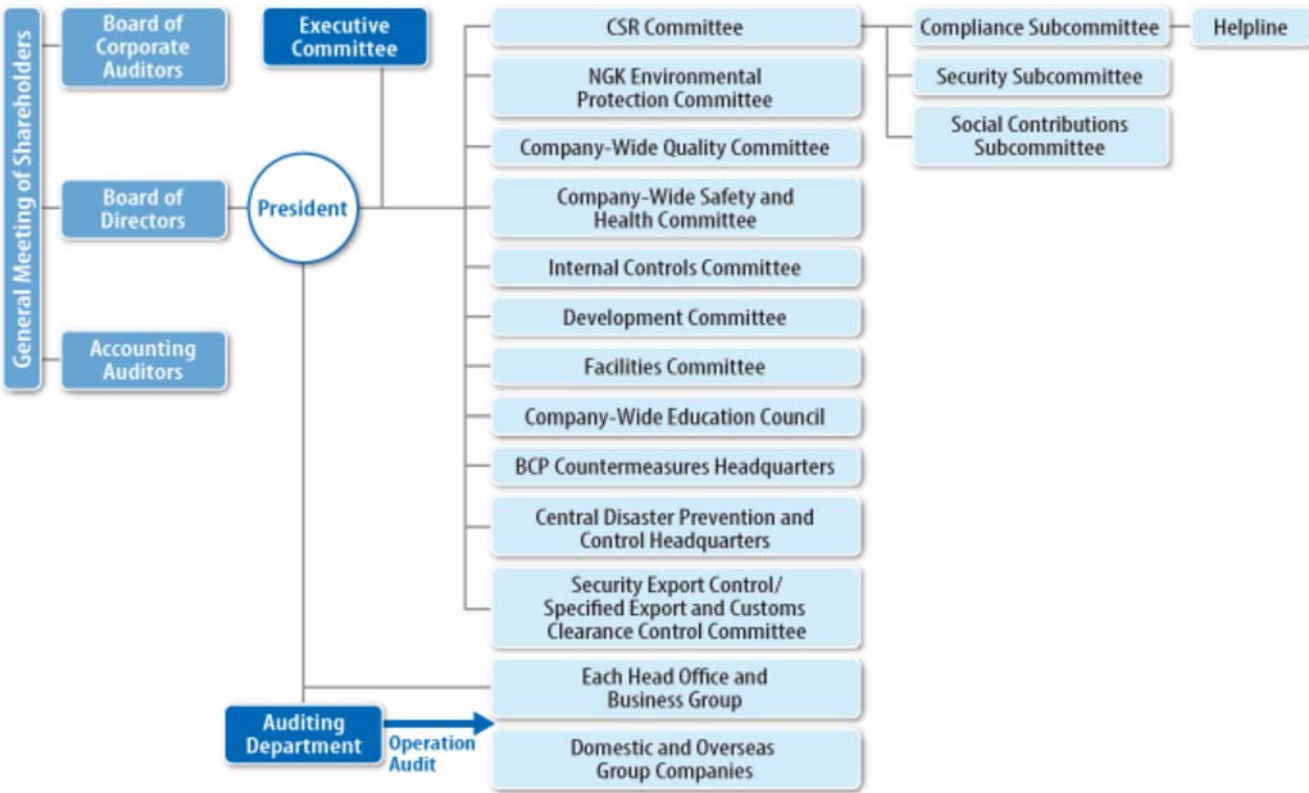
Basic Approach to Corporate Governance and Status Initiatives

To ensure appropriate operations and transparent management, NGK has set its sights on establishing and maintaining an organization capable of swiftly responding to changes in the business environment, and a fair and open management system emphasizing the interests of shareholders. These components make up NGK's basic approach to corporate governance.

To put this approach into practice, NGK has chosen a governance structure anchored by a Board of Corporate Auditors. In addition to the General Meeting of Shareholders, the Board of Directors and the Board of Corporate Auditors, NGK corporate governance includes the Executive Committee and several other committees established to assist the president in management decision-making. These bodies help to enhance governance efficacy by deliberating and reviewing important matters.

Considering the importance of swift and optimal decision making and execution for responding promptly to changes in the operating environment, NGK introduced a corporate officer system, thus separating the management decision-making and supervision functions from business execution functions, and clearly defining the responsibilities of both.

Corporate Governance Structure



Organization Name	Explanation
Board of Directors	The Board of Directors, comprising 12 members as of June 27, 2014, deliberates matters prescribed in the Companies Act, as well as other important management issues, providing oversight for the execution of duties by directors. The Board of Directors includes the appointment of two highly independent external directors, who are expected to play a proper role in strengthening corporate governance through suggestions and advice to the Board on all management issues.
Board of Corporate Auditors	The Board of Corporate Auditors consists of four members, each of whom attend Board of Directors meetings and conduct other activities to audit the execution of duties by directors. To further strengthen corporate governance, the Board of Corporate Auditors includes the appointment of two highly independent external corporate auditors, each possessing significant business experience. One of our standing corporate auditors spent many years engaged in NGK financial operations, and one external corporate auditor has many years of operational experience in financial institutions; both possess a considerable degree of financial and accounting knowledge.
Executive Committee	The Executive Committee, which consists of the President, Board of Directors, Board of Corporate Auditors and senior vice presidents and division heads designated by the President, is a body that deliberates matters necessary for helping the president with decision-making.
CSR Committee	<p>This body assists the president and CSR committee with decision-making by deliberating matters necessary for the observance of laws, regulations and corporate ethics.</p> <p>Observance of laws, regulations and corporate ethics</p> <ol style="list-style-type: none"> 1. Revision or abolition of basic policies related to the observance of laws, regulations and corporate ethics, including the Guidelines for Corporate Behavior. 2. Determination of systems, structures and strict observance of important activities pertaining to laws, regulations and corporate ethics company-wide. 3. Determination, revision or abolition of risk management structures pertaining to laws, regulations and corporate ethics. <p>Responses to items determined to pose a significant threat to the company, as well as consideration and evaluation of the projects promoted by each subcommittee and other CSR-related items identified as important by the CSR Committee pertaining to matters, incidents or accidents related to laws, regulations or corporate ethics, are also deliberated.</p>
NGK Environmental Protection Committee	This body formulates and deliberates the planning of matters necessary to help the President and the NGK Environmental Protection Committee chairman with decision-making regarding the realization of our Core Policy on the Environment to promote business activities in harmony with the environment.
Company-Wide Quality Committee	<p>Aiming to increase customer satisfaction and trust by realizing even higher-quality products and services, this body deliberates the matters necessary to help the President and the Company-wide Quality Committee chairman with decision-making regarding the following items.</p> <ol style="list-style-type: none"> 1. Revision or abolition of Company-wide Quality Policy and Objectives 2. Items pertaining to the prevention of serious quality defects in the market and technological responses after occurrence 3. Other quality-related matters determined to be important
Company-Wide Safety and Health Committee	This body attempts to promote, through lower committees, the deliberation and determination of Company-wide basic policies regarding safety and health and the establishment of basic policies and priority targets.
Internal Controls Committee	<p>This body deliberates matters necessary to help the President and Internal Controls Committee chairman with decision-making regarding internal controls system evaluation and reporting related to financial reporting based on the Financial Instruments and Exchange Law.</p> <ol style="list-style-type: none"> 1. Determines reporting scope of same reports this fiscal year, evaluation and reporting schedules, evaluation standards relating to internal controls and other basic matters. 2. Determines internal controls evaluation summary and internal controls report drafts.

Development Committee	Mechanism for deliberating items necessary to assist the decision making of the President and Development Committee chairman regarding evaluations, budgets, major individual planning and commercialization projects related to development.
Facilities Committee	Mechanism for deliberating items necessary to assist the decision making of the President and Facilities Committee chairman regarding policies, evaluations, budgets and performance and major individual planning related to capital expenditure and information systems.
Company-wide Education Council	Mechanism for deliberating items necessary to assist the President's decision making regarding policies, systems, structures and major individual planning related to company-wide human resource development.
BCP Countermeasures Headquarters	Aimed at ensuring business continuity in times of emergency, a mechanism for executing the operation and maintenance of business continuity planning (BCP) in normal times as well as guidance and support for restoration systems and determining a restoration order of priority when BCP is in effect.
Central Disaster Prevention and Control Headquarters	Mechanism for executing requisite duties based on commands from the Division Head and deliberating items necessary to assist the decision making of the President and Division Head regarding items related to earthquakes, storm and flood damage, fires and explosions that threaten or significantly impact the company.
Security Export Control/Specified Export and Customs Clearance Control Committee	Mechanism for the deliberation and determination of guidance for subsidiaries and affiliates, the creation of legal compliance and other internal systems with respect to security export controls, specified export declaration systems and the management of customs clearance operations.

Internal Control Systems

The Board of Directors and the executive bodies overseen by the president are responsible for establishing and operating NGK's internal control system. The Auditing Department, a specialized internal audit body, is responsible for monitoring the status of business execution at each operating division. Moreover, NGK has established the Internal Controls Committee to manage its reporting system for internal controls pursuant to Japan's Financial Instruments and Exchange Law. The NGK Group Guidelines for Corporate Behavior were formulated as a policy embodying the Group's corporate and management philosophies and as a guide for the actions we take.

These guidelines specify the Group's fundamental stance with respect to business activities and corporate behavior to ensure it remains a company that is beneficial to society, even in the pursuit of its economic goals. The CSR Committee, meanwhile, is responsible for a range of activities that include formulating NGK Group Guidelines for Corporate Behavior, ensuring compliance with laws, regulations and corporate ethics is fully entrenched throughout the Group, and developing responses to incidents and accidents it believes could significantly impact the Company. The committee's actions are designed to maintain and improve the level of the Group's internal control system.

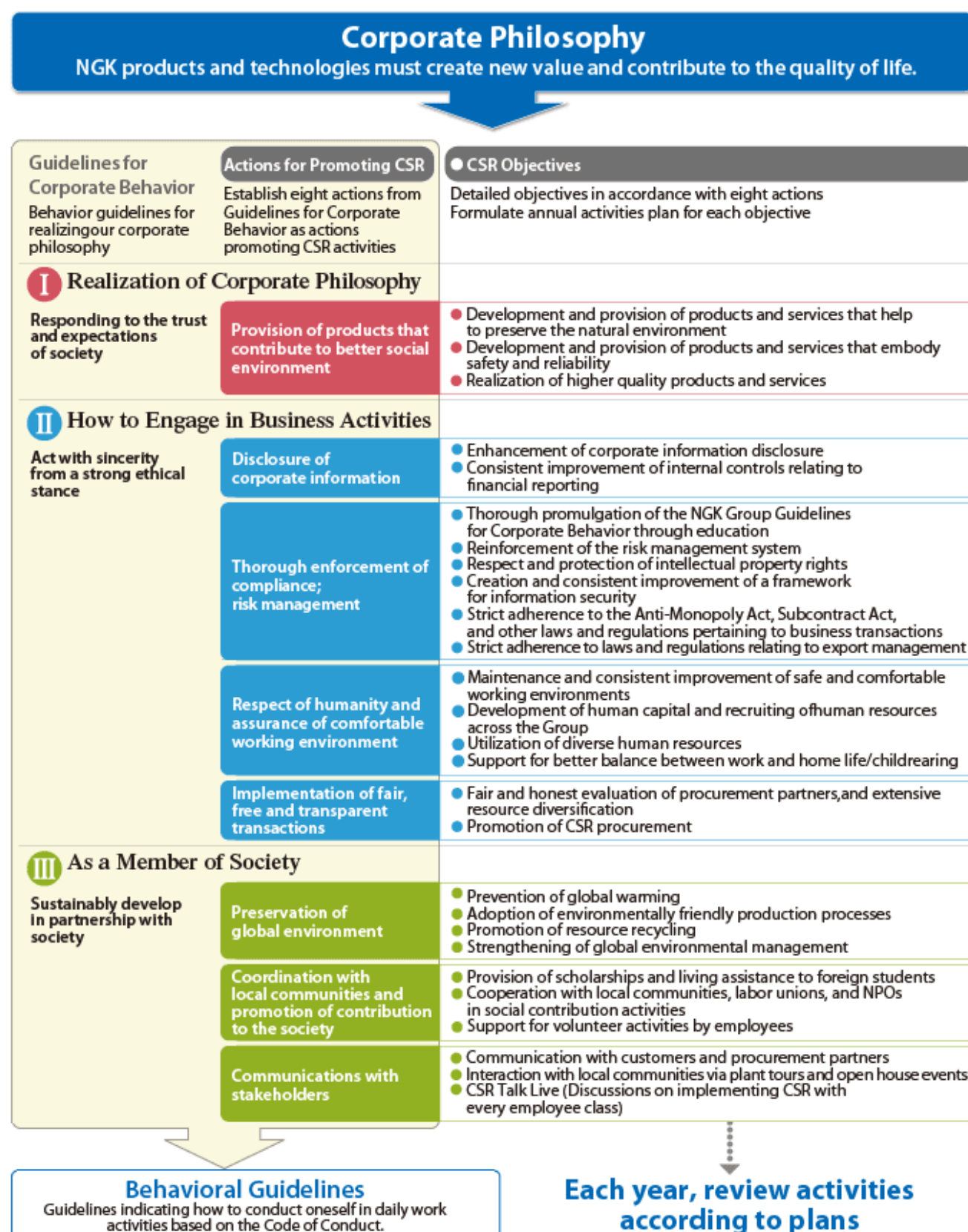
Promoting CSR Activities Through the Establishment of Various Committees

Aiming to contribute to the development of a sustainable society, the NGK Group has established the CSR Committee, the NGK Environmental Protection Committee, the Company-wide Quality Committee, the Company-wide Safety and Health Committee, and the Internal Controls Committee to promote Group CSR activities.

CSR Activities Basic Concepts and Systems

Through the embodiment of our corporate philosophy, the NGK Group will continue to provide products and services that contribute to the creation of a better social environment and bring new value to society.

By putting these activities into practice, we are working together with our customers, employees and business partners to fulfill our social responsibility as a company in every respect, an act essential to meeting the public's expectations and earning its trust.



External Certification Acquisition Status (As of March, 2014)

NGK Group quality management systems have acquired ISO 9001/TS 16949 certification on 32 lines. Environmental management systems have acquired ISO 14001 and other third-party certification at 35 manufacturing bases worldwide.

Going forward, we will continue to acquire certification as new plants come on line.

Quality Management System (ISO 9001/TS 16949)		
Category		Number
Power Business Group	Electrical Insulator Division	1
	NAS Battery Division	1
	Domestic Group	2
	Overseas Group	5
Ceramics Business Group	AC Plant	1
	Ishikawa Plant	1
	Sensor Division	1
	Industrial Process Division	1
	Domestic Group	4
	Overseas Group	9
Electronics Business Group	Electronic Components Division	1
	HPC Division	1
	New Metals Division	1
	Overseas Group	3

Environmental Management System (ISO 14001, etc.)			
Category		No. of manufacturing bases	No. of bases certified
NGK		4	4
Domestic Group	Power Business	2	2
	Ceramic Products Business	6	6
	Electronics Business	10	10
Overseas Group	Power Business	5	5
	Ceramic Products Business	9	9
	Electronics Business	4	4

Safety and Health Management System (OSHMS)			
Site		Year certified	Renewed
NGK	Nagoya	2008	2011
	Komaki	2009	2012
	Chita	2009	2013

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

Provision of Products that Contribute to Better Social Environment

Development and Provision of Products and Services That Help to Preserve the Natural Environment

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Strengthen global production system in response to increased demand for automotive-related parts. (NGK Group)	Strengthened global production system in response to expanding demand for automotive-related products.	○	<ul style="list-style-type: none"> Strengthen production system in response to market trends for automotive-related products.

Development and Provision of Products and Services That Embody Safety and Reliability

Make effort to restore confidence in NAS battery, continuously receive orders (NGK)	Received order for large number of NAS batteries from a European transmission system operator	○	<ul style="list-style-type: none"> Promote market development and cost reductions
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Realization of Higher Quality Products and Services

Thoroughly eliminate quality risk by reinforcing design reliability and aim for further improvement of production quality. (NGK Group)	<ul style="list-style-type: none"> Created guidelines to strengthen design review (DR) Conducted company-wide DR on company-wide review activities and important themes 	○	<ul style="list-style-type: none"> Enhance design quality in light of deterioration, improve manufacturing methods to control variation
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Disclosure of Corporate Information

Enhancement of Corporate Information Disclosure

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Continue to provide fair and honest information disclosure in a timely and appropriate manner. (NGK Group)	Conducted ongoing fair and honest information disclosure in a timely and appropriate manner.	○	<ul style="list-style-type: none"> Enhance and continue to provide fair and honest information disclosure in a timely and appropriate manner

Consistent Improvement of Internal Controls Relating to Financial Reporting

Reduce the number of issues identified by audits. (NGK Group)	Completed all improvements during fiscal year despite additional findings	△	<ul style="list-style-type: none"> Curtail and clearly improve items identified by audits
Raise efficiency in assessment and audit of processes that were rated favorably in the previous fiscal year. (NGK Group)	Raised efficiency in assessment and audit of processes that were rated favorably.	○	<ul style="list-style-type: none"> Raise efficiency in assessment and audit of processes that were rated favorably in the previous fiscal year.

Thorough Enforcement of Compliance; Risk Management

Thorough Promulgation of the NGK Group Guidelines for Corporate Behavior Through Education

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Continue thorough awareness and inculcation of NGK Group Guidelines for Corporate Behavior and behavioral guidelines (NGK Group)	Familiarized employees with career training, created a paper on awareness summarizing guidelines for corporate behavior distributed to all employees	○	<ul style="list-style-type: none"> Continue thorough awareness and inculcation of NGK Group Guidelines for Corporate Behavior and behavioral guidelines

Reinforcement of the Risk Management System

<ul style="list-style-type: none"> Continue to have the CSR Committee periodically confirm and follow up on the status of Company-wide risk countermeasures. (NGK Group) Conduct fourth CSA questionnaire targeting all of NGK. (NGK) 	<ul style="list-style-type: none"> CSR Committee met three times, followed up on status of risk countermeasures. Distributed the fourth Control Self Assessment (CSA) questionnaire to 1,467 people including NGK executive directors and standing corporate auditors 	○ ○	<ul style="list-style-type: none"> The CSR Committee will regularly follow-up on the status of Company-wide risk countermeasures. Distribute CSA questionnaire to all domestic Group companies
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Respect and Protection of Intellectual Property Rights

Enhance awareness-raising programs for managers. (NGK)	Launched intellectual property strategy after China intellectual property risk workshop held last fiscal year	○	<ul style="list-style-type: none"> Conduct awareness program for managers on innovator intellectual property management
Continue to conduct small group discussion-based seminars for young engineers. (NGK)	Patent Map Usage explanatory meetings were held two times and small group discussion-based seminars were held eight times for young engineers.	○	<ul style="list-style-type: none"> Continue to conduct small group discussion-based seminars for young engineers.

Creation and Consistent Improvement of a Framework for Information Security

Enhance each division through training and other support (NGK)	Complete at all Group companies.	○	<ul style="list-style-type: none"> Continue to follow up on security measures and strengthen software management
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Strict Adherence to the Anti-Monopoly Act, Subcontract Act, and Other Laws and Regulations Pertaining to Business Transactions

Regularize competition law seminars led by lawyers at Group companies in the United States and Europe (NGK Group)	Conducted competition law seminars at Group companies in Korea, the United States and Europe	○	<ul style="list-style-type: none"> Continue regularization of seminars, etc.
Make employees fully aware of and observe the Competition Law Compliance Handbook. (NGK Group)	Conveyed latest information on competition laws to inculcate thorough awareness	○	<ul style="list-style-type: none"> Promote thorough awareness and use of competition laws handbook

Strict Adherence to Laws and Regulations Relating to Export Management

Raise divisions to a higher level by supporting their educational and other activities. (NGK)	Launched integrated management of customs clearance status of company-wide import cargo and inculcated thorough awareness of import/export handbook	○	<ul style="list-style-type: none"> Ongoing study meetings and training related to import/export management
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Respect of Humanity and Assurance of Comfortable Working Environment

Maintenance and Consistent Improvement of Safe and Comfortable Working Environments

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Follow up at Company-wide level to ensure all risks are identified and countermeasures formulated. (NGK)	Strengthened three-year risk assessment scenario, conducted activities surpassing second year objectives	○	<ul style="list-style-type: none"> Focus efforts on safety training to prevent accidents before they occur
Extend Company-wide activities to get approval as a 5S workplace. (NGK)	489 teams at three plants conducted activities, all teams acquired certification	○	<ul style="list-style-type: none"> Promote 5S workplace certification activities, continue to develop company-wide
Continue health management for employees who routinely work long hours. (NGK)	Number of employees receiving health checks and interviews declined significantly 67% compared to the previous fiscal year	○	<ul style="list-style-type: none"> Continue health management for employees who routinely work long hours.

Development of Human Capital and Recruiting of Human Resources across the Group

Optimize training by considering the needs of divisions and participants. (NGK)	Conducted systematic human resources training corresponding to position and occupation	○	<ul style="list-style-type: none"> Plan highly effective human resource training
Systematic training aimed at strengthening on-site capabilities. (NGK Group)	13 new trainees joined training for the development of in-house instructors, bringing the total number to 25 people	○	<ul style="list-style-type: none"> Promote systematic training in attempt to strengthen onsite capabilities
Ongoing language training (Goal: 80% of new hires score 600 or higher on the TOEIC). (NGK)	85% of new hires achieved a TOEIC score of 600 points or higher	○	<ul style="list-style-type: none"> Ongoing language training (Goal: 80% of new hires score 600 or higher on the TOEIC).

Utilization of Diverse Human Resources

Achieve legally stipulated employment rate of 2.0% after requirement increase (NGK)	Achieved the 2.07% legally mandated ratio.	○	<ul style="list-style-type: none"> Maintain legally stipulated employment rate of 2.0% or higher
Continue to promote use of system for transferring to general employment jobs. (NGK)	As of fiscal 2013, a total of 69 employees had transferred jobs	○	<ul style="list-style-type: none"> Continue to promote use of system for transferring to general employment jobs.

Support for Better Balance between Work and Home Life/Childrearing

Thorough observance of rules regarding working hours. (NGK Group)	Exchanged opinions and launched study meetings involving labor and management	○	<ul style="list-style-type: none"> Work with labor union to promote rectification of long working hours
Increase use of expanded childrearing support measures. (NGK Group)	Expanded use of system for working shorter hours while raising children	○	<ul style="list-style-type: none"> Increase use of expanded childrearing support measures.

Implementation of Fair, Free and Transparent Transactions

Fair and Honest Evaluation of Procurement Partners, and Extensive Resource Diversification

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Conduct assessment on 10% of total number of suppliers (NGK)	Conducted visits and assessment on 10% (98 firms) of all suppliers	○	<ul style="list-style-type: none"> Conduct assessment on 10% of total number of suppliers
Ensure multiple suppliers for important materials. (NGK Group)	Conducted questionnaire on BCP targeting top 50 suppliers	○	<ul style="list-style-type: none"> Promote consideration of collected questionnaire results

Promotion of CSR Procurement

We will integrate Green Procurement Guidelines into CSR Procurement Guidelines and advance from the diffusion (understanding) to factual investigation stage to the compliance (agreement) to expansion stage. (NGK Group)	Combined green procurement and CSR procurement guidelines advanced from "penetration (understanding)—factual investigation" phase to "compliance (agreement)—expansion" phase Added principles regarding "controversial minerals, bribery, human rights and labor" to CSR Procurement Guidelines	○	<ul style="list-style-type: none"> Carry on with "compliance (agreement—expansion" phase, expand CSR procurement by seeking agreement from new suppliers
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Preservation of Global Environment

Prevention of Global Warming

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Curb CO₂ emissions. Domestic: Emissions volume of less than 181,000 metric tons Basic unit per net sales 8% reduction from previous fiscal year * 1 Overseas: Basic unit per net sales 5% reduction from previous fiscal year * 1	Curb CO ₂ emissions. Domestic: Emissions volume of less than 181,000 metric tons Basic unit per net sales 9% reduction from previous fiscal year Overseas: Basic unit per net sales 22% reduction from previous fiscal year	○	<ul style="list-style-type: none"> Curb CO₂ emissions. Domestic: Emissions volume of less than 183,000 metric tons Basic unit per net sales 13% reduction from previous fiscal year Overseas: Basic unit per net sales 4% reduction from previous fiscal year

* 1 Revised method tallying sales and corrected objectives fro last fiscal year accordingly.

Adoption of Environmentally Friendly Production Processes

Promote the development of innovative process technologies for overseas locations. (NGK Group)	Introduced highly efficient equipment into domestic manufacturing bases and developed management improvements at overseas bases	○	<ul style="list-style-type: none"> Promote the development of innovative process technologies for overseas locations.
Develop NGK energy-efficiency measures for general-purpose equipment at Group companies. (NGK)	Conducted energy conservation diagnostics on general purpose equipment at Group companies in Japan and overseas	○	<ul style="list-style-type: none"> Promote energy conservation diagnostics on general purpose equipment at Group companies in Japan and overseas

Promotion of Resource Recycling

Curb amount of discarded materials generated. Domestic: Basic unit per net sales 15% reduction compared to the previous fiscal year * 1 Overseas: Basic unit per net sales 5% reduction compared to the previous fiscal year * 1	Curb amount of discarded materials generated. Domestic: Basic unit per net sales 6% reduction compared to the previous fiscal year Overseas: Basic unit per net sales 22% reduction compared to the previous fiscal year	△	<ul style="list-style-type: none"> Curb amount of discarded materials generated. Domestic: Basic unit per net sales 23% reduction compared to the previous fiscal year Overseas: Basic unit per net sales 9% reduction compared to the previous fiscal year
Improved recycling rate Conduct detailed analysis of Group companies in Indonesia, Poland and Mexico.	Improved recycling rate Identified issues at overseas Group companies with low recycling rates	○	<ul style="list-style-type: none"> Increase recycling rates within the scope appropriate for actual conditions at all overseas manufacturing bases

* 1 Revised method tallying sales and corrected objectives from last fiscal year accordingly.

Strengthening of Global Environmental Management

Began creation of a mechanism for sharing information in China, where laws and regulations change frequently. (NGK Group)	Created a mechanism for ascertaining the status of responses to laws and regulations at overseas Group companies	○	<ul style="list-style-type: none"> Identify potential environmental risks at overseas Group companies
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Coordination with Local Communities and Promotion of Contribution to the Society

Provision of Scholarships and Living Assistance to Foreign Students

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Maintain support to foreign students. (NGK)	Provided housing for 39 students from five countries and scholarships for 20 students from nine countries.	○	<ul style="list-style-type: none"> ▪ Maintain support to foreign students.
Continue to hold language classes and cross-cultural exchange meetings led by foreign students conducted within and outside the company. (NGK)	Held 40 language classes and 13 cross-cultural exchange meetings.	○	<ul style="list-style-type: none"> ▪ Continue to hold language classes and cross-cultural exchange meetings led by foreign students conducted within and outside the company.
Continue to investigate responses of other organizations. Consider incorporating findings in future measures. (NGK)	Distributed NGK International Friendship Club and New Year's greeting cards after support concluded	○	<ul style="list-style-type: none"> ▪ Distribute information after support ends.

Cooperation with Local Communities, Labor Unions, and NPOs in Social Contribution Activities

Continue making efforts to understand Group company activities with initiatives for information transmission and sharing to link activities of each company. (NGK Group)	Shared the status of activities at each company.	○	<ul style="list-style-type: none"> ▪ Ascertain activity status and maintain distribution of information connected to the upcoming activities at each Group company
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Support for Volunteer Activities by Employees

Create environment enabling employees to easily participate in volunteer activities. (NGK)	<ul style="list-style-type: none"> ▪ Donated approximately 44,000 school meals to Africa through Table for Two (TFT). ▪ Conducted forest cultivation volunteer activities 	○ ○	<ul style="list-style-type: none"> ▪ Continued to create an environment enabling employees to easily take part in volunteer activities
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Communications with Stakeholders

Communication with Customers and Procurement Partners

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Hold earnings results presentations for major suppliers. (NGK)	Held earnings results presentations for approximately 120 major suppliers.	○	<ul style="list-style-type: none"> ▪ Hold earnings results presentations for major suppliers.
Continue to operate the supplier helpline. (NGK)	Continued to operate the supplier helpline.	○	<ul style="list-style-type: none"> ▪ Continue to operate the supplier helpline.
Employ most appropriate suppliers and continue supplier visitation activities to step up supplier quality. (NGK)	Visited 11 new suppliers and 87 existing suppliers for a total of 98 suppliers visited	○	<ul style="list-style-type: none"> ▪ Continue visits and assessments focused on new and major suppliers

Interaction with Local Communities via Plant Tours and Open House Events

Conduct ongoing exchanges with regional communities through plant tours and other activities. (NGK)	Interacted with local communities through eight plant tours at four sites	○	<ul style="list-style-type: none"> Continue to interact with local communities
Conduct dialog with external stakeholders. (NGK)	Exchange opinions focusing on regional administrators	△	<ul style="list-style-type: none"> Conduct ongoing dialog with external stakeholders.

CSR Talk Live (Discussions on Implementing CSR with Every Employee Class)

Hold two-way communication events with NGK and domestic Group company employees. (NGK and domestic Group companies)	Conducted CSR Talk Live eight times, with one Group company participating for the first time	○	<ul style="list-style-type: none"> Continue two-way communication events with NGK and domestic Group company employees
Further enhance CSR-Web content. (NGK and domestic Group companies)	Distributed information related to CSR activities and CSR Committee proceedings on the online CSR Web.	○	<ul style="list-style-type: none"> Enhance CSR-Web content.

< Realization of Corporate Philosophy > Provision of Products That Contribute to Better Social Environment

Guided by a Company-wide Quality Policy that puts customers first, the NGK Group considers the provision of products and services that contribute to a better social environment to be one of its most important missions in an effort to create quality from the customer's perspective.

Development and Provision of Products and Services That Help to Preserve the Natural Environment

The NGK Group Produces and sells HONEYCERAM honeycomb ceramic substrates containing catalysts that render nitrogen oxides (NOx), carbon monoxide (CO), hydrocarbons (HC), and other potentially harmful substances found in gasoline vehicle exhaust harmless, as well as large size HONEYCERAM and diesel particulate filters (DPF) that capture over 90% of the particulate matter (PM) found in diesel exhaust and nitrogen oxides (NOx) sensors.

Topics 2013

- Collecting Over 99% of Particulate Matter (PM) Emitted from Diesel Power Generators



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Strengthen global production system in response to increased demand for automotive-related parts. (NGK Group)	Strengthened global production system in response to expanding demand for automotive-related products. 1 Enhancing the Vehicle Exhaust Emissions Control Product Manufacturing Structure in Response to Market Demands	○	Strengthen production system in response to market trends for automotive-related products.

▼ Initiatives Other Than Above

- a** [Collecting Over 99% of Particulate Matter \(PM\) Emitted from Diesel Power Generators](#)

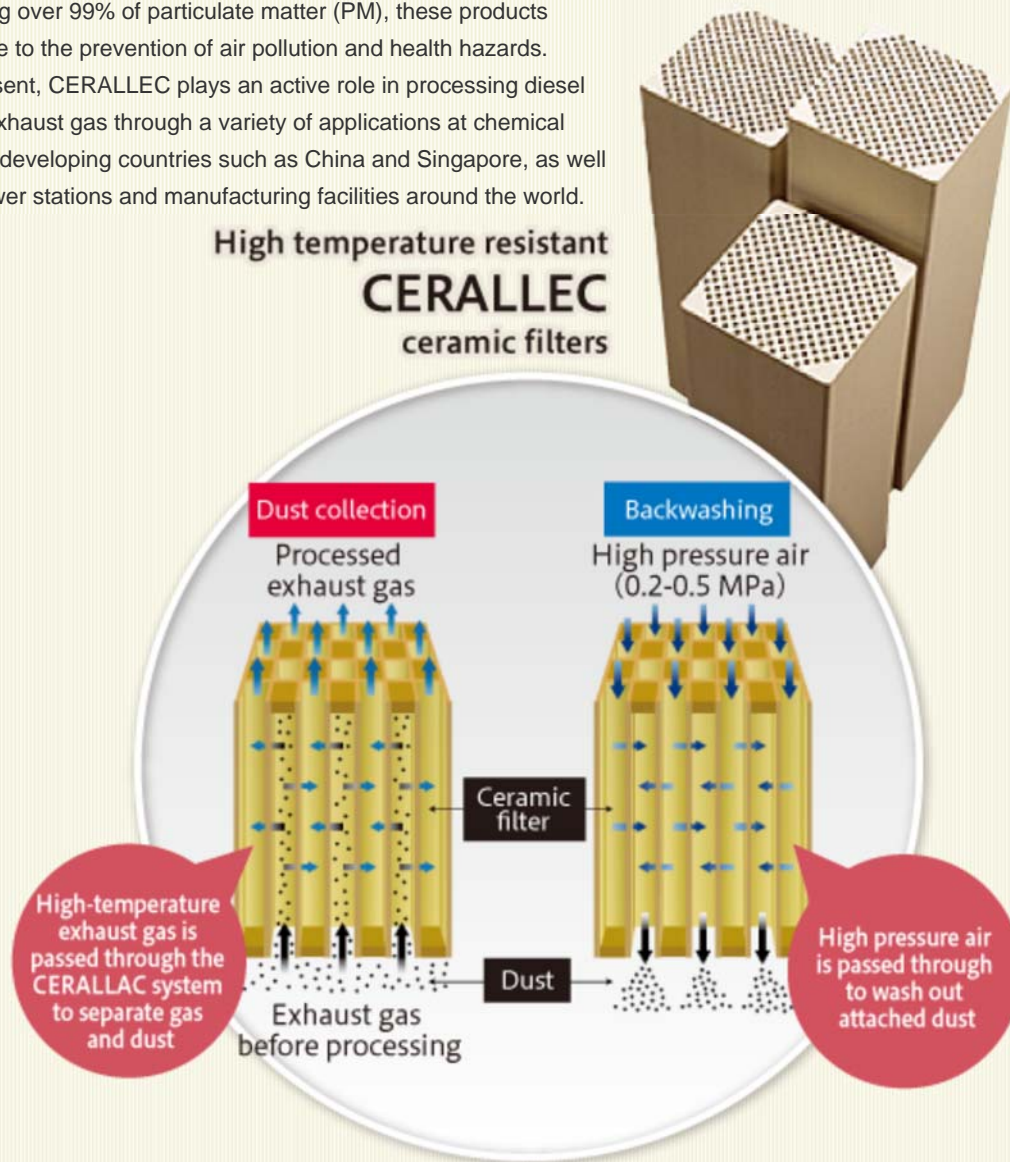
a Collecting Over 99% of Particulate Matter (PM) Emitted from Diesel Power Generators

Contributing to the Resolution of Various Issues with Superior Black Smoke Removal Technology

NGK developed the CERALLEC system for removing black smoke from diesel power generators using ceramic filter manufacturing technologies conforming to strict standards for vehicle exhaust gas. Removing over 99% of particulate matter (PM), these products contribute to the prevention of air pollution and health hazards.

At present, CERALLEC plays an active role in processing diesel engine exhaust gas through a variety of applications at chemical plants in developing countries such as China and Singapore, as well as at power stations and manufacturing facilities around the world.

High temperature resistant CERALLEC ceramic filters



Actively Preventing Air Pollution from Marine Engines

Amid tightening regulations on exhaust gas from diesel engines powering ships and the ongoing introduction of regulations on nitrogen oxides (NOx) and sulfur oxides (SOx), regulations for PM are also being considered.

NGK has begun developing a ceramic system for marine vessel main engines (driving mechanisms), which emit a significant amount of exhaust gas, in addition to those already available for marine auxiliary engines (power generators). The results of a demonstration test conducted on an actual vessel for 1,100 hours beginning in August 2013 are being confirmed as development and verification are being accelerated toward early practical application.



Confirming high PM removal performance during a demonstration test on a marine vessel

Customer Voice



Enhancing the Effects of Environmental Measures During Diesel Engine Development

Engines are operated under extreme conditions during endurance tests and other demonstrations in the engine test lab at our diesel engine development base, resulting in the emission of more gas and black soot than during normal performance. To remove this soot, we introduced CERALLEC. The superior performance of CERALLEC enables us to safely test older engines that do not conform to exhaust gas regulations.

Going forward, we expect NGK to enhance maintenance and other aftercare, supplying new products with improved performance offering support for further environmental measures.



Mr. Atsushi Arimoto

Managing Director

ISUZU DIESEL ENGINE TECHNICAL AND
SERVICE OF SUZHOU LIMITED

1 Enhancing the Vehicle Exhaust Emissions Control Product Manufacturing Structure in Response to Market Demands

NGK focuses efforts on the development and production of exhaust emissions control products such as HONEYCERAM ceramics for automobile exhaust purification, diesel particulate filters and high-precision on-vehicle nitrogen oxide (NOx) sensors for automobile exhaust purification. In recent years, we have been expanding and upgrading our global production structure in response to increasing demand driven by the strengthening of automobile exhaust regulations around the world and increased auto sales, in developing countries.

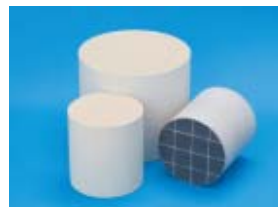
With regard to HONEYCERAM ceramics for automobile exhaust purification, NGK completed to expand production capacity approximately 40% by fiscal 2013 through the construction of a new large size HONEYCERAM diesel automotive exhaust gas purifier plant in Poland in January 2014, and enhanced manufacturing facilities at factories in Japan and overseas.

In terms of NOx sensors, NGK raised production capacity from 2.4 million units per year to 7 million units per year in fiscal 2013.



HONEYCERAM

A ceramic substrate holding catalysts that convert harmless hazardous elements contained in vehicle exhaust.



Diesel Particulate Filters

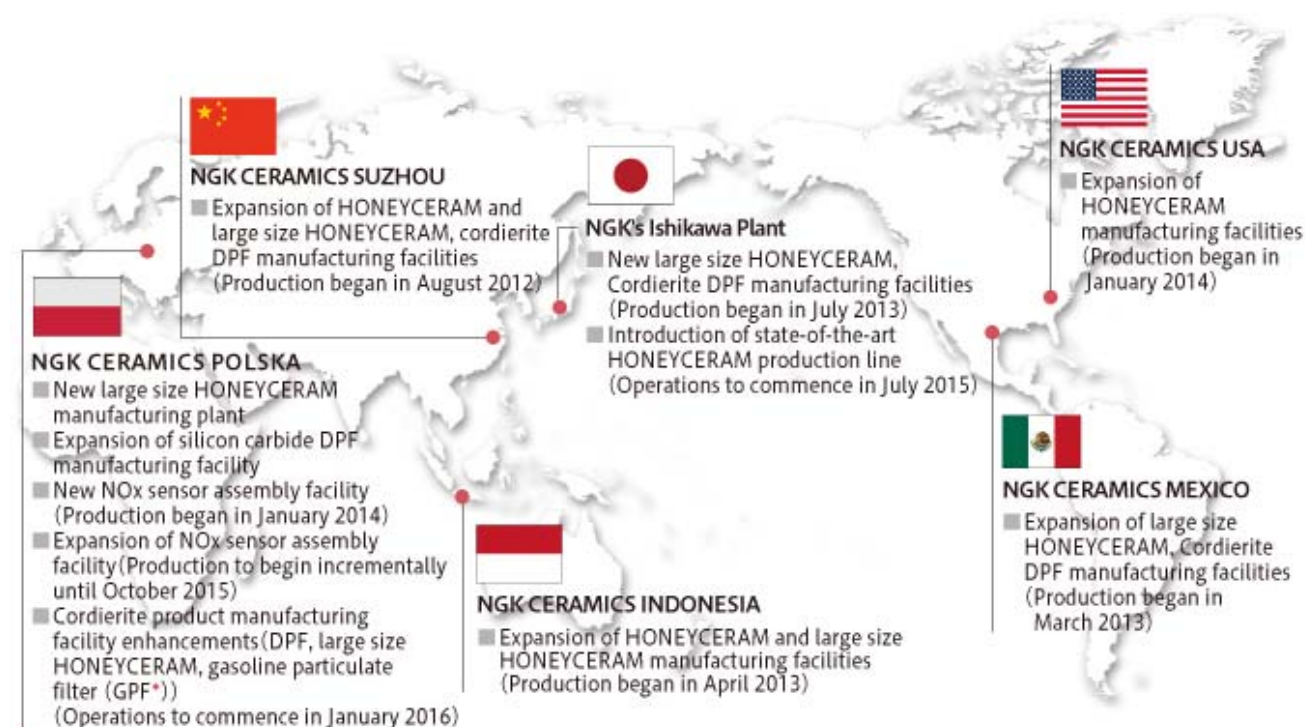
A ceramic filter that removes PM from diesel engine exhaust.



High-Precision on-Vehicle Nitrogen Oxide (NOx) Sensors

Sensors enabling high-precision measurement of vehicle exhaust NOx concentrations at the ppm level in real time.

Status of Global Production Structure Enhancements in Recent Years



*GPF is a new product.

Development and Production of Various Products That Contribute to the Environment

Safely Disposing of Radioactive Waste

■Rotary Kiln Combustible Solid Waste Incinerator

Nuclear power plants produce a large amount of combustible waste. NGK delivers incineration systems for the safe incineration disposal of waste to all nuclear power plants and several research facilities in Japan.

In 2013, a rotary kiln was delivered to a facility that disposes of radioactive waste. The rotary kiln is a rotating furnace in which waste can continuously be deposited and disposed. Its sealed structure prevents radioactive materials from leaking, while negative pressure maintained inside the furnace area safely disposes of radioactive waste.



Delivered rotary kiln

■Induction-Heat Melting/Solidification System

Low-level radioactive waste, such as metals and filters, thermal insulating materials, glass, concrete and other non-combustible solid waste stored at nuclear power plant facilities must be physically and chemically stabilized when buried underground.

To meet these requirements, NGK developed an induction heat melting/solidification system enabling significant reduction of waste materials. Five units have been delivered to nuclear power plants in Japan, and are operating nominally.



Induction-Heat Melting/Solidification System

Shortening the Solvent Drying Process, Reducing Environmental Impact

■Wavelength Control Drying System

The solvent drying process is indispensable in the production of high performance films used in computers and smartphones. The proprietary drying system developed by NGK contributes to the shortening of this process and reduces impact on the environment.

As opposed to the hot air traditionally used in this process, drying is achieved through bombardment by infrared light with wavelengths that have effective evaporative properties. Low temperatures are maintained inside the furnace, increasing traditional drying capabilities several times over and enabling shortened drying times and energy savings.

In fiscal 2013, NGK improved quality and shortened the time required for in-vehicle lithium-ion battery electrode efficiency drying, the drying of thick membrane coats on film and green sheet drying for laminated parts, realizing energy savings (an average improvement of over 30%) compared to conventional hot air drying methods.



Wavelength Control Drying System

< Realization of Corporate Philosophy > Provision of Products That Contribute to Better Social Environment

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Development and Provision of Products and Services That Embody Safety and Reliability

NGK was first in the world to commercialize the mega watt-class NAS battery energy storage system. The large-capacity, high-energy density and long-lasting NAS battery is roughly 1/3 the size of a lead-acid battery, able to provide high output for long periods of time. It will help with load leveling at times of peak demand, stabilize intermittent renewable energy and contribute to power-saving measures and reduced energy costs.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Make effort to restore confidence in NAS battery, continuously receive orders (NGK)	Received order for large number of NAS batteries from a European transmission system operator 1 NAS Battery Systems for Large-Capacity Electric Energy Storage	○	Promote market development and cost reductions

▼ Initiatives Other Than Above

a [Making Sure NGK Products Have No Adverse Effects on User Health and Safety](#)

1 NAS Battery Systems for Large-Capacity Electric Energy Storage

In light of increasing demand for its large-capacity electricity storage batteries to enable the widespread use of sustainable energy resources, NGK is expanding the introduction of NAS batteries in Japan and overseas.

Going forward, NGK will proactively promote activities aimed at expanding sales and increasing orders for NAS batteries on a global scale, while also making efforts to reduce costs and meet the needs of customers around the world.



United Arab Emirates

NGK received order from the Abu Dhabi Water & Electricity Company for a 60,000 kilowatt NAS battery system; delivery of the first lot was completed in March 2014.



United States

In April 2013, California's largest power company PG&E began operation of 4,000 kilowatt NAS battery system installed at a customer site.



Italy

NGK signed a framework agreement with major transmission system operator Terna S.p.A. for the provision of an NAS battery system with a maximum 70,000 kilowatt output. The first order for 35,000 kilowatts has been received.



Japan

A project has materialized involving emergency use/momentary drop in voltage applications. NGK is also moving forward with installation planning for a NAS battery system on an island location.



Canada

In March 2013, the BC Hydro and Power Authority began operation of 1,000 kilowatt NAS battery system installed in Yoho National Park, part of the Canadian Rocky Mountain natural park group.



President Taku Oshima (who was Senior Vice-President at the time of photo) participates in the ribbon-cutting ceremony for the NAS battery system installed in Canada. (Second from the right)



a Making Sure NGK Products Have No Adverse Effects on User Health and Safety

In each of NGK's divisions, design reviews are held when new products are commercialized. Products are commercialized and supplied only after it has been determined that there are no adverse effects on user health and safety.

< Realization of Corporate Philosophy > Provision of Products That Contribute to Better Social Environment

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Realization of Higher Quality Products and Services

In accordance with the corporate quality policy of striving with customers to provide reliable and useful products and services to the public, each year the NGK Group determines targets for the entire company and engages in the creation of quality from the customer's perspective.

To thoroughly eliminate the risk of quality defects for customers, since fiscal 2010 NGK has promoted the restructuring of quality activities with the aim of developing these activities for the entire NGK Group in fiscal 2011.

In fiscal 2013, NGK engaged in activities to prevent quality issues from arising and strengthened quality improvement activities.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Thoroughly eliminate quality risk by reinforcing design reliability and aim for further improvement of production quality. (NGK Group)	<ul style="list-style-type: none"> Created guidelines to strengthen design review (DR) Conducted company-wide DR on company-wide review activities and important themes <p>1 Strengthening the Elimination of Quality Risks Company-wide</p>	○	Enhance design quality in light of deterioration, improve manufacturing methods to control variation

Corporate Quality Policy

NGK is dedicated to quality and committed to providing valuable products and services that are trusted by our customers and respected by society

Fiscal 2014 Company-wide Quality Targets

Eliminate quality risk by placing an emphasis on product design life and robust manufacturing processes.

▼ Initiatives Other Than Above

a [Total Employee Participation in Development of QuiC Activities to Improve Quality](#)

b [Strengthening Product Quality Education, Including Training to Prevent Quality Defect Risks, and Training to Raise the Level of DR](#)

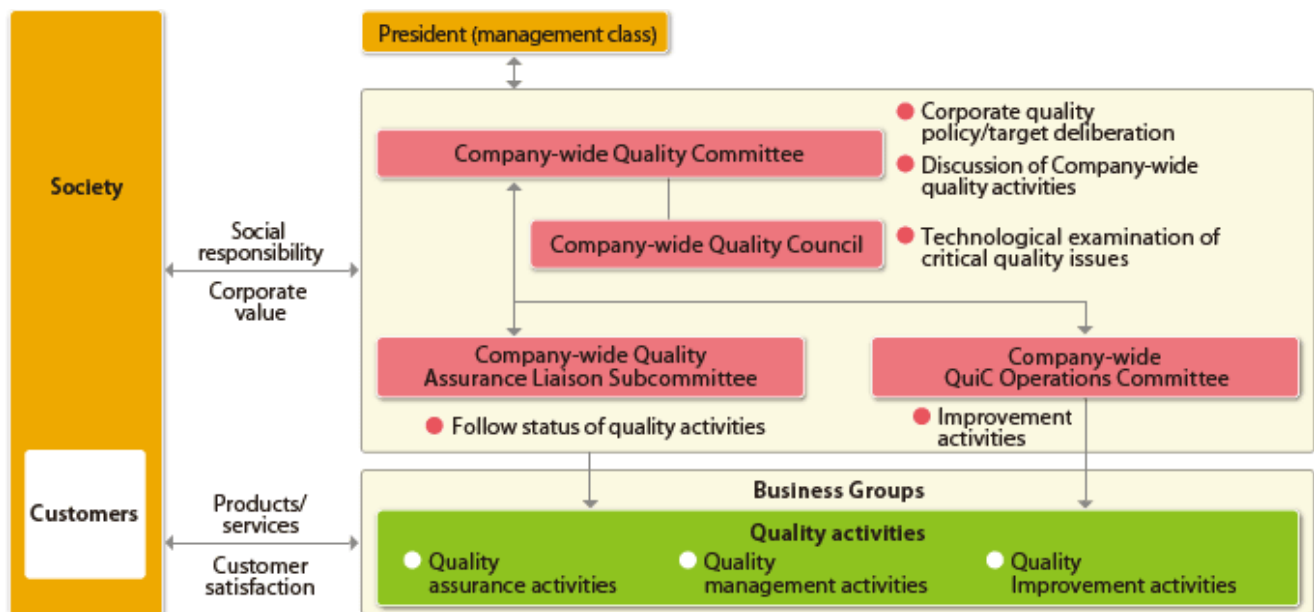
1 Strengthening the Elimination of Quality Risks Company-wide

NGK Group Corporate Rules for Company-Wide Quality Activities

In recent years, amid increasingly sophisticated and diverse customer quality demands, target market and other discrepancies have resulted in a disparity in quality activity levels among divisions in the NGK Group. Having decided and established on restructuring NGK quality activities, in fiscal 2010 NGK formulated Corporate Rules for Company-wide Quality Activities aimed at eliminating quality risks.

DR is positioned as NGK's most important corporate activity, implemented when development milestones or manufacturing processes change. Reviewers throughout entire company participate in important DR to support the elimination of quality risks. Professional engineers and corporate executive management also participate in Company-wide DR (Company-wide Quality Review Meetings) to evaluate product reliability and safety from a variety of perspectives.

Company-Wide Quality Activities System

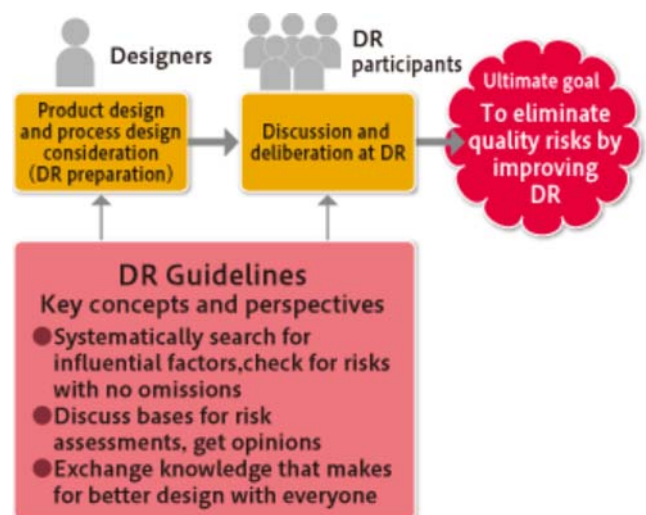


From Establishing Rules, to Improving Their Effectiveness

In fiscal 2013, internal audits were conducted in each division, the efficacy of Corporate Rules for Company-Wide Quality Activities was confirmed and discussions were held to further improve division quality activities. In addition, to enable the thorough elimination of quality risks by further activating DR, DR Guidelines were created and training was conducted to improve DR effectiveness.

NGK also strengthened design reliability from the perspectives of durability and safety of products in the market. Going forward, NGK will thoroughly eliminate quality risks and make further improvements to production quality through initiatives to strengthen quality activities.

The Aim of DR Guidelines



Important Points Pertaining to Design Process Review

Designers and DR participants must pay attention to:

- Clarify intentional and unintentional changes, evaluating the impact of these change
- Clarify customer uses and variations in production; reflect in product and process designs
- Confirm indispensable quality

Important Points Pertaining to DR Management

DR coordinators and responsible manager must pay attention to:

- DR is a place where everyone reviews design together
- Deliberation output items are clarified from the outset
- Clarify the foundation and idea behind design proposals
- Continuously improve DR management
- Conduct related training regularly to improve DR quality



a Total Employee Participation in Development of QuiC Activities to Improve Quality

The NGK Group develops QuiC (Quality up innovation Challenge) quality improvement activities that all employees have participated in since 2003. These activities attempt to enhance product and work quality, in particular, quality improvement activities conducted by small groups, which results in suggestions for improvement, with the best improvements shared as an example across the entire NGK Group.

Participation in NGK improvement suggestion activities was about 100% for the manufacturing divisions and around 83% for the non-manufacturing divisions in fiscal 2013, with approximately 41,000 suggestions submitted in all. Each year in July, NGK holds a Company-wide contest at headquarters to showcase examples of outstanding improvement activities intended for deployment.

In fiscal 2013, the company-wide contest were held on July 12 with presentation from a total of 16 divisions including overseas Group companies. Approximately 400 employees participated.

Going forward, NGK aims to further invigorate these activities through the participation of all employees from manufacturing and non-manufacturing divisions.

Engaged in Quality Improvements with Participation from All Employees from Manufacturing and Non-Manufacturing Divisions including Overseas Group Companies

As a manufacturer, we focus efforts on quality improvement activities in non-manufacturing divisions as well as manufacturing divisions. NGK held a company-wide contest in fiscal 2013 where teams from non-manufacturing division such as Sales, Legal Affairs and Production Control enthusiastically presented the results of their activities.

Production Control Division



The NAS Battery Production Management Division received the highest award in recognition of its efficient inventory management system.

Sales Division



The Sales Division received an award for outstanding performance resulting from the efficiency of its sales office work duties.

Manufacturing Division



The factory improvement team achieved improved productivity.

Overseas Locations



Prize-winning employees from manufacturing locations in Poland and South Africa presented product defect reduction measures and other initiatives.

Training



Training was conducted for sales office employees and work duty improvements were implemented from the customer's perspective.

b Strengthening Product Quality Education, Including Training to Prevent Quality Defect Risks, and Training to Raise the Level of DR

Traditionally, quality education at the NGK Group has focused on manufacturing site improvement methods such as the QC approach and QC tools.

Furthermore, from fiscal 2009, to strengthen practical education preventing quality defects, NGK added practical risk prevention training for young design engineers and their supervisors.

During practical risk prevention training in fiscal 2013, guidance with mentor was conducted and discussion with division heads was provided on the subject of practical themes in design and development. Practical risk prevention training for managers included seminars targeting upper-level managers conducted by outside lecturers.

With regard to the DR for eliminating quality risks, in fiscal 2011 NGK began reviewer practical education to enable reviewers to lead to effective DR.

In fiscal 2013, DR Guidelines formulated the previous fiscal year were used in training that was expanded to include a wide range of participants, from younger employees to auditors.

As a result of these training activities, design engineer and DR participant awareness and response skills regarding the elimination of quality risks are improving.

Going forward, to further enhance the ability to discover quality risks among design engineers and DR participants, NGK will provide enhanced quality training.

▶ Main Quality Training Conducted in Fiscal 2013

Training name	Participating Divisions	Times held	Participants	Objective
Practical risk prevention training	7 divisions	1	30	Practical training targeting division design engineers consisting of seven sessions on systematic risk elimination concepts and usage.
Risk prevention II and reliability management training	14 divisions	1	26	Training targeting upper-level managers focused on reliable management knowledge and behaviors required of managers to promote preventative activity within divisions.
Training to raise the level of DR	29 main product divisions	11	258	Training targeting younger employees through auditors focused on the necessity of DR improvements and the ideal state of DR in an attempt to raise the level of DR.

<How to Engage in Business Activities> Disclosure of Corporate Information

To enhance management transparency, the NGK Group makes an effort to disclose information demanded by wider society in a timely and appropriate manner, including management, financial, product and service information, in order to earn society's trust.

Enhancement of Corporate Information Disclosure

The NGK Group promotes shareholder-oriented management that emphasizes capital efficiency across the entire Group, and strives to improve corporate value with the goal of realizing sustainable growth. Furthermore, along with timely and accurate disclosure of corporate data through a variety of mediums, including via the corporate website, business reports and annual reports, the NGK Group strives for two-way communication that allows it to gain invaluable input from its shareholders and investors.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Continue to provide fair and honest information disclosure in a timely and appropriate manner. (NGK Group)	Conducted ongoing fair and honest information disclosure in a timely and appropriate manner. 1 Continue to Provide Fair and Honest Information Disclosure in a Timely and Appropriate Manner	○	Enhance and continue to provide fair and honest information disclosure in a timely and appropriate manner

▼ Initiatives Other Than Above

- a** [Aiming for More Open Shareholder Meetings](#)
- b** [Investor Presentations and Individual Visits](#)
- c** [Measures for Returning Profits to Shareholders](#)
- d** [Shareholders Information](#)

1 Continue to Provide Fair and Honest Information Disclosure in a Timely and Appropriate Manner

Information related to management and finance is disclosed in a timely and appropriate manner on the NGK corporate website, while management information is disclosed accurately in business reports and annual reports in an effort to provide stakeholders with information in easily understandable formats.

a Aiming for More Open Shareholder Meetings

NGK endeavors to hold open shareholder meetings that its shareholders will feel welcome in attending.

Also, every year we introduce NGK corporate activities at the shareholder meeting with booths inside the venue displaying product exhibits explained by NGK staff.

In fiscal 2013, NGK prepared for the attendance of additional shareholders by increasing the number of additional meeting venues from the traditional location to include two locations.

Additionally, in an effort to provide more detailed disclosure information related to the General Meeting of Shareholders, convocation notices, results of exercising voting rights and notices of resolution are published in the IR section of NGK's corporate website.

b Investor Presentations and Individual Visits

NGK continues to directly disclose information to institutional investors and engage them in two-way communications. Investor briefings by senior management on financial results are held in Japan twice each year for institutional investors and analysts. In addition to receiving individual visits, NGK also supports the collecting of data during visits.

In addition, in fiscal 2013 senior management visited institutional investors in Japan and overseas to conduct one-on-one meetings.

Going forward, by maintaining and expanding these initiatives, we will increase opportunities to connect with our investors.

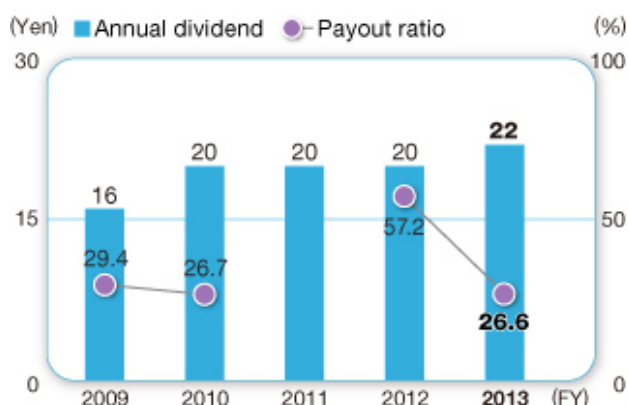
c Measures for Returning Profits to Shareholders

NGK views the return of profits to shareholders as one of its most important management policies.

As a basic policy, we strive for shareholder-oriented management that emphasizes return on equity (ROE), and distribute the benefits of successful management after consideration of a comprehensive range of factors, including business performance and financial position, and future business development.

In fiscal 2013, business was on track with a favorable exchange rate due to the weakening yen and increased demand for ceramics products used in automotive-related products and semiconductor manufacturing equipment. In light of these factors, NGK increased the dividend per share by ¥2, paying an annual dividend of ¥22 per share. The consolidated payout ratio was 26.6%.

Change in Shareholder Dividends



d Shareholders Information

Shares Information (as of March 31, 2014)

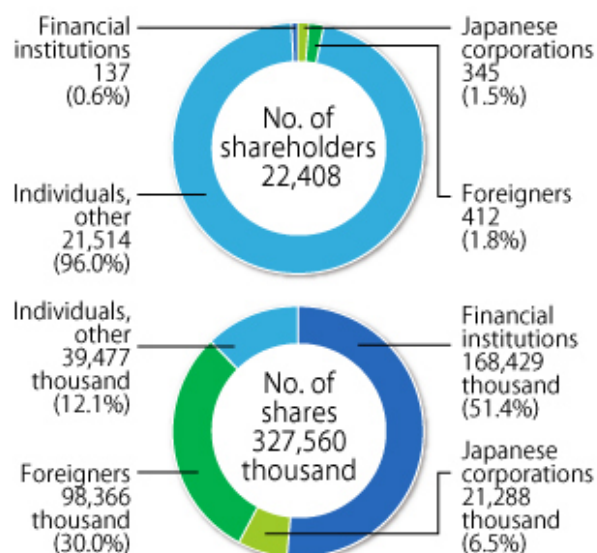
Total number of Shares authorized	735,030,000 thousand
Total number of shares issued	337,560,196 thousand
Number of shareholders	32,285

In recent years, we have upgraded and expanded the IR information available on our website in response to requests by shareholders and investors.

Related information

► [IR information](#)

Share Distribution (as of March 31, 2014)



<How to Engage in Business Activities> Disclosure of Corporate Information

To enhance management transparency, the NGK Group makes an effort to disclose information demanded by wider society in a timely and appropriate manner, including management, financial, product and service information, in order to earn society's trust.

Consistent Improvement of Internal Controls Relating to Financial Reporting

The NGK Group builds an internal control system based on directors' resolutions.

The creation and management of an Internal Controls System is facilitated by the business duty execution mechanism of the Board of Directors and President on down. The execution and status of business duties in each division is monitored by a special internal monitoring department and efforts are made to enhance the level of accuracy in assessments of efficacy, efficiency and reliability of duties performed. The Internal Controls Committee promotes an internal control reporting system based on the Financial Instruments and Exchange Act.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	Evaluation ★	A FY2014 Plan and Targets
Reduce the number of issues identified by audits. (NGK Group)	Completed all improvements during fiscal year despite additional findings 1 Internal Controls Management Structure Optimization Tailored to Business Lineup Changes	△	Curtail and clearly improve items identified by audits
Raise efficiency in assessment and audit of processes that were rated favorably in the previous fiscal year. (NGK Group)	Raised efficiency in assessment and audit of processes that were rated favorably. 2 Raise Efficiency in Assessment and Audit of Processes	○	Raise efficiency in assessment and audit of processes that were rated favorably in the previous fiscal year.

1 Internal Controls Management Structure Optimization Tailored to Business Lineup Changes

Self-evaluation of work duties is conducted in each division and at NGK Headquarters and an attempt is made to maintain and improve the level of internal controls management through internal control monitoring by means of internal audits and the NGK Internal Controls Committee via the Auditing Department.

In fiscal 2013, as in the previous year, internal audits and internal controls monitoring were conducted at NGK and 32 Group companies. Specifically, an attempt was made to raise the level of management at NGK Ceramics Mexico and in business divisions and Group companies involved in the NOx sensor business, where production is expanding. As a result, issues not discovered at the self-evaluation stage, but identified by internal audits and other checks, totaled 39 items across 30 categories. Although this was an increase compared to the previous fiscal year's results (28 items across 27 categories), all improvements were completed within the fiscal year, confirming the effective functioning of internal controls.

2 Raise Efficiency in Assessment and Audit of Processes

Regarding self-evaluation, internal monitoring and other processes that were rated favorably in the previous fiscal year, NGK is engaged in the reduction of operational burdens from evaluations.

In fiscal 2013, we continued our attempt to make evaluations and audits more efficient by condensing control details and conducting rotating audits as necessary.

In fiscal 2014, we reviewed current operating procedures and promoted simplification, sharing and systemization in an attempt to make self-evaluation and internal monitoring more efficient.

<How to Engage in Business Activities> Thorough Enforcement of Compliance; Risk Management

The NGK Group views compliance as the foundation of CSR and makes an effort to instill this view into employees. We make every effort to strengthen information security and minimize risks in business activities.

Thorough Promulgation of the NGK Group Guidelines for Corporate Behavior Through Education

To realize and protect the NGK Group corporate philosophy of creating new value by providing products and technologies that contribute to a better social environment, we established the NGK Group Guidelines for Corporate Behavior and thoroughly promote awareness.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Continue thorough awareness and inculcation of NGK Group Guidelines for Corporate Behavior and behavioral guidelines (NGK Group)	Familiarized employees with career training, created a paper on awareness summarizing guidelines for corporate behavior distributed to all employees 1 Making Efforts Toward Thorough Awareness of Guidelines for Corporate Behavior and Behavioral Guidelines	○	Continue thorough awareness and inculcation of NGK Group Guidelines for Corporate Behavior and behavioral guidelines

▼ Initiatives Other Than Above

a [Conducting Compliance Education in Japan and Overseas](#)

1 Making Efforts Toward Thorough Awareness of Guidelines for Corporate Behavior and Behavioral Guidelines

Employees are engaged in the strict observance of Corporate Behavior Guidelines and Behavioral Guidelines for individual initiatives. In fiscal 2011, we created an awareness handbook that was distributed to all employees, including contract manufacturing employees and temporary employees, at NGK and all domestic Group companies.

In fiscal 2013, we once again ensured distribution of awareness handbooks, and created an awareness note summarizing the Corporate Behavioral Guidelines and distributed it to all employees. We also conducted training for newly hired NGK employees to facilitate understanding of our policies and guidelines and added explanations of principles to promoted employee training. In CSR Talk Live* held in NGK Group companies, the purpose and meaning of policies and guidelines were explained.

At overseas Group companies, we established regulations considering the Corporate Behavioral Guidelines in light of the special characteristics of each company and the country or region where they operate. Going forward, we will further inculcate awareness of these policies and guidelines at career education such as training for the newly promoted.

Note: For details, please see [Communication with Stakeholders](#).

a Conducting Compliance Education in Japan and Overseas

Positioning compliance as the most important initiative for enhancing reliability, the NGK Group makes an effort to educate and spread awareness with the Compliance Subcommittee under the auspices of the CSR Committee.

Legal Compliance Liaison Meetings were held to introduce case studies or explain legal statutes in addition to career or overseas post education. In fiscal 2013, as in the previous year, we focused on training with regard to competition laws in Japan and overseas. Also, as in the previous fiscal year, we conducted training mainly for management staff on regulations pertaining to anti-bribery to civil servants in foreign countries. Going forward, NGK also plans to conduct training related to anti-bribery regulations at overseas Group companies.

► Compliance Education Conducted in Fiscal 2013

Name	Main Targets	Details	No. of times (Participants)
Career education	Newly hired employees	Basic CSR and compliance	1
	Mid-career hires	Basic CSR and compliance	2
	Regularly assigned employees	Basic CSR and compliance	2
	Q, R category promotion/transfers	Basic compliance	3
	Newly appointed S category	Compliance, export security management, competition law	1
	Newly appointed key personnel	Compliance, export security management, competition law	1
	Level 2 key personnel appointees	CSR and compliance	1
Overseas assignment training (Global training)	Overseas post appointees	Export security management, competition law	1
Legal/Compliance liaison meetings	Other key personnel	Strict compliance with the Subcontract Act; social media and information leaks; updates on insider trading regulations; ways to protect oneself from crime and accidents; current status and countermeasures related to sexual harassment; updates on regulations prohibiting bribery to civil servants in foreign countries and others.	6 (approx. 1,900 people)
Competition law compliance seminar	Directors, key personnel, sales staff	Current practical trends in U.S anti-trust laws	1 (380 people) (Same theme, three venues)
Overseas Group company competition law seminar	Overseas Group companies (South Korea, United States, Europe) directors, key personnel and sales staff	Explanation by lawyers on Competition Law trends and compliance	3 (140 people)
Anti-monopoly law education	Targets depend on content	Explanation of law and regulation details and specific behaviors for compliance with anti-monopoly laws	9 (200 people)
Other education (response to consumption tax increase)	Persons in charge of/responsible for purchasing	Act for special measures to prevent and correct actions that interfere with shifting consumption taxes with intent to ensure the smooth and appropriate price pass-through; commentary on the subcontract act	8 (230 people)

<How to Engage in Business Activities> Thorough Enforcement of Compliance; Risk Management

The NGK Group views compliance as the foundation of CSR and makes an effort to instill this view into employees. We make every effort to strengthen information security and minimize risks in business activities.

Reinforcement of the Risk Management System

The NGK Group works to enhance the level of risk management in an effort to minimize globalizing and diversifying risks in accordance with business expansion.

Potential risks associated with business operations including overseas group companies are comprehensively examined and analyzed in the course of deliberations on budgets, plans and approval for implementation by the Strategy Committee, Executive Committee and other bodies, with an eye to avoiding or preventing risks. The Central Disaster Prevention and Control Headquarters and CSR Committee are charged with responding to emergency situations arising from wind and flood damage, earthquakes, or large scale transportation-related disasters.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
<ul style="list-style-type: none"> Continue to have the CSR Committee periodically confirm and follow up on the status of Company-wide risk countermeasures. (NGK Group) Conduct fourth CSA questionnaire targeting all of NGK. (NGK) 	<ul style="list-style-type: none"> CSR Committee met three times, followed up on status of risk countermeasures. Distributed the fourth Control Self Assessment (CSA) questionnaire to 1,467 people including NGK executive directors and standing corporate auditors <p>1 Risk Countermeasures Based on CSA Questionnaire</p>	<p>○</p> <p>○</p>	<ul style="list-style-type: none"> The CSR Committee will regularly follow-up on the status of Company-wide risk countermeasures. Distribute CSA questionnaire to all domestic Group companies

▼ Initiatives Other Than Above

- a** [Strengthening Understanding of Overseas Group Company Legal Risk Management Status](#)
- b** [Training Aimed at Establishing a Business Continuity Structure](#)

1 Risk Countermeasures Based on CSA Questionnaire

As one part of enhanced risk management structure, NGK and domestic group companies conduct the Control Self Assessment (CSA) questionnaire, which tests the knowledge of respondents regarding potential risks and their impact with the aim of ascertaining and avoiding various potential risks arising from daily business operations.

In fiscal 2013, the NGK 4th CSA Survey was conducted targeting executive directors excluding the President, standing corporate auditors, management staff and S-group personnel including those assigned to domestic Group companies and some persons of responsibility in overseas Group companies, 1,467 people in total. The rate of response was 96.8%, the highest yet, indicating awareness regarding risks has increased.

The CSR Committee followed up three times on the risk response status based on the results of the NGK 3rd Survey conducted in 2011.

a Strengthening Understanding of Overseas Group Company Legal Risk Management Status

The NGK Group is engaged in strengthening its ascertainment of legal risk management status in overseas business to minimize the globalizing and diversifying of risks associated with business expansion.

Twice a year, we ask all overseas group companies to report information pertaining to the status of lawsuits, legal affairs and consultation with lawyers, helpline usage, export controls and access to legal-related information. Major issues are reported to the Compliance Subcommittee and CSR Committee to share information.

In fiscal 2013, the Compliance Subcommittee and CSR Committee also ascertained the status of risk management and confirmed the content of the reports.

We will continue our efforts to ascertain the status of risk management and check the content of the reports.

b Training Aimed at Establishing a Business Continuity Structure

NGK established the BCP Countermeasures Headquarters as an organization for promoting business continuity planning (BCP) company-wide.

In September 2013, a BCP restoration measures meeting led by the President, who is also the head of the Countermeasures Headquarters, was held as part of a training session to confirm the latest damage reports based on a hypothetical scenario involving a large-scale earthquake.

In November, BCP case study training was conducted to verify comprehension and response capabilities with respect to BCP, from the occurrence of a large-scale earthquake, until restoration policies are determined. The BCP action plan was revised according to issues and deficiencies identified during the training.

Going forward, as a measure of precaution and to enable each employee and organization to make appropriate decisions and take appropriate actions, NGK will raise the efficacy of BCP through a variety of training activities.



President Kato (presently serving in an advisory role) led training on preparing for earthquakes.



BCP case study training. NGK aims to establish a business continuity structure through various training activities.

<How to Engage in Business Activities> Thorough Enforcement of Compliance; Risk Management

The NGK Group views compliance as the foundation of CSR and makes an effort to instill this view into employees. We make every effort to strengthen information security and minimize risks in business activities.

Respect and Protection of Intellectual Property Rights

The NGK Group encourages the creation of intellectual property rights with an employee invention incentive system and intellectual property education, and works to ensure its proper acquisition and use of intellectual property rights based on a policy of respect for the intellectual property rights of others and ourselves. Our business, research and development, and intellectual property divisions collaborate closely with the goal of building a competitive patent network for the Company.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Enhance awareness-raising programs for managers. (NGK)	Launched intellectual property strategy after China intellectual property risk workshop held last fiscal year 1 Awareness Programs for Managers	○	Conduct awareness program for managers on innovator intellectual property management
Continue to conduct small group discussion-based seminars for young engineers. (NGK)	Patent Map Usage explanatory meetings were held two times and small group discussion-based seminars were held eight times for young engineers. 2 Young Engineer Training	○	Continue to conduct small group discussion-based seminars for young engineers.

▼ Initiatives Other Than Above

a [Establishing an Employee Invention Incentive System, Encouraging Employee Inventions](#)

1 Awareness Programs for Managers

NGK conducted manager-class awareness programs to enhance intellectual property strategy in the research and development and business divisions, making use of issues identified in these programs in NGK's intellectual property strategy.

In fiscal 2013, NGK launched an intellectual property strategy related to competitor patent application trend search and NGK technology's protection by know-how after last fiscal year's intellectual property training session on the subject of intellectual property risks in the China market. In fiscal 2014, we plan inviting a university professor to conduct an awareness program for managers on the subject of innovator's intellectual property management.

2 Young Engineer Training

NGK continuously conducts presentations on patent map utilization and uses educational graphs and charts for the visualization of intellectual property information targeting mainly young engineers in research and development divisions. e-learning has been used Company-wide for basic education.

In fiscal 2013, presentations on patent map utilization were held twice, with a total of five employees taking part. 55 employees participated in e-learning. Furthermore, interactive-style small group seminars were held eight times primarily for young engineers in the research and development and business divisions. These seminars were attended by a total of 57 employees who exchanged opinions on subjects including fundamental patent knowledge, how to view inventions seen in patent applications by other companies, internal invention incentive system, prior art search and how to read patent specifications.

▶ Intellectual Property Education for Young Engineers Conducted in Fiscal 2013

Name	Held	Participants	Details
Patent Map Usage Briefing	2	5 people	<ul style="list-style-type: none"> ▪ Instruction and practice with map-making software
Small group discussion seminar	8	57 people	<ul style="list-style-type: none"> ▪ Patent fundamentals ▪ How to view inventions seen in patent applications by other companies ▪ Internal invention incentive system ▪ Prior art search ▪ How to read patent specifications
e-learning	1	55 people	<ul style="list-style-type: none"> ▪ Meaning of patent rights for company activities; What are patent rights? Requirements of patent rights.

a Establishing an Employee Invention Incentive System, Encouraging Employee Inventions

We established an employee invention compensation system comprised of application incentives, registration incentives and performance incentives to encourage employee inventions. Performance incentives are made up of usage at NGK, licensing, transfer and cross-licensing; usage at NGK is for patents used for profitable products, with a portion of that profit distributed to the inventor.

Since the system was established, a portion of the profit from products including HONEYCERAM, Diesel Particulate Filters, and heaters and electrostatic chucks for semiconductor manufacturing apparatus has been distributed to the inventors.

Patents and the amount of performance incentives applicable under the performance incentive system are determined through deliberation by the Invention Incentive Committee.

<How to Engage in Business Activities> Thorough Enforcement of Compliance; Risk Management

The NGK Group views compliance as the foundation of CSR and makes an effort to instill this view into employees. We make every effort to strengthen information security and minimize risks in business activities.

Creation and Consistent Improvement of a Framework for Information Security

To ensure the proper management and use of information assets, the NGK Group CSR Committee's Security Subcommittee takes responsibility for supervising overall information security, and supports the General Affairs and Information Systems divisions in their efforts regarding personal information and document security control, IT network security control, and other issues.

The rapid evolution of information and communications technology and devices has made the quest for consistent IT security on a Group-wide level an urgent concern. In fiscal 2010, IT security was unified under a common standard within the Group. Since fiscal 2011, NGK has been advancing initiatives aimed at increasing the level of IT security.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Enhance each division through training and other support (NGK)	Complete at all Group companies. 1 Promoting Enhanced Group IT Security Levels	○	Continue to follow up on security measures and strengthen software management

1 Promoting Enhanced Group IT Security Levels

In fiscal 2013, we updated the operating systems (OS) for which support ended in April 2014 on personal computers throughout the entire Group. However, there was difficulty updating the OS of some computers, calling for the implementation of separate security measures. With NGK's support, these measures were completed for the entire Group.

Going forward, we will follow-up to ensure the appropriate security measures continue to be taken with those computers having OS that were unable to be updated.

In addition, in recent years the importance of software management from the perspectives of security and compliance has gained prominence, thus we will focus efforts on software management throughout the entire Group.

<How to Engage in Business Activities> Thorough Enforcement of Compliance; Risk Management

The NGK Group views compliance as the foundation of CSR and makes an effort to instill this view into employees. We make every effort to strengthen information security and minimize risks in business activities.

Strict Adherence to the Anti-Monopoly Act, Subcontract Act, and Other Laws and Regulations Pertaining to Business Transactions

The NGK Group is, as part of its compliance enhancement activities, committed to strictly and thoroughly observe business related laws and regulations such as the Anti-Monopoly Law and the Subcontractor Protection Law.

The NGK Group endeavors to eliminate unfair trade practices and to establish and maintain a fair and equal relationship with its trading partners by enhancing employee education, both in Japan and overseas to familiarize employees with the Competition Laws Compliance Rules established in FY2011.

Topics 2013

- ▶ [Reinforcing Efforts to Observe Competition-Related Laws](#)



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Regularize competition law seminars led by lawyers at Group companies in the United States and Europe (NGK Group)	Conducted competition law seminars at Group companies in Korea, the United States and Europe 1 Reinforcing Efforts to Observe Competition-Related Laws	○	Continue regularization of seminars, etc.
Make employees fully aware of and observe the Competition Law Compliance Handbook. (NGK Group)	Conveyed latest information on competition laws to inculcate thorough awareness 1 Reinforcing Efforts to Observe Competition-Related Laws 2 Individual Support to Business Groups and Group Companies	○	Promote thorough awareness and use of competition laws handbook

1 Reinforcing Efforts to Observe Competition-Related Laws

The NGK Group endeavors to strictly and thoroughly observe business related laws and regulations such as the Anti-Monopoly Act and the Subcontract Act.

To strengthen our compliance system for competition laws, we established Competition Laws Compliance Rules in fiscal 2011 as one of the company rules that define compliance duties for officers and employees, management structure and matters that must be observed or are prohibited.

In fiscal 2013, to inculcate a thorough awareness of these rules, we provided the latest information of Competition Law and explanations of the rules at various Competition Law training sessions. We also made an effort to spread awareness through commentary at various compliance training sessions on the Competition Law Handbook, which presents guidelines for specific behaviors required for staff to observe Competition Laws. This handbook was created in fiscal 2012 and distributed to all NGK directors and employees (all management staff and regular staff in divisions whose activities are within the sphere of Competition Laws).

Once again this year, an attorney was invited as an outside lecturer to conduct Competition Law Compliance presentations, which were conducted at three venues. NGK directors and management staff totaling approx. 360 people attended these lectures. Overseas Group companies in South Korea, the United States and Europe also invited attorneys from Japan or their country to explain Competition Law details and enforcement status and to conduct seminars on important points for observing Competition Law in the workplace.

NGK will continue to conduct Competition Law training next fiscal year including at overseas Group companies.

Conducting Lectures on Competition Law Observance in Each Region

As one component of education aimed at strengthening NGK's Competition Law compliance structure, lectures are conducted for directors, management staff from Sales and other divisions and salespeople.



Lectures Related to Competition Law Observance Conducted at Business Offices

Ms. Alison L. Smith, Lecturer



Partner at the Houston, Texas offices of McDermott Will & Emery. Served as Deputy Assistant Attorney General in the Antitrust Division of the U.S. Department of Justice. Provided NGK employees with a lecture including points to consider in daily business

practice in the context of recent international trends in Competition Law.



Competition Law Compliance Handbook

Seminar
presented by
outside lecturer
Approx. 360
participants (directors,
management staff
and sales staff)

Conducted: 1 time (same theme at three venues)
1 time for directors, 2 times for management and sales staff
Content: Current practical trend of U.S. Anti-trust Law

Education
targeting overseas
Group companies
Approx. 140
participants

Conducted: South Korea and Europe 1 time, United States (DVD training/conducted at each company) 1 time
Content: Competition Law explanation and points to remember in the workplace

Competition
Law training led
by in-house lecturer
Approx. 200
participants (business
divisions/Group
companies)

Conducted: 9 times
Content: Specific activities for the observance of Competition Laws

2 Individual Support to Business Groups and Group Companies

In order to enhance compliance with business related laws including the Subcontract Act, the NGK Legal Department has been extending support, such as individual training, to NGK's business divisions and domestic group companies. The Legal Department offers a variety of support in response to requests from business divisions and domestic group companies, including consultations, preparation of necessary documentation and confirmation of compliance situations.

Again in fiscal 2013, the Legal Department supported business divisions and domestic group companies by preparing documents necessary to meet the needs of each individual division or group company. In addition, they held explanatory meetings on the Subcontract Act and the Act for Special Measures to Prevent and Correct Actions that Interfere with Shifting Consumption Taxes with Intent to Ensure the Smooth and Appropriate Price Pass-Through enacted in October 2013.

<How to Engage in Business Activities> Thorough Enforcement of Compliance; Risk Management

The NGK Group views compliance as the foundation of CSR and makes an effort to instill this view into employees. We make every effort to strengthen information security and minimize risks in business activities.

Strict Adherence to Laws and Regulations Relating to Export Management

As a global provider of goods and services, the NGK Group develops its business on the basis of complying with the Foreign Exchange and Foreign Trade Act and other export control-related laws and regulations. In addition to establishing internal systems, each year, we train members of each business division to deepen understanding of compliance with export control-related laws and regulations in order to realize strict compliance.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	Evaluation ★	A FY2014 Plan and Targets
Raise divisions to a higher level by supporting their educational and other activities. (NGK)	<p>Launched integrated management of customs clearance status of company-wide import cargo and inculcated thorough awareness of import/export handbook</p> <p>1 Strict Implementation of Secure Screening and Export/Import Procedures</p>	○	Ongoing study meetings and training related to import/export management

1 Strict Implementation of Secure Screening and Export/Import Procedures

In response to the Foreign Exchange and Foreign Trade Act and other export control-related laws and regulations, NGK screens exports and judges whether export licenses are required and records screening results in a security export control database.

In fiscal 2013, NGK began integrated management of the customs clearance status of import cargo company-wide with the addition of a new import cargo management ledger function to the database. This enables awareness of each individual import item-related activities conducted at each onsite location and is linked to stronger observance of related laws and regulations.

NGK also made efforts toward thorough compliance with the Export/Import Handbook, which summarizes items for the observance of export/import customs clearance regulations. In addition to publishing this handbook on the company intranet, we provide education to spread awareness of the handbook through study meetings related to export/import management conducted internally in each business division.



Export/Import Handbook

<How to Engage in Business Activities> Respect of Humanity and Assurance of Comfortable Working Environment

The NGK Group makes an effort to respect the humanity of its employees and provide a safe and comfortable working environment. In the interest of fair treatment, NGK employs a human resources system that enables employees to maximize their potential.

Maintenance and Consistent Improvement of Safe and Comfortable Working Environments

Aiming for zero industrial accidents, NGK introduced Occupational Safety and Health Management System (OSHMS) in fiscal 2007 as a mechanism for the ongoing implementation of systematic and safety and health initiatives. Since then, we have made efforts to thoroughly embed and operate this system and strengthen risk assessment.

Also, we are proactively engaged in improving the health of our employees. In recent years, we have focused on reducing long work hours and health management for employees who work long hours.

Topics 2013

- ▶ [Promoting Safety and Health Activities at Overseas Group Companies](#)



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Follow up at Company-wide level to ensure all risks are identified and countermeasures formulated. (NGK)	Strengthened three-year risk assessment scenario, conducted activities surpassing second year objectives 1 Focusing Efforts on Heightened Safety Awareness	○	Focus efforts on safety training to prevent accidents before they occur
Extend Company-wide activities to get approval as a 5S workplace. (NGK)	489 teams at three plants conducted activities, all teams acquired certification 2 Company-wide 5S Activities Include Administrative Divisions	○	Promote 5S workplace certification activities, continue to develop company-wide
Continue health management for employees who routinely work long hours. (NGK)	Number of employees receiving health checks and interviews declined significantly 67% compared to the previous fiscal year 3 Promoting Interviews and Health Checks for Employees Working Long Hours	○	Continue health management for employees who routinely work long hours.

▼ Initiatives Other Than Above

- [a Promoting Safety and Health Activities at Overseas Group Companies](#)
- [b Strengthen Occupational Safety and Health Management](#)
- [c Extention of Activities Supporting Mental and Physical Health](#)
- [d Respect for Human Rights and Thorough Prevention of Harassment](#)
- [e Proactive Exchange of Opinions Among Labor-Management Regarding Management Issues and Welfare](#)

Topics 2013

a Promoting Safety and Health Activities at Overseas Group Companies

NGK conducts safety and health activities at each of its overseas Group companies. In fiscal 2013, to enhance initiatives at each company, a database was created to share information on workplace accidents and countermeasures among overseas Group companies.

In fiscal 2014, we will promote initiatives aimed at cultivating global safety and health culture.

China



NGK CERAMICS SUZHOU CO., LTD.

NGK established an occupational safety and health management system (OSHMS) at this company in 2009. In terms of independent activities, month-long emphasis activities are conducted with a different theme each month, systematic safety checks are implemented after monthly Company-wide Safety and Health Committee meetings and workplace environmental improvements related to noise, heat and dust are also carried out.

In fiscal 2013, case studies on past workplace accidents occurring at NGK were presented and included in the safety training for new employees. As these were accidents that actually occurred, the effect of the training on employees was strong, resulting in a drop in the number of accidents compared to the previous year, from four incidents to just two.



South Africa



NGK CERAMICS SOUTH AFRICA (PTY) LTD.

Having officially earned international OSHMS standard OHSAS18001 certification (2007 version) in 2012, this company is proactively engaged in safety and health activities including ongoing risk management.

In fiscal 2013, efforts were made to prevent accidents from recurring by applying the 8D problem-solving method, which approaches improvements from the perspective of eight categories related to safety and health.

In fiscal 2014, efforts will be focused on operational improvements and the prevention of accidents through initiatives including toolbox meetings to confirm procedures and safety before work begins.





NGK CERAMICS MEXICO, S.DE R.L.DE C.V.

This company has been proactively engaged in safety and health activities since it began operations in 2011.

At daily meetings, Human Resources Safety and Health Group people announce reminders to worksite leaders and their superiors. This group also holds environmental health and safety (EHS) meetings each month where section managers and their superiors gather to exchange opinions related to safety and health as well as report on accidents or injuries.



1 Focusing Efforts on Heightened Safety Awareness

After an accident at the Chita Site in July 2012, NGK formulated a three-year action plan and strengthened safety measures.

In fiscal 2013, we continued the exhaustive risk assessment which we began in fiscal 2012, formulating measures sequentially against the risks picked up from operations which are based on the degree of importance and danger. Responding to this serious accident with sincerity, we instantly moved to expand the scope of assessment, conducting an emergency review of the potential for serious accidents, such as getting caught or pulled into machinery and electric shock hazards, with the aim of promoting both tangible and intangible safety countermeasures.

Fiscal 2013 marks year two of the three-year action plan and we have already completed 75% of all exhaustive risk assessment work. We also provided education on residual risks at all worksites.

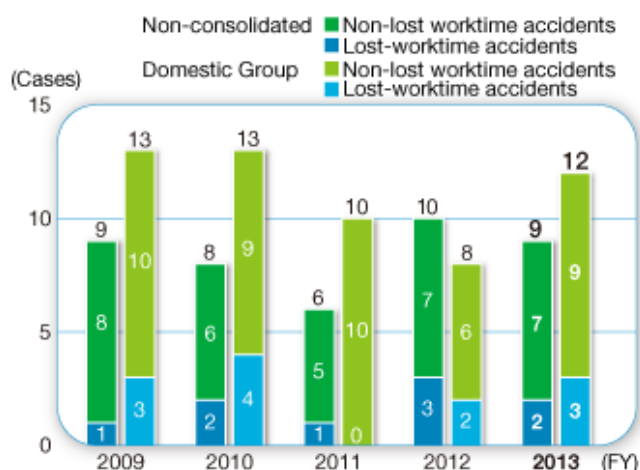
■ Safety and Health Education Targeting the Prevention of Workplace Accidents

Up to now, NGK has provided education to enhance safety and health awareness among employees. In addition to the continued provision of position-based safety and health education related to injury prevention, health maintenance and traffic safety from last fiscal year, we provided experiential safety education for new hires led by an outside consultancy. This training conveyed the importance of safety through an experience of hypothetical workplace danger scenarios such as being caught up in rotating machinery, smashing fingers, falling from high places and electric shocks in an attempt to improve awareness regarding the observance of rules and the prevention of injuries.

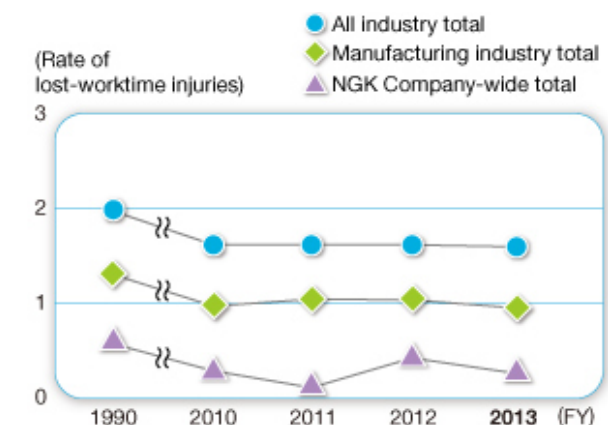
Nevertheless, the number of accidents in fiscal 2013 remained at nearly the same level as in the previous fiscal year (see chart below). While tangible causes of accidents such as defective equipment decreased, accidents caused by intangible factors such as a lack of caution and insufficient awareness increased, illustrating the need to further enhance safety awareness.

Going forward, we will increase our focus on safety education, making every effort to prevent accidents and raise safety awareness.

▶ Work-Related Accidents (NGK and 15 Group Companies Involved in Domestic Manufacturing)



▶ Rate of Lost-Worktime Injuries (NGK)



Note: Rate of lost-worktime injuries: One safety indicator showing the rate of occurrence of labor accidents, which is calculated based on the

2 Company-wide 5S Activities Include Administrative Divisions

Since fiscal 2012, NGK has been promoting the expansion of 5S* activities Company-wide to include administrative divisions.

Teams formed in each workplace promote the establishment of team objectives and periodic times to conduct activities. Teams that clear assessment standard check items are certified as 5S workplaces.

In fiscal 2013, the activities of 489 teams in three workplaces all received certification. Successful examples were reported to the Company-wide Safety and Health Committee and developed throughout the company.

* Sort, Set in order, Shine, Standardize and Sustain the workplace.



An example of improved displays.
Labels indicating inventory units prevent inventory shortages and over-purchasing.



Innovative was to ensure existing inventory items are selected before unused items.
This also eliminates time loss searching for inventory items.

3 Promoting Interviews and Health Checks for Employees Working Long Hours

NGK regular employees working long hours are provided with health checks and interviews with an industrial physician. Since April 2011, key personnel (management) have also been included in these initiatives.

In addition to making clear an employee's workload and work procedures, these interviews and health checks may result in limiting overtime work when necessary. As a result of these measures, the number of regular employees seeking interviews and health checks was 116 people, while management staff totaled 47 people, a significant decline of 67% compared to the previous fiscal year. We also conduct these initiatives overseas.

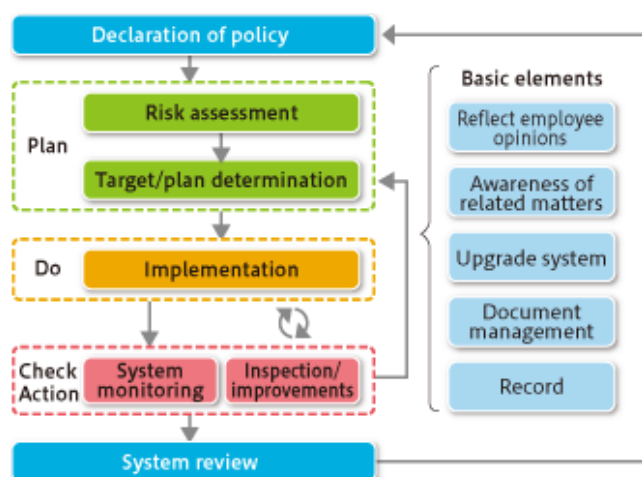
b Strengthen Occupational Safety and Health Management

Aiming for zero industrial accidents, NGK is promoting the creation of an occupational safety and health management system. Under the Company-wide Safety and Health Committee, an organization covering all sites (manufacturing bases), we have established Safety and Health Committees at each site, department and factory, and conduct safety meetings in each workplace, applying a PDCA cycle consisting of Risk assessment → Target/plan determination → Implementation → System monitoring → Inspection/improvement, with the aim of systematic and organizational improvement of occupational safety and health activities.

These activities include initiatives aimed at acquiring OSHMS certification at domestic key sites via the Japan Industrial Safety and Health Association, which we acquired at the Nagoya Site in 2008 and at the Chita and Komaki Sites in 2009. As a serious accident occurred at the Chita Site in July 2012, we declined renewal inspections and focused efforts on conducting improvements. In October 2013, the site was inspected again and passed certification.

Going forward, NGK will continue to focus efforts on improving the working environment.

▶ PDCA Cycle



▶ Status of External Certification Acquisition

Site	Year Acquired	Renewal
Nagoya	2008	2011
Komaki	2009	2012
Chita	2009	2013



Gran Prix Held to Test Forklift Safety Skills

From the second half of fiscal 2013, the NGK Plants in headquarters engaged in further strengthening of its safety activities by holding a forklift safe driving contest called the L-ANE Grand Prix. L-ANE stands for lift (L) safety (AN) and enjoy (E).

In this first grand prix, a total of 12 employees from five manufacturing groups(10 employees) and one administrative group(2 employees) participated. The contestants loaded water-filled goldfish bowls and tall stacks of cargo onto the forklift to compete on the safety of their driving and precision of their unloading skills.

Going forward, we will attempt to increase safety awareness through a variety of initiatives and plan to develop successful activities at other plants.



The winners praised by the plant general manager (middle).



A contestant tries not to spill the water in the goldfish bowl as he verbally confirms safety in a loud voice.

C Extention of Activities Supporting Mental and Physical Health

NGK has always emphasized the importance of promoting the health, both physical and mental, of its employees.

The medical status of employees working long hours and the condition of those who need medical treatment are reported at monthly Safety and Health Committee meetings held at each site in an effort to thoroughly promote the management of overtime work.

We also regularly report on self and line care in terms of employee mental health to illuminate employee awareness and response.

In addition, we conduct ongoing position-based mental care education. Again in fiscal 2013, we provided education for new hires, regular employees and key personnel totaling 618 people. The education of key personnel focused on practical study, not only learning from traditional teaching materials, but practicing mental responses in the workplace and practicing methods of listening closely and self-reliance.

To promote a smooth return to work, NGK gives consideration to employees on sick leave, providing systems such as starting back to work on a half-day basis, gradually increasing to regular work hours after consultation with an industrial physician, enabling employees to devote their full attention to recovery with peace of mind.

Also, in consideration of the various stress-inducing aspects of overseas postings, such as climates, cultures and environments that differ from Japan, NGK makes an effort to provide health consultations focused on mental healthcare. In fiscal 2012, medical exams and interviews were conducted mainly in China.

We also provide care for the minds and bodies of all our employees at Group companies in Japan and overseas, in accordance with policies recommended by the Ministry of Health, Labour and Welfare.

We will continue these activities in fiscal 2014.

Fiscal 2013 Mental Care Education Achievements (Domestic Non-Consolidated)

Target Divisions/Employees	Conducted (times)	Participants	Main Themes/Details
regular employees	4	289	Mental fundamentals (self)
(among which are section chiefs)	2	76	Self + line care
New hires	2	92	Mental fundamentals
Key personnel	2	98	General mental knowledge
(among which are general managers)	1	63	Overall mental education

d Respect for Human Rights and Thorough Prevention of Harassment

The NGK Group prohibits harassing behavior (for example, sexual harassment or power harassment) by employees, which is injurious to individual dignity and interferes with workplace order and business execution, and takes disciplinary action in response to any violations.

We conduct lectures and position-based training to prevent harassment. General managers, newly appointed managers, newly appointed section heads and managers and other general positions received thorough awareness training corresponding to their position. The prevention of harassment is also incorporated into compliance education.

[Compliance education conducted in fiscal 2013](#) included thorough promulgation of the NGK Group Guidelines for Corporate Behavior through education.

We also provide a helpline for inquiries and reports about harassment in the workplace.

e Proactive Exchange of Opinions Among Labor-Management Regarding Management Issues and Welfare

NGK makes an effort to build labor-management relations founded on mutual trust through communication with various consultative bodies, such as the Labor-Management Advisory Board, the Office Advisory Board and the Regular Labor-Management Council.

The Labor-Management Advisory Board discusses issues regarding company business conditions and achievements, while the Office Advisory Board shares issues related to production systems, working system and other work environment issues. The Regular Labor-Management Council proactively exchanges opinions on labor and management; in fiscal 2013, the topics of work-life balance and various systems related to housing policies were reviewed.

In fiscal 2013, in addition to the opportunity to exchange opinions on the topics discussed, treatment was improved through revisions to the rehiring system, the introduction of a system for taking time off to accompany spouses working overseas and the maintenance of public welfare facilities.



The Labor-Management Advisory Board
(February 2013)

▢ Subjects and Issues Raised in Fiscal 2013

	Details
Labor-Management Advisory Board	(From company) business reports, performance explanations (Q&A) Upcoming business planning, planning of staff and facilities, including at overseas factories
Office Advisory Board	Plant equipment and environmental improvement (nightshift meals, roads, outside lighting)
Regular Labor-Management Council	Review of various systems for the actualization of work-life balance, review of various systems related to housing policies

<How to Engage in Business Activities> Respect of Humanity and Assurance of Comfortable Working Environment

The NGK Group makes an effort to respect the humanity of its employees and provide a safe and comfortable working environment. In the interest of fair treatment, NGK employs a human resources system that enables employees to maximize their potential.

Development of Human Capital and Recruiting of Human Resources across the Group

NGK considers people to be its most critical resource, and we devote our energies to developing the next generation of employees, while respecting their desire to improve and their motivation. In recent years, NGK has concentrated efforts on the enhancement of language training in line with globalization of the business environment, as well as the education of talented employees for management positions.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Optimize training by considering the needs of divisions and participants. (NGK)	Conducted systematic human resources training corresponding to position and occupation 1 Systematic Cultivation of Management, Manufacturing and Global Human Resources	○	Plan highly effective human resource training
Systematic training aimed at strengthening on-site capabilities. (NGK Group)	13 new trainees joined training for the development of in-house instructors, bringing the total number to 25 people 2 Strengthening the Training of Onsite Leaders	○	Promote systematic training in attempt to strengthen onsite capabilities
Ongoing language training (Goal: 80% of new hires score 600 or higher on the TOEIC). (NGK)	85% of new hires achieved a TOEIC score of 600 points or higher 3 85% of Fiscal 2013 New Hires Had TOEIC Score of 600 Points or Higher	○	Ongoing language training (Goal: 80% of new hires score 600 or higher on the TOEIC).

▼ Initiatives Other Than Above

a [Cultivate Global Human Resources, Conduct Practical Overseas Training](#)

1 Systematic Cultivation of Management, Manufacturing and Global Human Resources

NGK is engaged in systematic human resources training covering four areas (management training, manufacturing, global education and business skills) based on training conducted at each juncture of an employee's career, such as when joining the company or receiving a promotion. Other than compulsory level-based training, we conduct functional training, offering approximately 120 types of programs throughout the year introducing selective education aimed at creating leaders and training subjects elected by participants based on title and position. In fiscal 2013, we introduced compulsory training for general employees (P-group) in their first or second year of employment on how to cultivate logical thought and added training to enhance the skills of regular employees (R-group). We also expanded management foundational training traditionally provided to newly promoted group managers to include younger management staff as well.

Manufacturing education covered categories including onsite skill strengthening and supervisor training, while training for younger employees continued to focus on materials, forming, processing, drying, firing and other ceramics manufacturing fundamentals. Global education activities included management training in three areas: English and Chinese communication skills, international law and international human resources.

Having enriched our position-based across-the-board training, at present, we are engaged in planning optimized education in consideration of not only company needs but also divisional and employee needs.

Education structure



Average annual number of hours in training per employee

		Average annual training hours
Gender	Male	29.8 hours
	Female	15.3 hours
Employee category	Management staff	19.7 hours
	Non-management staff	29.9 hours

2 Strengthening the Training of Onsite Leaders

The NGK Group views human resources as its most important management resource. We conduct human resource training that respects employee ambitions and aspirations, creating the next-generation of leaders. In recent years, as large numbers of older, experienced employees reach retirement age, the percentage of on-site employees with less career experience increases. Accordingly, NGK conducts systematic training in an attempt to strengthen on-site capabilities.

From fiscal 2011, NGK began training to develop in-house instructors with the aim of educating human resources able to lead the manufacturing divisions. Three courses between seven and 18 days in duration were held on low-cost management and set-up improvement guidance. In fiscal 2013, 13 employees who completed leader training attended in addition to the 12 employees already graduated, bringing the total number of instructors to 25 people and enhancing our human resources ability to lead. In fiscal 2014, we plan to conduct training to brush up the skills of these instructors.

Furthermore, in fiscal 2011, NGK began training for all manufacturing site worksite leaders aimed at improving the leadership qualities and communication skills of on-site leaders that guide and educate younger employees. In fiscal 2013, 25 newly appointed worksite leaders underwent training on labor management and recognition of the role of the worksite manager.

3 85% of Fiscal 2013 New Hires Had TOEIC Score of 600 Points or Higher

One part of NGK's global education efforts is for all employees to achieve a TOEIC score of 600 points or higher in their first year of employment. To this end, we began providing new hires with English training in fiscal 2011.

In fiscal 2013, all 60 new hires were provided with two five-day intensive English language training sessions and seven full-day group training sessions held monthly, for a total of 17 days of language training. The training focuses on fundamentals such as grammar and listening and are conducted by Japanese and native instructors working in tandem according to employee skill level. Practical sessions included speaking on the telephone, in meetings, during negotiations and using English in other business situations. After each session, participants engage in a group discussion in an attempt to maintain and improve motivation. As a result, at the end of fiscal 2013, the ratio of employees who achieved a score of 600 points or higher on the TOEIC increased from 70% last fiscal year to 85% this fiscal year.

Going forward, NGK will continue to conduct training optimized to meet the level of participants to cultivate fundamental English abilities and practical skills.

a Cultivate Global Human Resources, Conduct Practical Overseas Training

Since fiscal 2010, we have conducted practical overseas internships (trainees) with the aim of cultivating human resources competent at global business.

The aim of this training is to attempt to teach communication skills in other cultural contexts and practical business capabilities to younger employees who are candidates for future overseas assignments. For approximately six months the employee is dispatched to an overseas Group company to study English intensively for two months and then participate in practical training for two to four months with the goal of developing language abilities and business skills.

In fiscal 2013, six employees were nominated by their divisions and sent to Group companies in the United States, China and Mexico. Of the 38 employees who had participated in this training as of fiscal 2013, 25 had already been posted overseas and were making use of language skills developed in training, the ability to communicate in different cultural contexts and business skills developed through practical training. The remaining 13 employees made use of their preparation and training in daily overseas operations and overseas business trips.

<How to Engage in Business Activities> Respect of Humanity and Assurance of Comfortable Working Environment

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Utilization of Diverse Human Resources

It is NGK Group basic policy to recruit human resources and offer stable employment and equal opportunities regardless of race, nationality, belief, gender, or disability. Also, in an aim to promote autonomy and independence, NGK maintains the human resource systems necessary to provide employees with fair compensation commensurate with their degree of contribution to the company.

Topics 2013

- ▶ [Promoting the Recruitment of Female Managers In Japan and Overseas](#)



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Achieve legally stipulated employment rate of 2.0% after requirement increase (NGK)	Achieved the 2.07% legally mandated ratio. 1 Employment of People With Disabilities Surpasses Legally Mandated Ratio	○	Maintain legally stipulated employment rate of 2.0% or higher
Continue to promote use of system for transferring to general employment jobs. (NGK)	As of fiscal 2013, a total of 69 employees had transferred jobs 2 Encouraging Women to Actively Participate with a System for Transferring from General Employment Jobs	○	Continue to promote use of system for transferring to general employment jobs.

▼ Initiatives Other Than Above

- a** [Promoting the Recruitment of Female Managers In Japan and Overseas](#)
- b** [Ongoing Expansion of Employment and Positions for Women as a Company Promoting Women's Activities](#)
- c** [Two Systems for Making Use of Employee Individuality and Skills](#)
- d** [Extending Transfers to Regular Employment and Double Promotions to Contract Manufacturing Employees](#)
- e** [Management of Follow-up System to Fit Young Employees in the Workplace](#)
- f** [Updating System for Rehiring Employees to Include Half-Time Employment Option](#)

a Promoting the Recruitment of Female Managers In Japan and Overseas

In fiscal 2013, the number of female managers (management staff) increased from eight to 12 people, 1.5 times compared to the previous fiscal year.

In addition to efforts aimed at increasing opportunities for motivated and skilled women on a career track to make significant contributions, the NGK Group is engaged in creating a comfortable working environment for women.



Focusing Efforts on Human Resource Cultivation and Formulation of Management Strategy as a Director

As the Vice President of Human Resources, I am responsible for all areas related to employees, including hiring, labor, benefits design, and the formulation of human resource systems. I also work in close cooperation with the President, focusing my efforts on the formulation of corporate management strategy.

There is one other mission that, as a member of management, I must not forget: the cultivation of a successor. I hope to cultivate human resources that will successfully lead the company to realize ongoing corporate development after my generation has retired.



Linda Bundy Williams
Vice-President of Human Resources
LOCKE INSULATORS, INC.



Contributing to Corporate Development through Financial and Tax Affairs

In China, accounting and taxation systems are changing rapidly. Since the company was established in 2001, we have made consistent efforts to reduce risks associated with the impact of these changes. I am proud that my work has contributed to corporate development from the perspectives of financial and tax affairs.

Going forward, to the best of my abilities, I will make an effort to identify and cultivate talented human resources to contribute to all my effort toward further corporate development.

Feng Weihua
General Manager,
Financial Department
NGK CERAMICS SUZHOU
CO., LTD.





Promoting Global Business Development with Technical Knowledge and Overseas Work Experience

I had been responsible to material control at one of our overseas manufacturing locations for three years where I had utilized my career as an engineer about developing raw materials and materials.

At present, I'm in charge of procuring ceramics raw materials in NGK headquarters' Purchasing Department. I make efforts to facilitate stable supply of low cost raw materials for all production bases in Japan and overseas. Ensuring the low-cost and stable procurement of raw materials for all production sites throughout the world is critical not only for maintaining the predominance of existing products, but also for starting-up mass production of new products rapidly. I hope our procurement efforts contribute to the development of future business.



Aiko Otsuka
Manager
Materials Purchasing Group,
Purchasing Department
NGK INSULATORS, LTD.



Engaged in Business Structure Improvements as a Necessary Corporate Activity

As the General Affairs Section Chief, in addition to acting as the secretariat for corporate activities including safety and health, environmental management and the elimination of loss, my job involves employee salaries, insurance and general health.

At present, NGK is engaged in company-wide efforts to realize more efficient and streamlined operations and is making every effort to promote activities making use of its many years of manufacturing technology research in engineering. With a comprehensive view of the entire company, I hope to contribute to an improved business structure through proactive suggestions for other divisions and practical encouragement.



Masako Noda
Section Chief,
General Affairs,
Administration Dept
IKEBUKURO HORO KOGYO
CO., LTD.

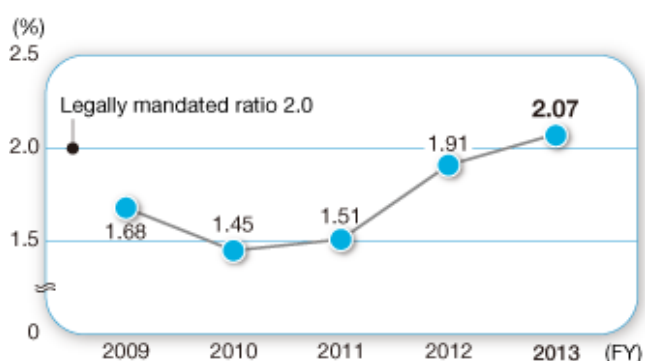
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Employment of People With Disabilities Surpasses Legally Mandated Ratio

The NGK Group is engaged in initiatives to expand employment of people with disabilities. As a result of promoting employment by accepting students from special needs schools as trainees and hiring participants from employment seminars for people with disabilities, the ratio of people with disabilities employed by NGK at the end of fiscal 2013 was 2.07%, which exceeded the legally mandated ratio of 2.0% instituted in April 2013.

Going forward, NGK will make an effort to maintain and expand the ratio of employees with disabilities.

Percentage of Employees with Disabilities (NGK)



2 Encouraging Women to Actively Participate with a System for Transferring from General Employment Jobs

In 1992, NGK created the System for Transferring from General Employment Jobs, enabling employees who joined the company in general employment positions to transfer into career-track positions offering a wider range of duties and specializations.

Career plan roundtable discussions led by employees who have transferred to general employment jobs and other activities to promote use of this system resulted in a total of 69 employees transferring jobs by fiscal 2013.

b Ongoing Expansion of Employment and Positions for Women as a Company Promoting Women's Activities

As of the end of fiscal 2013, female employees accounted for 13% of NGK's workforce and 1% of key personnel, the same levels as the previous fiscal year. Looking at the seven-year period since the beginning in 2007, 224 (16%) were women out of the 1,404 people hired as permanent employees.

Since fiscal 2012, women continue to join sales locations where before none had been assigned. In fiscal 2013, NGK new hires consisted of 77 men and 11 women, with the proportion of women on the rise compared to the previous year.

In recognition of initiatives aimed at establishing and expanding employment and positions for women, in January 2012, NGK was recognized as a company promoting women's activities by the city of Nagoya.



City of Nagoya Women's Activities Promotion certification logo

c Two Systems for Making Use of Employee Individuality and Skills

To open the way for employees to take full advantage of their individuality and skills, NGK operates an internal job application system, as well as a system for registering career track enabling applicants to register their work history, qualifications and desired position to provide an opportunity for individuals to carry out their work duties with a sense of satisfaction.

In fiscal 2013, two sections were opened in the internal job application system, and one person was approved for a change of section. Five employees utilized the system for registering career track, and although none were able to transfer to their desired section during the fiscal year, we will continue to listen to employee requests and provide support so that all employees are motivated with meaningful work.

Internal Job Application System Results

Fiscal year	2009	2010	2011	2012	2013
Applications (Cases)	4	5	16	3	2
Recruits (People)	7	5	27	4	3
Applicants (People)	5	4	9	8	3
Successful applications (People)	4	3	3	4	1

Career Follow-Up System

Fiscal year	2009	2010	2011	2012	2013
Registered (People)	4	1	2	7	5
Transferred (People)	3	0	2	2	0

d Extending Transfers to Regular Employment and Double Promotions to Contract Manufacturing Employees

NGK seeks to strengthen the core workers at manufacturing sites from the perspective of employee evaluation and treatment. To this end, we established a system enabling contract manufacturing workers to transfer to regular employment positions. In fiscal 2013, 4 employees transferred to regular employment positions.

Excellent workers out of the ones who could transfer to regular employment positions also have a chance at promotion by two ranks of company qualification. In fiscal 2013, 7 employees were promoted under this system.

Transfers from Contract Manufacturing Worker to Regular Employee

Fiscal year	2009	2010	2011	2012	2013
Transfers to regular employee	15	14	23	17	4

Double Promotions

Fiscal year	2009	2010	2011	2012	2013
Transfers to regular employee	-	11	11	11	7

e Management of Follow-up System to Fit Young Employees in the Workplace

To prevent career mismatches, NGK employs a follow-up system for younger employees. We conduct surveys and interviews about jobs and the work environment for career-track employees in their second year and manufacturing technology staff in their third or fourth year of employment. If they desire, feedback is provided to the managers responsible for these employees.

Once again in fiscal 2013, the Human Resources Department Employment Group conducted a survey targeting all employees and offered consultation and advice in response to employee questions and concerns.

For the past three years, the unemployment rate within the first three years of employment has remained flat at 2.0%, which we think demonstrates the efficacy of our initiatives aimed at following-up with young employees.

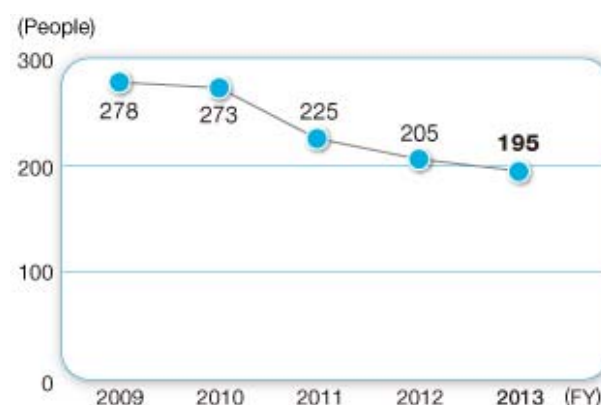
f Updating System for Rehiring Employees to Include Half-Time Employment Option

NGK has introduced rehiring system after retirement for regular employees since April 2001, and for management staff since April 2007 respectively. As of the end of fiscal 2012, we had 205 rehired employees, which is equivalent to 6.0% of the total workforce.

In fiscal 2013, we will upgrade this system in accordance with the work style for senior employees by choosing full-time or half-time employment options.

As of the end of fiscal 2013, we had rehired 195 employees, equivalent to approximately 5.0% of the total workforce, of which approximately 32% are half-time employees.

Rehiring Employees



<How to Engage in Business Activities> Respect of Humanity and Assurance of Comfortable Working Environment

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Support for Better Balance between Work and Home Life/Childrearing

NGK is engaged in the creation of an environment that supports employees at work and at home. With regard to childrearing in particular, we strengthened the pillar of our support measures, consideration for working hours and economic support, and strive to further expand these measures. We are also making efforts toward thorough awareness and compliance with the formulation of eight rules that should be followed, initiatives promoting a work-life balance and, through cooperation between labor and management, the curtailment of employees required to work long-hours.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Thorough observance of rules regarding working hours. (NGK Group)	Exchanged opinions and launched study meetings involving labor and management 1 Leaving Work on Time Expanded to Two Days Per Week Work-Life Balance Actualization Card Created	○	Work with labor union to promote rectification of long working hours
Increase use of expanded childrearing support measures. (NGK Group)	Expanded use of system for working shorter hours while raising children 2 Childcare Support System Users Are on the Rise	○	Increase use of expanded childrearing support measures.

▼ Initiatives Other Than Above

a [Certified by the Ministry of Health, Labour and Welfare as a Company Supporting Childcare](#)

1 Leaving Work on Time Expanded to Two Days Per Week Work-Life Balance Actualization Card Created

NGK is engaged in the creation of an environment that makes work easy for employees who are both working and raising children or providing care for a family member.

In fiscal 2011, the company announced eight rules formulated by management and labor over the three-year period ended in fiscal 2010 to promote the prevention of employee health issues and support work-life balance. We promoted awareness of eight priority rules including, limiting overtime working hours to 80 hours or less per month; limiting the number of months in which 45 or more hours outside business hours can be worked to six months each year; providing at least six days of paid leave each year to employees excluding new hires in the current fiscal year; observing Refresh Wednesdays, a day when no overtime is required; and no working more than seven days in a row without a day off.

In fiscal 2013, refresh days (leaving work on time) were expanded to every Wednesday and Friday each week. For a variety of reasons, in the event an employee anticipates the need to work more than 45 hours per month, a discussion between labor union and management is conducted before hand to confirm the reason for increase of overtime work, and if possible, distribute time or workload more equally or assign additional workers to mitigate the burden on individual employees.

Each year, the status of working hours and paid holiday acquisition are disclosed to the labor union, upon which opinions are exchanged and countermeasures are deliberated. Regarding employees identified as working long hours, depending on the frequency of the occurrence, individual deliberations are conducted with the labor union at individual workplaces to discuss countermeasures.

In addition, the Human Resources Department and the labor union hold a work style examination committee study meeting aimed at realizing a full work-life balance where employee awareness regarding working styles and working hours is examined and considered. In January 2014, a pocket-sized work-life balance actualization card was created and distributed to all employees to promote the utilization of paid holidays and a variety of work style options.

Going forward, we will make an effort for improvements regarding working long hours from the perspective of preventing deleterious effects on health.



Work-life balance
actualization card

2 Childcare Support System Users Are on the Rise

In 2010, NGK established new rules related to child care and is engaged in expanding child care support measures. In addition to core support from the perspectives of contribution to working hours and expanded financial assistance, we established a half-day paid holiday system and shortened working hours. From an economic perspective, we increased the amount of maternity gift payments, established a gift payment for starting elementary school and established a babysitter expense subsidy system. Furthermore, from fiscal 2011, NGK started preferentially allotting employee parking spaces within the vicinity of the headquarters to employees raising children.

In fiscal 2013, four years after support measures were expanded, usage continued to expand with 37 employees taking advantage of shortened working hours to raise their children, four more people than the previous fiscal year. The half-day paid holiday system was utilized an average of 7.5 times per employee and continues to rise.

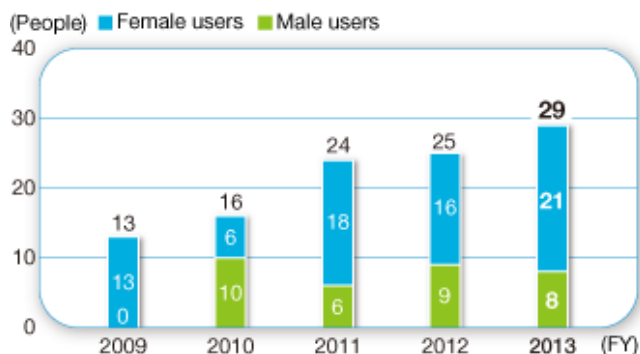
In addition, the number of employees taking advantage of the traditional childcare holiday system is increasing each year. In fiscal 2013, four more employees utilized this system than in the previous year, a total of 29 employees, of which eight were men.

Since the inception of the childcare holiday system until fiscal 2013, a total of 270 employees (33 men and 237 women) have utilized the system, with 100% of the men and 65% of the women returning to the workplace.

In addition to expanding childcare support measures, NGK is making efforts in other areas. A work and family support site was created on the company intranet to explain various systems and support measures, as well as introduce feedback from users of these systems and provide case studies for reference purposes. In fiscal 2012, a consultation function was added, enabling employees to communicate directly with the people responsible for facilitating support. The same information is provided in internal company reports. Furthermore, employees taking time off to give birth or care for children are provided with a presentation explaining how these systems work, which includes the participation of their supervisor to ensure both sides have a clear understanding of what these policies entail in an effort to create an environment in which taking advantage of these systems and support is as easy for the user as possible.

Going forward, NGK will continue its efforts to create a workplace environment that supports both work and family.

Utilization of Child Care Leave System (NGK)



Feedback from employees who have utilized childcare holiday systems is provided on the company intranet to promote their use.

▶ Utilization of Child Care Leave System (NGK)

System	Details	Number of Users (Fiscal 2013)
Leave before/after childbirth	Paid leave six weeks before childbirth, eight weeks after childbirth	22
Child care leave	Paid leave until the last day of the month in which the child turns one year old (Possible to extend if child does not go to preschool or daycare)	29 (of which eight were male)
Shortened working hours while raising children	Until April when the child begins fourth grade, employees can choose to work six or seven hour days.	37
Half-day paid leave while raising children	Half-day paid leave, can be used 14 times (seven days total)	Average 7.5
Maternity gift payment	¥50,000 yen gift payment per child (from the Families Fund)	165
Gift payment at start of elementary school	¥50,000 yen gift payment per child (from the Families Fund)	134
Babysitter expense subsidy	Subsidy of up to ¥100,000 per year for babysitter expenses (including preschools, etc.) up to March 31 of third year in elementary school.	26
Priority parking spaces	Priority parking lot created in Nagoya for employees caring for small children (parking lot spaces are usually determined by lottery)	13

a Certified by the Ministry of Health, Labour and Welfare as a Company Supporting Childcare

In fiscal 2012, NGK was certified as a Company Supporting Childcare and received the Kurumin mark based on the Ministry of Health, Labour and Welfare's Act for Measures to Support the Development of the Next Generation. Since 2005, NGK has formulated ordinary entrepreneur action plans and continued initiatives supporting both work and child care, and in March 2010, we expanded these support measures. We were certified because of child-rearing employee praise for the system and its ease of use, as well as in recognition of the use of paid leave for child care by male employees.

As a result of these initiatives, in February 2011, NGK was certified as a Company Supporting Childcare. In January 2012, we were also certified as a Company Promoting Women's Activities by the city of Nagoya.

From May 2013, NGK's efforts to expand awareness regarding initiatives such as expanded occupational fields and enhanced work environments as a company promoting women's activities have been included on the Ministry of Health, Labour and Welfare's "Positive Action" support website, which supports women's activities.



Kurumin mark

<How to Engage in Business Activities> Implementation of Fair, Free and Transparent Transactions

With a basic policy centered on the three principles of openness and fairness, partnership and relationship with society, the NGK Group is engaged in fair, free and transparent business transactions with the procurement partners in our supply chain.

Fair and Honest Evaluation of Procurement Partners, and Extensive Resource Diversification

The entire NGK Group promotes CSR procurement, which gives priority to employing suppliers with the same amount of consideration for the importance of CSR as the NGK Group, as well as green procurement, which gives priority to purchasing products and services with low environmental impact amid increasing societal demand for the realization of corporate CSR activities as overall supply chain activities.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	Evaluation ★	A FY2014 Plan and Targets
Conduct assessment on 10% of total number of suppliers (NGK)	Conducted visits and assessment on 10% (98 firms) of all suppliers 1 Selecting Suppliers Based on Fair and Honest Evaluation	○	Conduct assessment on 10% of total number of suppliers
Ensure multiple suppliers for important materials. (NGK Group)	Conducted questionnaire on BCP targeting top 50 suppliers 2 Promoting BCP Countermeasures Through the Multiple Procurement of Important Purchases	○	Promote consideration of collected questionnaire results

1 Selecting Suppliers Based on Fair and Honest Evaluation

The NGK Group opens its doors to a wide range of procurement sources, including companies with which it has had no previous transactions.

In terms of selecting new suppliers, we choose from multiple companies through fair and honest evaluation of their CSR initiatives, environmental conservation efforts and financial condition in addition to their quality, cost and delivery (QCD).

Not only is the procurement department involved in the selection of suppliers, multiple departments are also involved in this process requiring multi-stage approval before selection occurs in an effort to ensure fair and honest evaluation and decision-making.

2 Promoting BCP Countermeasures Through the Multiple Procurement of Important Purchases

In the event of unforeseen circumstances such as a major natural disaster, NGK promotes the sourcing of raw materials, equipment, secondary materials and other critical purchased parts from multiple suppliers as part of its BCP efforts to ensure procurement is uninterrupted. For items which are available from only one supplier, we are in the process of insuring that the storage facilities for these items are located in a safe place that cannot be damaged by tsunamis.

In fiscal 2013, we conducted a survey among our top 50 suppliers regarding the status of their BCP manual, emergency contact network, etc., to ascertain conditions and trends at supplier locations.

Going forward, this survey will be used as basic reference material when formulating BCP.



<How to Engage in Business Activities> Implementation of Fair, Free and Transparent Transactions

With a basic policy centered on the three principles of openness and fairness, partnership and relationship with society, the NGK Group is engaged in fair, free and transparent business transactions with the procurement partners in our supply chain.

Promotion of CSR Procurement

The entire NGK Group promotes CSR procurement, which gives priority to employing suppliers with the same amount of consideration for the importance of CSR as the NGK Group, as well as green procurement, which gives priority to purchasing products and services with low environmental impact amid increasing societal demand for the realization of corporate CSR activities as overall supply chain activities.

Topics 2013

- ▶ [In Response to Societal Demands on Procurement Activities](#)



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved


P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
We will integrate Green Procurement Guidelines into CSR Procurement Guidelines and advance from the diffusion (understanding) to factual investigation stage to the compliance (agreement) to expansion stage. (NGK Group)	Combined green procurement and CSR procurement guidelines advanced from "penetration (understanding)—factual investigation" phase to "compliance (agreement)—expansion" phase Added principles regarding "controversial minerals, bribery, human rights and labor" to CSR Procurement Guidelines 1 In Response to Societal Demands on Procurement Activities	○	Carry on with "compliance (agreement—expansion" phase, expand CSR procurement by seeking agreement from new suppliers

1 In Response to Societal Demands on Procurement Activities


Revising CSR Procurement Guidelines, Integrating with Green Procurement Guidelines

In fiscal 2013, the NGK Group updated the content of the CSR Procurement Guidelines in line with basic purchase policies, adding sections on disputed minerals, corruption and principles regarding human rights and labor. This was integrated with the Green Procurement Guidelines to form the new CSR Procurement Guidelines. The new CSR Procurement Guidelines were disclosed to all suppliers of NGK and its Group companies in Japan and overseas, as well as published on the NGK corporate website in Japanese, English and Chinese languages.

"Green Procurement Standards", which was partially revised from the Green Procurement Guidelines, was newly incorporated in the CSR Procurement Guideline as supplemental material.

 [NGK Group's Supply-Chain CSR Guidelines \(Japanese\)](#)(PDF:371KB)

 [NGK Group's Supply-Chain CSR Guidelines \(English\)](#)(PDF:162KB)

 [NGK Group's Supply-Chain CSR Guidelines \(Chinese\)](#)(PDF:273KB)

CSR Procurement Guideline supplemental material

 [NGK Group's Green Procurement Standard \(Japanese\)](#)(PDF:278KB)

 [Appendixes \(Japanese\)](#)(PDF:515KB)

 [NGK Group's Green Procurement Standard \(English\)](#)(PDF:121KB)

 [Appendixes \(English\)](#)(PDF:235KB)

 [NGK Group's Green Procurement Standard \(Chinese\)](#)(PDF:246KB)

 [Appendixes \(Chinese\)](#)(PDF:315KB)

Advancing CSR Procurement Activities from the Diffusion (Understanding) to Factual Investigation Stage to the Compliance (Agreement) to Expansion Stage

In fiscal 2013, to advance CSR procurement activities from the diffusion (understanding) to factual investigation stage to the compliance (agreement) to expansion stage, we added a request for sign-off on an agreement requiring observation of new guidelines for suppliers as part of the CSR Procurement Guideline revisions. As a result of this request, 95% * of NGK and domestic Group company suppliers and 80% * of overseas Group company suppliers signed the agreement.

In fiscal 2014, we will aim to further expand CSR procurement by asking all new suppliers to sign this agreement.

Note: Purchase amount conversion

CSR Procurement Guidelines Diffusion/Expansion Roadmap



The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

NGK's Core Policy on the Environment

Recognizing that protecting the environment is a vital issue that all of humanity must face, the NGK Group formulated its Core Policy on the Environment in April 1996 in order to bring its corporate activities into harmony with the environment. On the basis of this policy, we work to reduce the environmental impact of business activities, and actively strive to help protect the environment by developing products and technologies to that end.

Environmental Philosophy

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

Environmental Action Guidelines

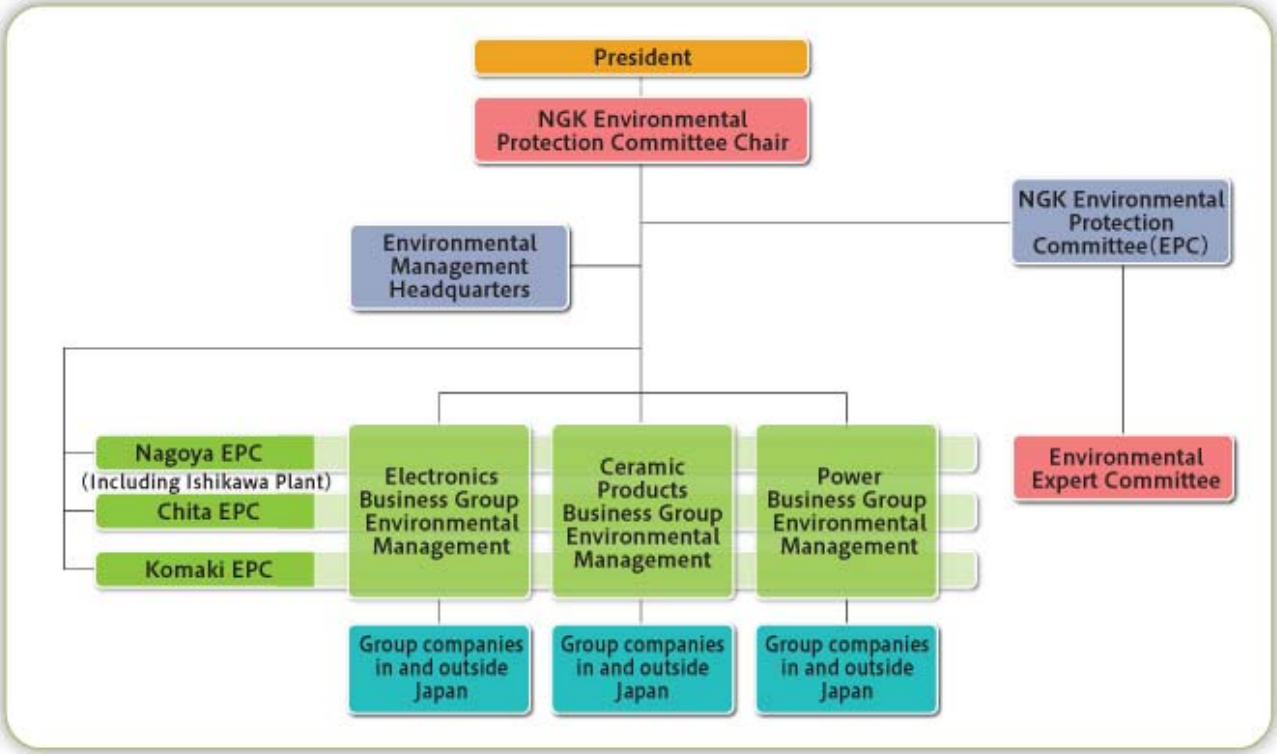
1. Strive toward the development, design, and manufacture of products that are environmentally friendly, and that have a low impact on the environment.
2. Work toward decreasing the environmental impact of our business activities.
3. Enhance environmental management systems from a global viewpoint, and implement continuous reforms in order to reduce the impact on the environment.
4. Strictly adhere to laws, regulations, and other requirements pertaining to the environment. Furthermore, establish voluntary standards, and work toward increased environmental conservation.
5. Disclose environmental information to outside the Company, and continue discussions with all interested parties. Actively develop community relations activities. Furthermore, carry out training and publicity activities in order to increase employee awareness of environmental issues.

Consolidated Environmental Management Promotion System

In addition to environmental management systems at NGK's Nagoya, Chita and Komaki sites, we promote consolidated environmental management through a consolidated management system that includes domestic and overseas Group company business divisions as activity leaders.

One feature of this business division-based environmental management system is that it enables the Groupwide promotion of environmental management initiatives regarding issues such as curbing CO2 and by-product emissions and strengthening chemical substance management. Going forward, NGK plans further enhancements.

Promotion structure



History of NGK's Environmental Activities

April 1972	Environmental Protection Committee and Environmental Preservation Office (currently, Environmental & Quality Management Dept.) established
June 1992	Waste Countermeasures Commission established
March 1993	NGK's Voluntary Plan for Environmental Conservation established
December 1994	Chlorofluorocarbons (CFCs) and 1,1,1-trichloroethane abolished
February 1995	Internal environmental audit conducted
April 1996	NGK's Core Policy on the Environment established
December 1996	CO ₂ Countermeasures Commission established
March 1998	NGK's three production bases (Nagoya, Chita and Komaki) simultaneously received ISO 14001 certification
March 1999	Environmental Report published
April 1999	Environmental accounting introduced
October 1999	Green Purchasing Commission established
November 1999	Environmental surveys of domestic group companies started
February 2000	Environmental Partnership Organizing Club (EPOC) established and active participation therein begun
October 2000	Chemical Substances Safety Committee established; Chemical Substances Management System introduced
March 2001	First Five-year Environmental Action Plan established
April 2001	Compilation of environmental performance data for domestic Group companies started
October 2001	Operating of Recycling Yard begun
January 2002	Compilation of environmental performance data for overseas Group companies started
April 2002	New "Green Management" three-year management plan instituted
April 2003	Moves made toward a full business group environmental management system; "Waste Countermeasures Commission" renamed "Recycling Promotion Commission."
March 2004	Three-year and long-term plans for reduction of CO ₂ emissions instituted
March 2005	Company-wide medium-term plan for the reduction in by-products established
April 2005	Environmental Action Guidelines revised; Green Procurement Guidelines revised
October 2005	Third-party review of environmental performance begun
April 2006	Second Five-year Environmental Action Plan established
September 2006	Initiate an environmental audit of overseas group companies
May 2007	Introduction of a consolidated goal for CO ₂ and by-products for domestic Group companies
April 2008	Establishment of the Environmental Management Department
January 2009	Introduction of goals to reduce CO ₂ , by-products, and chemical substances for overseas Group companies
January 2010	Expanded scope of goals to reduce CO ₂ , by-products, and chemical substances for overseas Group companies
April 2011	Formulation of the third 5-year Environmental Action Plan
March 2012	Three NGK sites (Nagoya, Chita and Komaki) received integrated ISO 14001 certification
March 2013	The Ishikawa site received ISO 14001 certification (joint certification with three NGK sites)
April 2013	NGK established the Environmental Expert Committee as the authority handling matters related to CO ₂ , discarded materials and other important environmental management items (created through the combination of the former CO ₂ Countermeasures and Recycling subcommittees)

<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

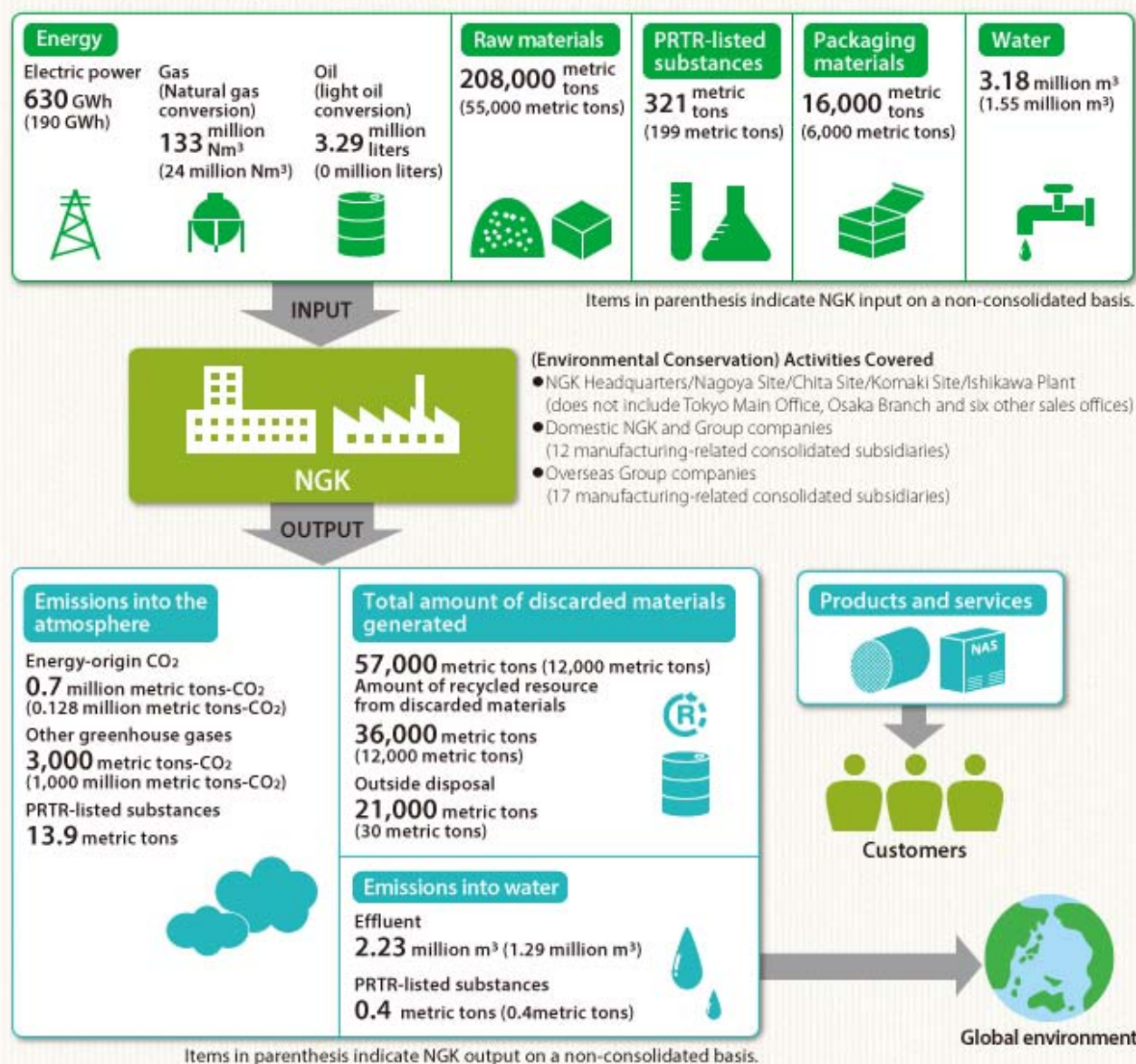
Overall Perspective of Environmental Impact

The diagram below shows inputs and outputs in business activities conducted by NGK. It shows inputs of raw material and energy and outputs in the form of manufactured products and services, as well as substances that are discharged into the atmosphere and into water.

In line with increased production volume, the NGK Group output of substances impacting the environment (CO₂ and other emissions) is on the rise. However, efforts to introduce the latest manufacturing processes and improve the management of facilities have resulted in an output rate of increase that is lower than the production volume and sales rates of increase.

▶ NGK Input/Output

NGK Input/Output



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

Notes: "discarded materials" indicates total amount of industrial waste and valuables.

♻️ indicates external recycling.

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Fiscal 2012 Initiatives Within the Third Five-Year Environmental Action Plan (2011-2015)

The NGK Group promotes environmental initiatives based on the formulation of Five-Year Environmental Action Plans. The Third Five-Year Environmental Action Plan, which was launched in fiscal 2011, aims to reduce environmental impacts on a global scale resulting from the expansion of overseas manufacturing sites, promoting these activities by establishing reduction targets for CO₂ emissions and discarded materials overseas.

Fiscal 2013 targets and results, as well as Five-Year Plan targets, are stated below.

Fiscal 2013 CO₂ and other emissions reduction activities were successfully conducted according to plans in Japan and overseas. However, for the reasons to mention later, initial targets for domestic discarded materials basic unit per net sales were not achieved. In terms of the promotion of resource recycling, domestic recycling rate targets were achieved ahead of 2015 objectives. Regarding the effective use of water resources, having established usage standards, we completed verification of usage status in all Group companies. We are also proceeding as planned on other items, including the improved management of chemical substance usage and the promotion of environmental contributions through products.

Category	Item	Management item	FY2013 environmental performance			Five-Year Plan Objectives (Fiscal 2015)
			Targets * 3	Achievements	Evaluation * 1	
Global warming prevention	Reduction of CO2 from production activities	Domestic CO2 emissions	181,000 metric tons or less	181,000 metric tons	○	10% reduction compared to fiscal 1990 (Less than 190,000 metric tons)
		Domestic basic unit per net sales	Reduce 8% compared to previous fiscal year	Reduce 9% compared to previous fiscal year	○	20% reduction from fiscal 2010
		Overseas basic unit per net sales	Reduce 5% compared to previous fiscal year	Reduce 22% compared to previous fiscal year	○	5% reduction from fiscal 2010
	Reduction of CO2 from logistics	NGK basic unit per transport volume * 2	Reduce 1% compared to previous fiscal year	Reduce 6% compared to previous fiscal year	○	1% reduction each year
Effective use of resources	Reduction of discarded materials	Domestic basic unit per net sales	Reduce 15% compared to previous fiscal year	Reduce 6% compared to previous fiscal year	×	10% reduction from fiscal 2010
		Overseas basic unit per net sales	Reduce 5% compared to previous fiscal year	Reduce 22% compared to previous fiscal year	○	5% reduction from fiscal 2010
	Promotion of resource recycling	Domestic recycling rate	Improvement of Domestic Group company recycling rate	Domestic recycling rate 99.2%	○	99% or more
		Overseas recycling rate	Investigate situation at Group companies with low recycling rates	Identified issues at Group companies with low recycling rates	○	Set and manage recycling rates established with consideration for the conditions in each country
	Effective use of water resources	Progress rate of plan	Investigate water resource usage status at Group companies in Japan and overseas	Ascertained water resource usage status at all Group companies in Japan and overseas	○	Create standards for efficient usage based on water resource usage status survey
Ensuring chemical substances management	Improvement in management level for chemical substances	Progress rate of plan	Establish appropriate management of upgraded management systems	Confirmed appropriate management status with onsite audits, etc.	○	Upgrade a chemical substance management system
Provision of eco products	Promotion of environmental contribution through products	Progress rate of plan	Expand products for evaluation	Expanded evaluations to seven core products	○	Formulate quantitative standards for degree of environmental contribution from products
	Promotion of green procurement		(Completed Green Supplier certifications in fiscal 2012)		○	Complete green supplier certification
Promotion of environmental communication	Robust environmental contribution activities	Progress rate of plan	Promote Environmental Partnership Organizing Club (EPOC) event Promoted activities in conjunction with regional communities	Conducted corporate seminars and next-generation environmental education Promoted activities in conjunction with regional communities	○	Continue and expand activities related to regional communities
	Improvement in environmental awareness		Conduct employee environmental Promote participation in environmental events	Conducted position-based training, professional training and environmental lectures Fully implemented the Eco Point system, promoted eco-proposals and participation in green curtain and other activities	○	Continue and expand environmental education, information disclosure

Note: Figures noted in the Third Five-Year Environmental Action Plan are targets established each fiscal year.

* 1 Self-evaluation standards for achievement level: ○ Target achieved △ 80% or more of target achieved × Less than 80% of target achieved

* 2 NGK basic unit per transport volume expresses in metric ton-kilometers the amount of crude oil equivalent fuel used.

* 3 Revised sales calculation method. Accordingly, basic unit per net sales targets compared to the previous fiscal year were also revised.

(Environmental Conservation) Activities Covered

- NGK Headquarters/Nagoya Site/Chita Site/Komaki Site/Ishikawa Plant (does not include Tokyo Main Office, Osaka Branch and six other sales offices)
- Domestic NGK and Group companies (12 manufacturing-related consolidated subsidiaries)
- Overseas Group companies (17 manufacturing-related consolidated subsidiaries)

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Environmental Management System Initiatives

The NGK Group promotes the acquisition of ISO 14001 certification or certification that conforms with ISO 14001 in order to continuously and systematically develop environmental conservation activities in accordance with its Core Policy on the Environment. In addition to NGK Insulators' three plants and the Ishikawa Plant, all 12 domestic companies and 17 overseas Group companies have obtained certification. Going forward, we will continue to make effective use of environmental management systems to enhance environmental management.

Environmental Audits

Again in fiscal 2013, NGK conducted internal environmental system audits and third party surveillance reviews at the Nagoya, Chita, and Komaki sites, as well as the Ishikawa Plant. No significant findings were made.

NGK also conducts these same internal audits and external reviews of the environmental management systems at all Group companies.

Environmental Risk Management

In accordance with the Core Policy on the Environment, in addition to working to prevent environmental pollution including air and water pollution, NGK Insulators periodically revises its environmental management system and strives to prevent accidents. The company is also conducting emergency response training and making every effort to prepare for the unlikely event of an accident.

■Regulatory Compliance

In accordance with the Core Policy on the Environment, in addition to observing relevant regulations and agreements with control authorities, NGK Insulators has concluded pollution control agreements with the municipalities where its plants are located and is striving to prevent environmental pollution by voluntarily adhering to standards that are stricter than required by regulations. As a result, there were no legal violations in fiscal 2013.

■Emergency Response Training/Patrols

NGK conducts training and patrols in accordance with annual planning based on emergency scenarios with the aim of minimizing damage.

In fiscal 2013, we conducted training involving the emergency shut-off of firing kiln exhaust gas treatment equipment, preparation for chemical substance leaks and emergency countermeasures in response to photochemical smog. We also conducted patrols aimed at preventing trouble at wastewater treatment facilities during times of heavy rain.

Education and Development

In order to protect the environment, it is crucial that each employee deepen their understanding of environmental issues and take conscious action toward its preservation. In line with the Core Policy on the Environment, which includes education and publicity activities to improve employees' environmental awareness in its Action Guidelines, NGK Insulators conducts various ongoing environmental education and development activities.

■Environmental Education

To facilitate an understanding of the aims and content of NGK's environmental policies, we conduct position-based training related to environmental management.

We also conduct specialized environmental training targeting personnel in charge of environmental management. In fiscal 2013, we invited an outside lecturer to conduct an environmental seminar where employees learned the importance of risk management through explanations including case studies involving infractions and an overview of rules related to waste treatment.

■Promoting the Acquisition of Qualifications

To continue conducting environmental activities that are in compliance with laws and regulations, we make an effort to improve the skills and education of qualified persons necessary for operations at each plant, including pollution control and energy managers, as required by law.

<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

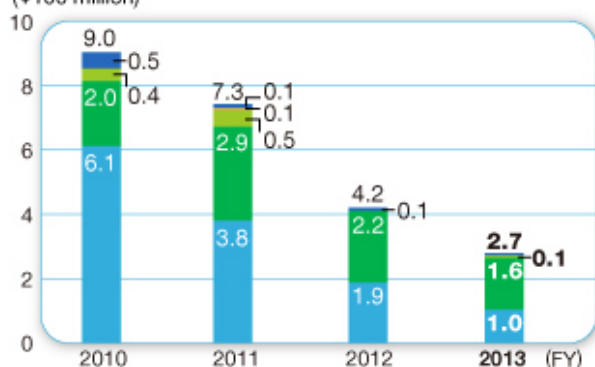
Environmental Accounting

As an important index of environmental management, NGK Insulators has begun conducting environmental accounting and announcing the results. In addition to announcing the costs of environmental conservation (capital investment, expenses), the economic benefits of environmental accounting, and the cost effectiveness of environmental accounting since FY2007, information on the environmental efficiency of CO₂ and discarded materials has been added.

Environmental Conservation Cost (NGK and Domestic Group Companies)

Capital Investment

(¥100 million)



■ Pollution prevention ■ Global environment
 ■ Resource recycling ■ Research & development
 ■ Other (Upstream/downstream, Administration, Social activity, Environmental remediation)

Expenditures

(¥100 million)



■ Pollution prevention ■ Global environment
 ■ Resource recycling ■ Upstream/downstream
 ■ Administration ■ Research & development
 ■ Social activity ■ Environmental remediation

* The method of calculating resource circulation costs was revised.

Economic Benefits (NGK and Domestic Group Companies)

(¥100 million)



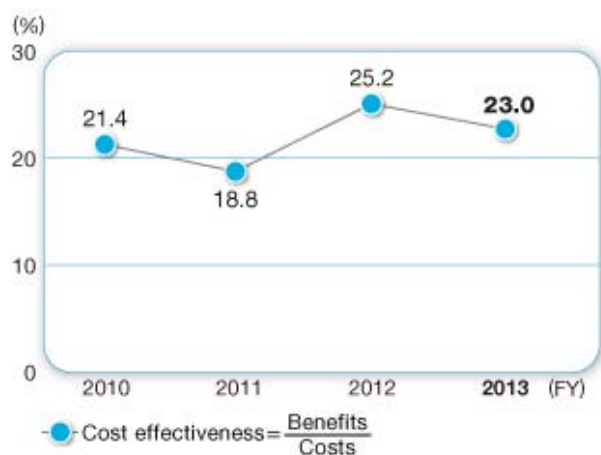
■ Energy savings ■ Resource conservation (water)
 ■ Resource conservation (raw materials)
 ■ Resource conservation (containers)
 ■ By-products (disposal decrease)
 ■ By-products (gain on sale)

The numerical values in these graphs have been rounded up.

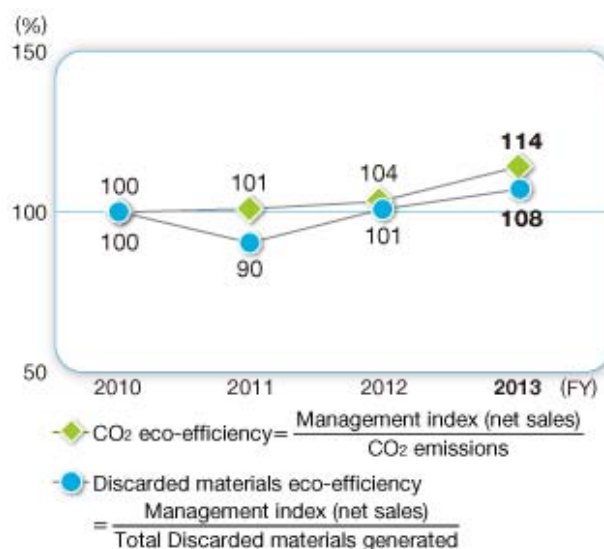
* Unit costs for energy, water and discarded materials disposal use baseline figures from 2001.

* Cost increases have not been offset.

▶ **Cost-Effectiveness (NGK and Domestic Group Companies)**



▶ **Environmental Efficiency (NGK and Domestic Group Companies)**



* Displayed as an index with fiscal 2010 as 100.

* Revised sales calculation method. Accordingly, environmental efficiency figures were also revised.

■ **Aggregate Results**

Environmental conservation costs on a domestic consolidated basis in FY2013 came to ¥270 million in capital investment (down 36% from the previous fiscal year) and ¥2.47 billion in expenses (down 8% from the previous fiscal year). The direct economic benefits of environmental conservation measures on a domestic consolidated basis were ¥570 million (down 15% from the previous fiscal year), while cost effectiveness was 23.0%, down 2.2 points from FY2012.

At the same time, CO₂ environmental efficiency on a domestic consolidated basis improved 10%, while discarded material environmental efficiency improved 8% compared to the previous fiscal year.

<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Prevention of Global Warming

From fiscal 2011, we established reduction targets for CO₂ emissions, one cause of global warming, in new overseas manufacturing activities. Overseas Group companies and all NGK Group companies promote initiatives to control and reduce CO₂ emissions.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Curb CO₂ emissions. Domestic: Emissions volume of less than 181,000 metric tons Basic unit per net sales 8% reduction from previous fiscal year * 1 Overseas: Basic unit per net sales 5% reduction from previous fiscal year * 1	Curb CO₂ emissions. Domestic: Emissions volume of less than 181,000 metric tons Basic unit per net sales 9% reduction from previous fiscal year Overseas: Basic unit per net sales 22% reduction from previous fiscal year 1 Domestic and Overseas CO₂ Reduction Plans Progressing on Track	○	Curb CO₂ emissions. Domestic: Emissions volume of less than 183,000 metric tons Basic unit per net sales 13% reduction from previous fiscal year Overseas: Basic unit per net sales 4% reduction from previous fiscal year

* 1 Revised method tallying sales and corrected objectives from last fiscal year accordingly.

▼ Initiatives Other Than Above

a [Introducing Green Power Since 2002](#)

1 Domestic and Overseas CO₂ Reduction Plans Progressing on Track

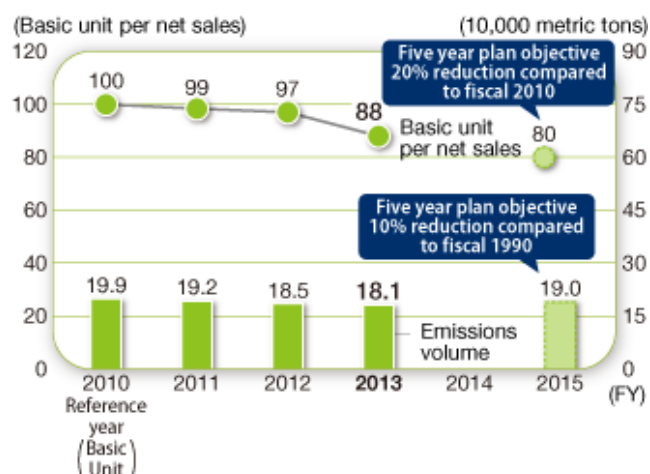
The NGK Group is engaged in curbing global CO₂ emissions through manufacturing process improvements.

In fiscal 2013, domestic CO₂ emissions reductions (amounting to approximately 7,000 tons) surpassed objectives set at the beginning of the year (approximately 6,000 tons). As a result, we achieved the fiscal 2013 target for CO₂ emissions * from manufacturing activities (emissions of 181,000 tons or less). We also achieved the target set at the beginning of the year aiming for an 8% reduction in the basic unit per net sales compared to the previous fiscal year. We achieved a 12% reduction compared to fiscal 2010 levels, demonstrating solid progress toward the Five-Year Plan objective of a 20% reduction compared to fiscal 2010.

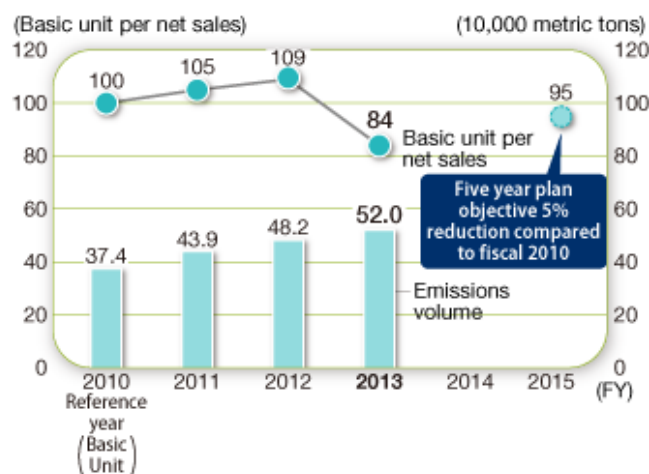
At the same time, in terms of fiscal 2013 CO₂ emissions reductions overseas, we greatly surpassed the target established at the beginning of the year (approximately 13,000 tons), achieving reductions amounting to 25,000 tons. As a result, we significantly exceeded the 5% reduction target for basic unit per net sales CO₂ emissions, achieving a 22% reduction in CO₂ emissions. Having already achieved a reduction of 16% compared to fiscal 2010, we were able to achieve the Five-Year Plan objective (a reduction of 5% compared to fiscal 2010) ahead of schedule.

* CO₂ conversion factors (kg-CO₂/unit) used in calculating CO₂ emissions are as follows: Units are indicated in parentheses. Purchased electric power (kWh): 0.42 Fuel oil (L): 2.677 Diesel fuel (L): 2.64 Kerosene (L): 2.49 City gas (Nm³): 2.347 LPG (kg): 3.007 LNG (Kg): 2.70 Gasoline (L): 2.322 Sources: Federation of Electric Power Companies of Japan (fiscal 1990 actual figures), Ministry of the Environment. Some factors have been calculated independently by NGK. However, fiscal 2012 energy-origin CO₂ emission volume for NGK on a non-consolidated basis is 146,000 metric tons when using the CO₂ conversion factor provided by the Cabinet Orders of the Law Concerning the Promotion of Measures to Cope with Global Warming (revised in December 2013).

▶ **CO2 Emissions/Basic Unit Per Net Sales *1**
(NGK and Domestic Group Companies)



▶ **CO2 Emissions *2/Basic Unit Per Net Sales *1**
(Overseas Group Companies)



*1 Basic unit per net sales calculated as 100 in fiscal 2010.

The calculation method for sales in all fiscal years including the base year was revised.

*2 Inaccuracies in the volume of fiscal 2010 CO2 emissions were corrected.

a Introducing Green Power Since 2002

As part of our corporate activities aimed at harmony with the environment, NGK began introducing Green Power (energy sources such as wind and solar power and biomass fuels) in 2002, earlier than any other company. The Green Power Certification System contract we signed with Japan Natural Energy Company Limited calls for them to generate two million kilowatt hours of wind power for us each year.

This is equivalent to about 60% of the power consumed annually by the NGK headquarters building, a reduction of approximately 800 tons of CO2 emissions per year and the annual amount of CO2 absorbed by approximately 60,000 cedar trees.



Tohoku Natural Energy Development Co., Ltd.,
Noshiro Wind Power Station



<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Adoption of Environmentally Friendly Production Processes

Through the introduction of highly-efficient equipment and the promotion of the collection and use of exhaust heat and improved production efficiency, NGK makes efforts to reduce environmental impact resulting from production. Also, our structural innovation in manufacturing aimed at enhancing competitiveness significantly contributes to the realization of eco-processes.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Promote the development of innovative process technologies for overseas locations. (NGK Group)	Introduced highly efficient equipment into domestic manufacturing bases and developed management improvements at overseas bases 1 Controlling CO2 Emissions through Manufacturing Process Efficiency	○	Promote the development of innovative process technologies for overseas locations.
Develop NGK energy-efficiency measures for general-purpose equipment at Group companies. (NGK)	Conducted energy conservation diagnostics on general purpose equipment at Group companies in Japan and overseas 2 Other Initiatives Aimed at Reducing CO2 Emissions	○	Promote energy conservation diagnostics on general purpose equipment at Group companies in Japan and overseas

1 Controlling CO2 Emissions through Manufacturing Process Efficiency

As the NGK Group continues to expand overseas manufacturing, we are focusing efforts on manufacturing efficiency at our overseas locations in an attempt to curb the amount of CO2 and discarded materials released. We have made steady progress as a result of introducing improvements to facilities and operations conducted in Japan to our overseas manufacturing locations.

In fiscal 2013, CO2 reduction measures at overseas plants focused on improving firing process efficiency. As a result, in addition to the aforementioned effects of general-purpose equipment improvements, we achieved CO2 reductions of approximately 25,000 tons.

In fiscal 2014 we will continue to focus on firing process improvements and plan to promote further reductions in CO2, including the introduction of energy-saving general-purpose equipment, highly efficient manufacturing equipment other than kilns and improved yield rates among other initiatives.



High-efficiency continuous kiln

2 Other Initiatives Aimed at Reducing CO₂ Emissions

At NGK, we are promoting energy-saving activities focused on general purpose equipment (plant utility equipment, air conditioning lighting, etc.) as part of our effort to reduce CO₂ emissions. We promote the elimination of waste from supply sources (compressors, boilers) as well as supply destinations (manufacturing equipment), eradicating air and steam leaks and making the operation of compressors and boilers more efficient. We are also aggressively engaged in activities aimed at eliminating waste from air conditioning and replacing other lighting to LED. Since fiscal 2013, we have conducted energy-saving diagnostics on all equipment, creating energy-saving guidelines summarizing points focused on energy conservation concepts as a horizontal deployment tool for domestic Group companies and overseas production sites accounting for a significant proportion of manufacturing.

As a result, in fiscal 2013 CO₂ reductions were almost 20% higher at domestic facilities, which reduced about 2,000 tons of CO₂, while approximately 4,000 tons of CO₂ was reduced overseas.

NGK is also engaged in reducing CO₂ emitted through logistics activities. Having set a domestic logistics target of an annual 1% decrease in the basic unit per transport, we are promoting a modal shift* focused on large projects. In fiscal 2013, an increased number of projects involving the long-distance shipment of a large volume of products switched from truck to ocean liners resulted in a 6% reduction in the basic unit per transport compared to the previous fiscal year.

* Modal shift refers to using more efficient rail and ocean liners, rather than trucks for main transport routes, in order to lower environmental impact and improve logistics efficiency.



Energy-saving diagnostics and guidance

<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Promotion of Resource Recycling

To boost yield from manufacturing process improvements, NGK reuses in-process materials in an effort to curb discarded materials while focusing energy on reuse to promote resource recycling.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Curb amount of discarded materials generated. Domestic: Basic unit per net sales 15% reduction compared to the previous fiscal year * 1 Overseas: Basic unit per net sales 5% reduction compared to the previous fiscal year * 1	Curb amount of discarded materials generated. Domestic: Basic unit per net sales 6% reduction compared to the previous fiscal year Overseas: Basic unit per net sales 22% reduction compared to the previous fiscal year 1 Despite Falling Short of Targets for the Reduction of Discarded Materials in Japan, Significant Achievements Were Made Overseas	△	Curb amount of discarded materials generated. Domestic: Basic unit per net sales 23% reduction compared to the previous fiscal year Overseas: Basic unit per net sales 9% reduction compared to the previous fiscal year
Improved recycling rate Conduct detailed analysis of Group companies in Indonesia, Poland and Mexico.	Improved recycling rate Identified issues at overseas Group companies with low recycling rates 2 Promoting Recycling at all NGK Group Companies	○	Increase recycling rates within the scope appropriate for actual conditions at all overseas manufacturing bases

* 1 Revised method tallying sales and corrected objectives for last fiscal year accordingly.

1 Despite Falling Short of Targets for the Reduction of Discarded Materials in Japan, Significant Achievements Were Made Overseas

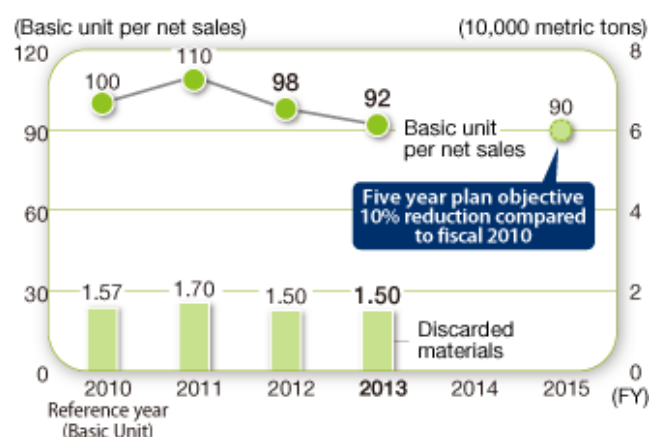
The NGK Group is engaged in curbing discarded materials globally and is focusing efforts on expanding the reuse of raw materials in domestic and overseas manufacturing processes.

In fiscal 2013, targets set at the beginning of the year for the reduction of discarded materials in Japan (approximately 400 tons) were mostly achieved. However, the effect of changes to certain aspects of the manufacturing process and capital expenditures caused an increase in the amount of discarded materials generated. This resulted in a decline in basic unit per net sales of 6% compared to the previous year, which led to our falling short of targets set at the beginning of the year (15% reduction compared to the previous year). Nevertheless, having achieved an 8% reduction compared to fiscal 2010 levels is solid progress toward the achievement of targets set out in the Five-Year Plan (a 10% reduction compared to fiscal 2010 levels).

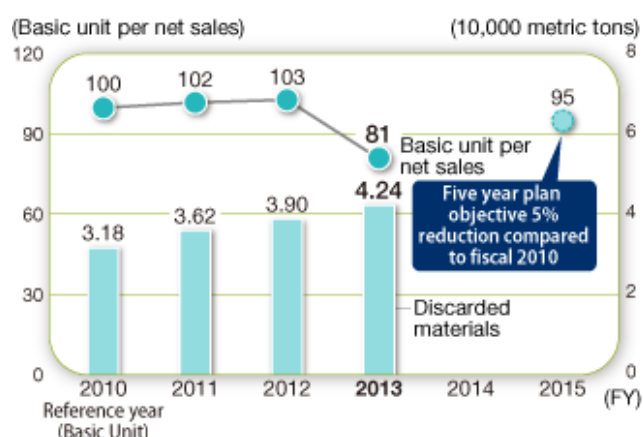
At the same time, we made significant achievements with regard to reducing discarded materials overseas, greatly surpassing targets set at the beginning of the year (a reduction of 4,000 tons). As a result, we significantly exceeded the targeted 5% reduction in discarded materials generated on a basic unit per net sales basis compared to the previous fiscal year, achieving a reduction of 22%. Moreover, as we have achieved a 19% reduction compared to fiscal 2010 levels, we have already cleared the Five-Year Plan target (of a 5% reduction compared to fiscal 2010 levels).

Going forward, we will further promote manufacturing process improvements, higher yield rates through more efficient use of resources and the reuse of raw materials within processes in an effort to reduce the amount of discarded materials generated.

▶ Amount of Discarded Materials Generated/Basic Unit Per Net Sales * 1 (NGK and Domestic Group Companies)



▶ Amount of Discarded Materials Generated/Basic Unit Per Net Sales * 1 (Overseas Group Companies)



* 1 Basic unit per net sales calculated as 100 in fiscal 2010.

The calculation method for sales in all fiscal years including the base year was revised.

2 Promoting Recycling at all NGK Group Companies

Through systematic sorting, separating and the quest for new recycling methods, NGK focuses efforts on reducing discarded materials and promoting resource recycling. As a result, we maintain a high recycling rate of 99.7% *.

In fiscal 2013, we focused on improvements at domestic Group companies and were able to increase the recycling rate from 96.0% in the previous fiscal year to 97.3%.

As a result, NGK and its domestic Group companies achieved a combined recycling rate of 99.2%, clearing 99% of Five-Year Plan targets ahead of time.

Regarding overseas Group companies, where situations differ by country and region, our aim is to establish recycling rate targets and institute management under the Five-Year Plan that considers the conditions in each country. In fiscal 2013, we focused efforts on issues connected to low recycling rates at overseas Group company sites, enabling us to identify special circumstances preventing the promotion of recycling. This fiscal year, in addition to consideration of areas in need of improvement, including those with special circumstances, we will determine the appropriate range of recycling rates given the circumstances at all overseas Group companies.

Note: Due to internal standards, non-recyclable discarded materials are excluded from these calculations.

<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Strengthening of Global Environmental Management

The NGK Group horizontally deploys domestic environmental impact reduction initiatives in overseas Group companies while creating mechanisms to strictly comply with amendments to environmental laws and regulations to propel our global environmental management to the next level.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Began creation of a mechanism for sharing information in China, where laws and regulations change frequently. (NGK Group)	Created a mechanism for ascertaining the status of responses to laws and regulations at overseas Group companies 1 Information on Revised Laws and Regulations at Overseas Group Companies and Enhanced Mechanisms for Ascertaining Responses and Management Status	○	Identify potential environmental risks at overseas Group companies

▼ Initiatives Other Than Above

a [Strengthening Environmental Management Linked to Business Planning](#)

1 Information on Revised Laws and Regulations at Overseas Group Companies and Enhanced Mechanisms for Ascertaining Responses and Management Status

NGK shares information on revisions to domestic environmental laws and regulations with Group companies in Japan, having created a mechanism in 2011 that functions to ascertain the status of responses to these revisions. Through the establishment of this mechanism NGK is able to determine the status of responses to revised laws and regulations at domestic Group companies.

In fiscal 2013, Group companies including those located overseas completed acquisition of environmental ISO certification, establishing an environmental management framework in accordance with the NGK Group overall environmental management system. Also in fiscal 2013, we enhanced mechanisms enabling the head office to regularly glean the status of information on revisions to important laws and regulations in countries where overseas Group companies have been established, the status of each company's response to laws and regulations, and their respective management status.

In addition to the aforementioned response to laws and regulations, we have also created and operate a system for the head offices to gather information regarding activities aimed at lessening environmental impacts at domestic and overseas Group companies.

a Strengthening Environmental Management Linked to Business Planning

The NGK Group practices environmental management linked to business planning. We aim for environmental management responsive to constantly changing business planning, such as highly advanced process technology innovations leading to successful product and location strategies and cost competitiveness based on rapidly changing market needs on a global scale.

Specifically, initiatives aimed at reducing impacts on the environment in accordance with business plans involve conducting forecast estimates of achievement evaluations by business group, product line and manufacturing site in Japan and overseas every six months to reexamine which initiatives we must to pursue next.

As part of these initiatives, in fiscal 2013, we established the Environmental Expert Committee as a subcommittee under the NGK Environmental Protection Committee, a company-wide decision-making body. The Environmental Expert Committee facilitates discussions among managers from planning and production divisions to formulate and promote actual business planning in each business division, strengthening the company-wide environmental management system. Going forward, we will continue to strengthen management integration with the aim of promoting sustainable and expansive environmental management.

<As a Member of Society> Preservation of Global Environment

The NGK Group engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technology that reduces environmental impact.

Environmental Communication

While working to reduce environmental impacts and conducting environmental conservation activities associated with its business activities, NGK engages in the improvement of environmental awareness through the distribution of information, as well as the introduction of, and support for, environmental events targeting various stakeholders.

Conducting Guest Lectures on the Subject of Water

Since 2005, NGK has participated in the planning of next-generation educational businesses with the Environmental Partnership Organizing Club (EPOC) by conducting guest lectures at elementary schools. We teach students about the importance of water through lectures and quizzes using an original NGK textbook. In fiscal 2013, we conducted guest lectures five times for approximately 400 students.



NGK Eco Point System Deployed Company-wide

We are deploying the NGK Eco Point System company-wide.
For details, please see "[Support for Volunteer Activities by Employees.](#)"

<As a Member of Society>

Coordination with Local Communities and Promotion of Contribution to the Society

We will actively commit ourselves to contributing to society, satisfying the needs of local communities with our interest in social tasks required by the countries and local communities, centered on people and education, environmental preservation, and community involvement with the objective of becoming a corporate citizen that can be trusted by local communities.

Provision of Scholarships and Living Assistance to Foreign Students

With the aim of contributing to human resource development that contributes to the development of an international society, NGK continues support activities focusing on housing and scholarships for foreign students. We are also engaged in various events that create an opportunity for grassroots international relations among supported students, the regional community and employees.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Maintain support to foreign students. (NGK)	Provided housing for 39 students from five countries and scholarships for 20 students from nine countries. 1 Continued Support for Housing and Scholarships	○	Maintain support to foreign students.
Continue to hold language classes and cross-cultural exchange meetings led by foreign students conducted within and outside the company. (NGK)	Held 40 language classes and 13 cross-cultural exchange meetings. 2 Supporting Foreign Students and Communities, Exchanges with Employees	○	Continue to hold language classes and cross-cultural exchange meetings led by foreign students conducted within and outside the company.
Continue to investigate responses of other organizations. Consider incorporating findings in future measures. (NGK)	Distributed NGK International Friendship Club and New Year's greeting cards after support concluded 3 Efforts to Maintain Trusting Relationships Even After Support Ends	○	Distribute information after support ends.

1 Continued Support for Housing and Scholarships

NGK continued its support activities for foreign students with the aim of contributing to human resource cultivation that fosters the development of an international community. In fiscal 2013, we provided housing for 39 students from five countries and scholarships to 20 students from nine countries.

2 Supporting Foreign Students and Communities, Exchanges with Employees

Since fiscal 2000, we have conducted language classes taught by foreign students and held cross-cultural exchange meetings where foreign students introduce their native countries with the aim of facilitating grassroots international relations among supported students and regional communities.

In fiscal 2013, Chinese and Korean language classes were held 20 times, while cross-cultural exchange meetings introducing foreign students from nine countries including India, Uzbekistan and Morocco were held 10 times. As of fiscal 2013, approximately 740 members of regional communities have participated in these activities.

In addition, cultural exchange meetings with NGK employees were held three times at three different sites where foreign students from Uzbekistan and Morocco mingled with 65 NGK employees.



NGK employees mingle with foreign students from Uzbekistan and Morocco at a cultural exchange meeting.

3 Efforts to Maintain Trusting Relationships Even After Support Ends

Not only does NGK want to build relationships with supported foreign students, we want to maintain them even after support ends. Accordingly, each year, we send out a New Year's greeting that includes a company status report to former participants and supported students. NGK also stays in contact with foreign students after support ends through the distribution of NGK International Friendship Club cards.

We will continue our efforts to distribute information intended to heighten the relationship of trust between NGK and foreign students even after participation ends.



New Year's greeting card sent to foreign students.

<As a Member of Society>

Coordination with Local Communities and Promotion of Contribution to the Society

We will actively commit ourselves to contributing to society, satisfying the needs of local communities with our interest in social tasks required by the countries and local communities, centered on people and education, environmental preservation, and community involvement with the objective of becoming a corporate citizen that can be trusted by local communities.

Cooperation with Local Communities, Labor Unions, and NPOs in Social Contribution Activities

As a member of the regional communities where we operate, NGK engages in various social contribution activities in accordance with regional needs. Also, in an attempt to share Group company activity information, we promote the creation of opportunities for mutual understanding and new activities.

Topics 2013

- ▶ [Overseas Group Company Social Contribution Activities](#)



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved ▲ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Continue making efforts to understand Group company activities with initiatives for information transmission and sharing to link activities of each company. (NGK Group)	Shared the status of activities at each company. 1 dummy 2 Employee Volunteers Active in Each Region	○	Ascertain activity status and maintain distribution of information connected to the upcoming activities at each Group company

▼ Initiatives Other Than Above

- a [Donating Emergency Food Supplies to Food Banks and Other Organizations](#)

1

Overseas Group Company Social Contribution Activities



NGK CERAMICS POLSKA SP.Z O.O.

Charity Promotes Purchase of Children's Paintings



Aleksandra Olbrys
HR Specialist

Believing in the Unlimited Potential of Children

We created a charity to sell pictures painted by children from an orphanage. All proceeds are donated to the orphanage. Since 2009, the charity has held an annual event drawing approximately 3,000 employees and their families.

Once again in 2013, the children created fantastic works brimming with individuality and a sense of the unlimited possibilities of children, which were auctioned off by employees. As always, every painting was sold.



NGK METALS CORPORATION

Giving Christmas Presents to Disadvantaged Children



Lynne Woodside
Manager,
Environment and Safety

Doing it for the Children's Smiles

Each year as Christmas approaches, our employees take the opportunity to give back to the local community.

In December 2013, employees collected donations of coats, clothing, sporting goods, toys, books and other items that were donated to children as Christmas presents.





NGK EUROPE GMBH

Participating in Charity Runs



Nils Unger
Key Account Manager

Coming Together through Social Contribution Activities

In June 2013, 47 employees participated in the JP Morgan Corporate Challenge jogging race held in Frankfurt. This charity event collects donations from participating corporations that are given to an organization supporting people with disabilities.

All employees who participated experienced a sense of fulfillment from contributing to society, as well as a sense of accomplishment after the race upon completing the 5.6 km course.



2 Employee Volunteers Active in Each Region

In addition to the NGK Group conducting social contribution activities as a company, individual employees are increasingly involved in working with local citizens on various projects such as environmental conservation and regional development.

Volunteer Activities Utilizing Vending Machines

—NGK YU-SERVICE CO., LTD.; NGK FINE MOLDS, LTD.;
NGK METEX CORPORATION

The NGK Group participates in TABLE FOR TWO (TFT) volunteer activities utilizing vending machines. A portion of vending machine sales is donated as school lunches for children in developing countries through the TFT head office.

In July 2013, NGK YU-SERVICE installed three TFT vending machines in NGK Headquarters. Next, TFT vending machines were installed at NGK FINE MOLDS. They were also installed at NGK METEX in September.



Cooperating with Maintenance of Asian Skunk Cabbage Colonies

—NGK OKHOTSK

NGK OKHOTSK (Abashiri City, Hokkaido Prefecture) helps clean up and maintain Asian skunk cabbage colonies through participation in activities conducted by the Lake Abashiri Mizu to Midori no Kai. 2013 marked the fourth year of our involvement in these activities, with 10 volunteers maintaining the water's edge, reinforcing the gutter retaining walls and collecting rubbish to maintain the scenic beauty of the Asian skunk cabbage and conserve the wetland area environment.



Jingu Higashi Park Cleanup Activities

—NGK Labor Union

Each year, the NGK Labor Union conducts cleanup activities at Jingu Higashi Park (Atsuta-ku, Nagoya City), located between NGK headquarters and the nearest train station. These activities have been conducted for the past 22 years with the cooperation of NGK Yu-Service and NGK Building Services.

In 2013, cleanup activities were conducted four times between June and September, with 909 employees taking part.



Participation in Negami Coastline Volunteer Cleanup Activities

—NGK

In July 2013, 24 employee volunteers from NGK's Ishikawa Plant (Nomi City, Ishikawa Prefecture) participated in cleanup activities along the Negami coastline. These activities are part of the "Clean Beach Ishikawa" efforts, which began 19 years ago and are conducted throughout Ishikawa Prefecture, as well as Nomi City's "Creating a Better Environment Day," conducted annually before the start of sea-bathing season.

From early morning, just before the rain that had been falling since midnight stopped, approximately 1,300 volunteers from local neighborhood associations and participating companies collected rubbish along 6 km of coastline. 17 two-ton truck loads of rubbish that had drifted ashore, including driftwood, empty cans and plastic containers with foreign languages written on them were collected.



Autumn Traffic Safety Curbside Guidance Cooperation

—ENERGY SUPPORT CORPORATION

In September 2013, employees from the ENERGY SUPPORT CORPORATION (Inuyama City, Aichi Prefecture), along with other regional corporations, participated in autumn traffic safety curbside guidance activities led by the Inuyama Police Department.

Two employees participated, handing out fliers on seatbelt safety to drivers stopped at red lights.



Komaki Mountain Cleanup Activities

—NGK CERAMIC DEVICE CO., LTD.

For the past seven years, NGK CERAMIC DEVICE CO., LTD. (Komaki City, Aichi Prefecture) has participated in cleanup activities conducted at Komaki mountain, the symbol of Komaki City.

In April 2013, a total of 25 employees and their families participated in rubbish collection. This activity involves walking long distances while collecting rubbish and is popular for keeping fit and as a family activity. To maintain this spot as place where Komaki citizens can relax, we plan on aggressively recruiting more participants for future cleanup activities.



Introducing Children to Science Experiments

—NGK

In August 2013, NGK sponsored Christmas Lecture 2013, a British science experiment course held at Nagoya University. We also set up a booth for experiments inside the venue run by 16 employee volunteers who conducted 12 different experiments taken from the NGK Science website.



Continuing to Convey the Fun of Science with 200 Postings

The NGK Science website was created by NGK to introduce simple science experiments that can be conducted at home. As a company engaged in manufacturing with the aim of conveying the fun of science to children who will lead the next-generation, we began placing these experiments as corporate advertisements in the science magazine "Newton" in 1997. We also post new experiments on our corporate website each month.

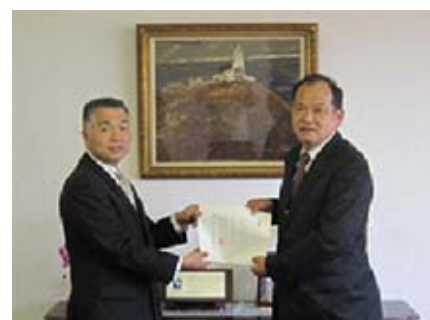
The NGK Science website <http://site.ngk.co.jp/> 



a Donating Emergency Food Supplies to Food Banks and Other Organizations

NGK maintains emergency food and water supplies for security personnel and staff who are unable to return home in the event of a natural disaster.

In fiscal 2013, for the first time, we replaced mineral water with expiration dates of six-months or less, donating 1,000 bottles to the Komaki City Council of Social Welfare.



<As a Member of Society>

Coordination with Local Communities and Promotion of Contribution to the Society

We will actively commit ourselves to contributing to society, satisfying the needs of local communities with our interest in social tasks required by the countries and local communities, centered on people and education, environmental preservation, and community involvement with the objective of becoming a corporate citizen that can be trusted by local communities.

Support for Volunteer Activities by Employees

NGK makes an effort to provide information and opportunities enabling employees to easily experience volunteer activities.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved × Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Create environment enabling employees to easily participate in volunteer activities. (NGK)	<ul style="list-style-type: none"> Donated approximately 44,000 school meals to Africa through Table for Two (TFT). Conducted forest cultivation volunteer activities <ol style="list-style-type: none"> Donating Nearly 40,000 School Meals to Africa Every Year Providing Employees with Information on Volunteering 	<div>○</div> <div>○</div>	Continued to create an environment enabling employees to easily take part in volunteer activities

▼ Initiatives Other Than Above

a [Company-wide Deployment of the NGK Eco Point System](#)

1 Donating Nearly 40,000 School Meals to Africa Every Year

Since September 2010, NGK has participated in the TABLE FOR TWO (TFT) program, just one of the many opportunities we provide enabling employees to experience casual volunteer activities. For every meal purchased from the healthy TFT menu in our employee cafeterias, ¥20 is donated towards one school meal for children in Africa through a United Nations project. This program has been implemented at eight cafeterias in four locations including the head offices (Atsuta, Mizuho) and the Chita, Komaki and Ishikawa sites. In fiscal 2013, 3,000 more meals were purchased than the previous year for a total of approximately 44,000 meals donated at eight cafeterias. In the three and a half years since these activities were launched, NGK has donated approximately 125,000 meals (providing nearly 570 children with school meals for an entire year). In recognition of our contribution to these activities, the TFT Secretariat has awarded NGK with a Gold Supporter Certificate of Appreciation for the past three years.

Also in fiscal 2013, Group companies NGK Yu-Service, NGK Fine Molds and NGK Metex installed seven vending machines, the proceeds from which are donated to the TFT program.



For each meal purchased, the employee donates ¥10 and the company donates ¥10



Vending machines facilitate charity donations

2 Providing Employees with Information on Volunteering

To create opportunities for employees to volunteer outside work, we provide information on our intranet pertaining to volunteer activities.

In fiscal 2013, 27 employees participated in volunteer activities including tree-planting and environmental conservation initiatives conducted by the public interest incorporated foundation OISCA International and other organizations.



"OISCA Forest" company-sponsored forestation volunteer activities conducted in October 2013 (Kitashitara District, Aichi Prefecture).

a Company-wide Deployment of the NGK Eco Point System

Under the NGK Eco Point System, employees earn points for environmental behaviors conducted at work and in the home, a portion of which is converted into cash and donated to regional municipalities (environmental funds), contributing to regional communities.

This system was introduced at the Chita Site in fiscal 2012 as a trial and then expanded throughout the entire company in fiscal 2013. Approximately 85% of all employees participate in these activities.



Nagoya City, Aichi Prefecture



Komaki City, Aichi Prefecture



Handa City, Aichi Prefecture



Nomi City, Ishikawa Prefecture

Donating to environmental-related funds in regional municipalities where the head offices, the Chita and Komaki sites and the Ishikawa Plant are located.

<As a Member of Society> Communications with Stakeholders

Through various opportunities, the NGK Group makes an attempt to communicate with customers, suppliers, regional citizens and a variety of stakeholders in an effort to build and maintain a trusting relationship.

Communication with Customers and Procurement Partners

The NGK Group is engaged in expanding two-way communication with suppliers indispensable to our provision of products and services, and of course, customers we provide with products and services, to enhance fairness and transparency in procurement.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Hold earnings results presentations for major suppliers. (NGK)	Held earnings results presentations for approximately 120 major suppliers. 1 Earnings Results Presentations for Major Suppliers	○	Hold earnings results presentations for major suppliers.
Continue to operate the supplier helpline. (NGK)	Continued to operate the supplier helpline. 2 Ongoing Operation of Supplier Helpline	○	Continue to operate the supplier helpline.
Employ most appropriate suppliers and continue supplier visitation activities to step up supplier quality. (NGK)	Visited 11 new suppliers and 87 existing suppliers for a total of 98 suppliers visited 3 Conducting Supplier Visitation Activities in Japan and Overseas	○	Continue visits and assessments focused on new and major suppliers

▼ Initiatives Other Than Above

a [Promoting the Creation of a Mechanism for Responding to Customer Voices](#)

1 Earnings Results Presentations for Major Suppliers

To deepen understanding of business and CSR activities, each year NGK holds earnings results presentations for major suppliers.

In fiscal 2013, the presentation was held in June and attended by 230 people from 130 companies. In addition to thanking suppliers, we explained initiatives pertaining to procurement issues and requested strict management of information security. We also held friendship meetings where guests freely exchanged opinions with NGK directors and the heads of various business divisions.



Earnings results presentation for major suppliers
(held in June 2013)

2 Ongoing Operation of Supplier Helpline

In 2008, NGK established the supplier helpline. Receiving consultation via email, fax and telephone, we make an effort to respond with solutions quickly.

In fiscal 2014, we will continue to operate the supplier helpline and provide unerring supports for important inquiries and make an effort to build and maintain fair supplier relationships.

3 Conducting Supplier Visitation Activities in Japan and Overseas

In order to procure from the most suitable suppliers, NGK visits suppliers around the world for a fair and impartial assessment of their CSR activities, including their financial status and environmental conservation efforts, in addition to quality, cost and delivery (QCD).

In fiscal 2013, we visited 11 new suppliers and 87 existing suppliers, a total of 97 companies. We conducted QCD audits during visits to 73 of the existing suppliers and confirmed improvements at the other 14. In addition to explaining the results of audits, we provided guidance on areas receiving a low assessment and conducted fair and impartial evaluations of our procurement partners.

In fiscal 2014, we will continue to visit new and major suppliers to conduct evaluations.



a Promoting the Creation of a Mechanism for Responding to Customer Voices

As the top manufacturer of industrial ceramics, NGK develops a wide range of ceramics products mainly for other companies and makes use of ceramics technologies to develop and sell C1 home-use water purifiers.



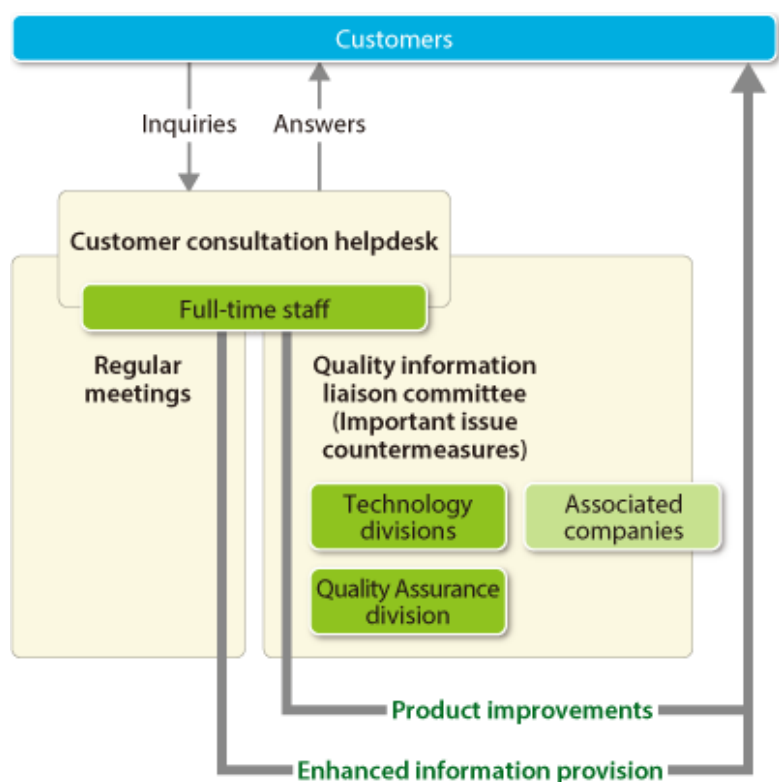
C1 Home-Use Water Purifier

We set up a dedicated C1 customer consultation

helpdesk in-house to create a mechanism for reflecting the customer's voice in our products and services.

During fiscal 2013, in department stores across Japan, we launched over the-counter sales, conducted a monitoring campaign and held taste tests at various events to convey the appeal of purified water in an attempt to communicate actively with customers.

▶ Mechanism for Responding to Customer Voices



<As a Member of Society> Communications with Stakeholders

Through various opportunities, the NGK Group makes an attempt to communicate with customers, suppliers, regional citizens and a variety of stakeholders in an effort to build and maintain a trusting relationship.

Interaction with Local Communities via Plant Tours and Open House Events

The NGK Group engages in dynamic interactions with local residents through opportunities such as plant tours and regional events, as well as through opportunities for direct dialogue, making an effort to incorporate the ideas and opinions received in Group business activities and CSR activities.

CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Conduct ongoing exchanges with regional communities through plant tours and other activities. (NGK)	Interacted with local communities through eight plant tours at four sites 1 Interacting Directly with Children and Local Residents through Support for Plant Tours	○	Continue to interact with local communities
Conduct dialog with external stakeholders. (NGK)	Exchange opinions focusing on regional administrators 2 Exchanging Opinions with Stakeholders	△	Conduct ongoing dialog with external stakeholders.

1 Interacting Directly with Children and Local Residents through Support for Plant Tours

NGK attempts to interact with regional communities through plant tours and other activities. To deepen interest and understanding in NGK and manufacturing, in fiscal 2013 we conducted eight plant tours at four sites for a total of 284 participants consisting of elementary school students and local residents.

In January 2014, 22 students from Arimatsu Junior High School in Nagoya visited a plant that manufactures ceramics products used to purify automotive exhaust. The students showed a great deal of interest in the large firing furnace and ceramics of various sizes and shapes.



22 students from Arimatsu Junior High School in Nagoya taking a plant tour.

2 Exchanging Opinions with Stakeholders

In fiscal 2013, NGK held a subcommittee meeting within the Corporate Research Seminar CSR Promotion Forum. Approximately 50 domestic corporations participated in the forum, which aimed to create networks and resolve practical operations issues through the mutual enlightenment of CSR personnel. 10 representatives from eight companies including NGK attended the subcommittee meeting. Participants exchanged opinions on CSR at B2B companies and materials manufacturers and shared recognition on the importance of continuous effort for CSR initiatives regardless of corporate performance.

Furthermore, we exchanged opinions on NGK corporate activities with local residents living nearby during plant tours once again in fiscal 2013.

In response to the request for a deeper understanding of regional industry by the Liaison Council of Ward Mayor of Handa City, in March 2014 we conducted a tour at the Chita Site and exchanged opinions with 33 ward mayors of Handa City. Participants who viewed the insulator and beryllium copper manufacturing processes noted “facility safety measures and the plant itself are maintained at a meticulous level of 5S,” proving this to be an excellent opportunity to provide a deeper understanding of our business and manufacturing processes.

Also, 16 ward mayors of Komaki City and 25 female management staff from the local Chamber of Commerce were invited to tour the Komaki plant and the Ishikawa plant respectively and opinions were exchanged at each place.



Subcommittee meeting within the Corporate Research Seminar CSR Promotion Forum, where CSR personnel exchanged opinions.



Female management staff from the Nomi City Chamber of Commerce in Ishikawa Prefecture visits the Ishikawa Plant on November 26.

<As a Member of Society> Communications with Stakeholders

Through various opportunities, the NGK Group makes an attempt to communicate with customers, suppliers, regional citizens and a variety of stakeholders in an effort to build and maintain a trusting relationship.

CSR Talk Live (Discussions on Implementing CSR with Every Employee Class)

To deepen every employee's understanding of CSR initiatives, in 2009 the NGK Group began holding CSR Talk Live, an event where employees and top management talk directly to each other held at all sites in Japan. NGK will continue to use direct dialogue to inculcate CSR.

Topics 2013

- 1 [CSR Talk Live Dialogue with Employees](#)



CSR Objectives and Achievements

★ Evaluation standards: ○ Target achieved △ 80% or more of target achieved ✕ Less than 80% of target achieved

P FY2013 Plan and Targets	D FY2013 Activities Summary	C Evaluation ★	A FY2014 Plan and Targets
Hold two-way communication events with NGK and domestic Group company employees. (NGK and domestic Group companies)	Conducted CSR Talk Live eight times, with one Group company participating for the first time 1 CSR Talk Live Dialogue with Employees	○	Continue two-way communication events with NGK and domestic Group company employees
Further enhance CSR-Web content. (NGK and domestic Group companies)	Distributed information related to CSR activities and CSR Committee proceedings on the online CSR Web. 2 Distributing the Latest CSR Activities Information on the Company Intranet	○	Enhance CSR-Web content.

1 CSR Talk Live Dialogue with Employees

To deepen employee understanding of CSR and related initiatives, NGK conducts “CSR Talk Live,” an event facilitating direct discussion with management held at all domestic sites since fiscal 2009.

Beginning at the Chita Site on September 12, this event was held eight times in fiscal 2013 at six locations, including Group company Energy Support Corporation, which participated for the first time. Approximately 360 employees attended these events. The participation of only a few dozen people at each event resulted in spirited discussions.

At each venue, senior management emphasized the importance of CSR initiatives to those in attendance, while the Environmental Management Department and CSR Office used specific examples to explain CSR Report 2013 details. Afterward, a Q&A session with employees was conducted on topics including environmental conservation, workplace safety, disaster countermeasures, business continuity planning (BCP) and welfare program activities.



Eiji Hamamoto
Executive Vice President
CSR Committee Chairman (at
time of meeting)



Hiroshi Fujito
Executive Vice President

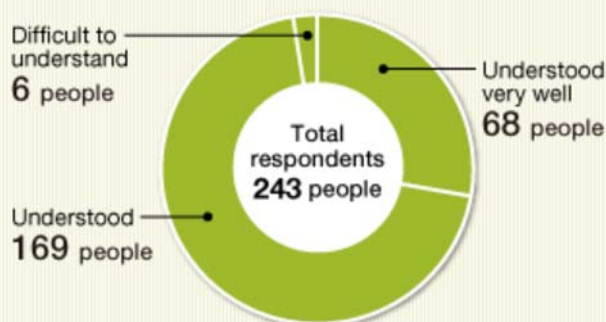
► CSR Talk Live Event Schedule and Number of Participants

Nagoya Site (Aichi Prefecture)	
September 18	51
September 19	51
September 20	51
Chita Site (Aichi Prefecture)	
October 2	47
Komaki Site (Aichi Prefecture)	
September 12	53
NGK CERAMIC DEVICE Yamanashi Plant (Yamanashi Prefecture)	
October 16	50
Ishikawa Plant (Ishikawa Prefecture)	
September 27	24
Energy Support Corporation (Aichi Prefecture)	
December 17	34

► Participation by Age Group



► CSR Talk Live Evaluation



Company Responses to Participant Recommendations (Excerpt)

Environment: Consideration for the Human Body and the Environment

Q. Wouldn't it be beneficial both to human health and the environment if diesel particulate filters (DPF) were installed on forklifts used at company sites?

A. As long as they are compatible, DPF are installed on all forklifts used at NGK sites. However, there are some forklifts that cannot be fitted with DPF. We will consider this when upgrading forklifts in the future.



Environment: CO₂ Emissions Reduction Activities

Q. Are the activities to reduce CO₂ emitted by individual employees also promoted at overseas plants?

A. Eco-proposal and environmental accounting ledger CO₂ reduction activities conducted in Japan to reduce emissions on an individual basis have not been developed overseas, but we are conducting proposed activities that contribute to energy conservation and efficient manufacturing, which in turn are directly related to the reduction of CO₂ emissions by individual employees. Although cultures differ by country, we plan on introducing activities overseas linked to stimulating awareness activities in the future.

Safety and Health: Workplace Safety Education

Q. Does NGK provide safety and health education in non-manufacturing divisions such as research, development and administration?

A. We provide position-based training and other safety education in non-manufacturing divisions, but since there are limits to this kind of training, it is not provided to all employees. We think it is important that the Safety and Health Committee and managerial posts also provide reminders through low-profile activities. When someone nearby is seen walking while looking at their smartphone or engaging in other potentially dangerous activities, we ask those in managerial posts to provide warnings to all parties to enhance safety awareness.



Safety and Health: Risk Assessment

Q. Can you please explain risk assessment (RA) management?

A. After the serious accident that occurred at the Chita Site in 2012, we went a step beyond our traditional RA activities to engage in comprehensive RA in an attempt to prevent accidents before they occur, such as identifying risks by imagining scenarios requiring quick-thinking behaviors. RA is not something that can be accomplished in one attempt, and in principle, requires application of the PDCA cycle. Considering the intersection of people and sources of risk in the workplace, we evaluate risks, implement policies and prevent accidents before risks occur. We will continue low-profile activities, encouraging all employees to come together in the workplace and develop safety awareness on an individual level, which we believe is linked to a safe working environment.



Q. Are there any other safety activities you are considering besides RA?

A. At present, safety and health activities are centered on RA; residual risks identified through RA involve equipment safety measures (tangible measures), while guidance on the wearing of protective equipment for workers and safety education (intangible measures) are linked to specific accident prevention activities. Moreover, in an attempt to increase safety awareness in the workplace, we continue to conduct activities to heighten safety awareness among all employees and management, including 5S activities, workplace patrols, hazard prediction training (KYT), close call activities, safety proposal activities and visual/verbal confirmation of safety. For eight years, NGK has operated an Occupational Safety and Health Management System (OSHMS), conducting activities aimed at raising the overall level of safety and health throughout the company. We are already formulating safety and health activity plans for each workplace, communicating often with managers and engaging in safety activities from a variety of angles, which we hope will result in a more energetic workplace.

Compliance: Helpline

Q. How exactly is the helpline being used?

- A. The helpline deals with about 20 cases each year. These cases frequently involve trouble stemming from interpersonal relationships in the workplace and power harassment, but compared to the past, sexual harassment incidents are on the decline.

Compliance: Defining Power Harassment

Q. What is meant by the term power harassment? How do you define it and what kinds of activities does it entail?

- A. In the context of one's position in the course of one's duties and predominant interpersonal relationships in the workplace, power harassment involves going beyond the scope of what is appropriate at work, engaging in actions that inflict mental or physical pain and cause the workplace environment to worsen. Frequently, this involves managers who bully and harass the staff under them, but it can also involve trouble among senior and junior staff or between coworkers and even subordinates harassing their manager. We specifically define power harassment as activities including:

1. Slapping; punching; kicking; kicking the chair an employee is sitting in or physical attacks (violence or injury other than power harassment involving punching and kicking).
2. Yelling at an employee loudly in front of other employees; intimidating behaviors, such as threatening to fire someone without the authority to do so, or psychological attacks, such as frequently making fun of a coworker who is not proficient with computers.
3. Social isolating or ignoring a certain employee; not responding to work-related inquiries; not providing information or severing relationships with a certain employee.
4. Forcing an employee to do unnecessary work that is clearly not part of their duties; giving an employee an impossible task, then becoming angry at them or treating them badly when they fail to accomplish said task; asking more than is appropriate given the scope of one's duties.
5. Denying an employee work that is part of their duties for no logical reason; giving an employee work that is inappropriate given the level of their skills and background; demanding less than is appropriate given the scope of one's duties.
6. Intruding into an employee's personal life; personal infringement.

(Note: NGK uses definitions established by the Ministry of Health, Labour and Welfare)

Compliance: Information Security

Q. Recently there has been news coverage of a company whose business activities were halted as a result of the posting of inappropriate pictures on SNS. What do you think NGK's position should be regarding employees and SNS, and do you provide any guidance in this area?

- A. Misguided use of SNS affects not only the person sending the information, but can also cause huge problems for the family members, friends and companies associated with them. Accordingly, in regards to what NGK staff should be careful of when using SNS, we provide reminders through notifications outlining points to remember when using social media, which should be familiar to all employees.
- In July, we held an informative meeting for laws and compliance on the subject of social media and information leaks and included a special feature on points of caution pertaining to individual use of social media in our internal bulletin Mizuho (May edition) as opportunities to remind employees to be cautious when using social media.

Q. Why don't we use Skype or IP phones to talk with overseas Group companies for free?

- A. NGK utilizes firewalls and other security systems to prevent unauthorized access to our internal LAN and the leak of confidential information. However, since Skype utilizes a particular connection method and private encryption technology, our firewall cannot block risky communications, thus the use of Skype is not permitted. Furthermore, we also prohibit the use of other software similar to Skype, including software with file sharing and other functions, to prevent the leak of information.

Corporate Ethics

Q. What is NGK's position regarding competitors who only pursue profit and neglect their social responsibilities?

A. The NGK Group Guidelines for Corporate Behavior, a statement based on a strong sense of ethics and sincere behaviors in and outside the company, represents global rules for practicing legal compliance and fair, free and transparent business. For example, even if a competitor only pursued profits and neglected their social responsibilities, our position on behaviors in line with these Guidelines for Corporate Behavior would remain unchanged. Please make the utmost effort to follow the rules and provide better products in a timely manner.

Disaster Prevention: Business Continuity Planning (BCP)

Q. How does NGK position BCP with its CSR activities?

A. Using proprietary technologies, NGK delivers products globally that contribute to the environment and are indispensable to social infrastructure. We embody our Corporate Philosophy by providing products and services that deliver new value to society. Earning the trust and meeting the expectations of society is our corporate responsibility and the basis of our CSR activities. We maintain BCP to fulfill our social responsibilities in the event of a major earthquake or other disaster.

Q. NGK is prepared for earthquakes, but how will you deal with unexpectedly strong rain and typhoons?

A. Regarding flood and wind damage, every year we make capital investments to implement countermeasures such as rainwater drainage system upgrades and the installation of floodgates. We inform all human resources, administration, engineering, NBK and other employees to consider inundation countermeasures and decision-making regarding going home or coming to work. Recently, sending employees home has resulted in increased difficulty to travel home, so administration is also considering asking employees to stay at work. Since April 2013, we have formulated rules to regulate how employees go home. In response, up to now employees who live more than 10 km from work are assumed to have difficulty getting home, so we maintain emergency food and water, which at present is sufficient to sustain all employees for three days.

Disaster Prevention: Evacuation Training

Q. In terms of evacuation training, should we conduct unannounced and other types of training to be able to respond to unexpected disasters?

A. Regarding evacuation training, all emergency situations are not the same, so when we assume an emergency situation scenario, we think it is important to repeatedly conduct training with the aim of ensuring evacuation behaviors in line with guidance. The reason being, we won't be able to do anything other than what we train for in the event of an unexpected situation. Also, to ensure evacuation is as safe as possible, evacuation methods differ with each type of training.

Work/Vacation/Benefits: Support for Employees Posted Overseas

Q. What kind of support do you provide for employees posted overseas in terms of lifestyle and health?

A. We provide the following various kinds of support:

Before posting

- Conduct pre-posting training
 1. Overseas safety training...lectures by an outside instructor regarding security and crime prevention measures
 2. Health maintenance training...lecture by an industrial physician regarding points to remember in terms of health maintenance while residing overseas
 3. Area studies...lecture by an outside instructor regarding basic knowledge on the country where the employee is being sent (culture, history, working customs, etc.)
 4. Lifestyle counseling...counseling by an outside instructor regarding uncertainties or uneasiness about the local lifestyle
 5. Family discussions...roundtable discussion between employees and their spouses who have been posted overseas and employees and their spouses who will be posted overseas
- Pre-posting health check (employee and accompanying family)
- Explanatory meeting regarding various procedures
- Immunizations provided by company
- Provision of medicine

During posting

- Financial support to help with expenses related to setting up local lifestyle
- Support related to local residence (employee housing or housing allowance)
- Support for maintenance of home left behind when family accompanies employee (allowances, maintenance)
- Storage for items left behind in Japan
- Support for use of automobile overseas (company car or allowance)
- Facilitates loan for purchase of car
- Company pays for temporary trips back to Japan
- Company pays for regular medical checkups for employee and accompanying family
- Company pays for health insurance
- Company provides medical assistant services
- Help with medical expenses incurred overseas
- Allowance provided for children's educational expenses
- Language classes for wife/children paid for by company
- Covers expenses related to correspondence courses for children
- Provides outside counseling regarding children's education

After posting

- Provided with company housing for business use
- Financial assistance with settling in at home after posting
- Medical checkups (for employee and accompanying family)



Work/Vacation/Benefits: Hiring Foreigners

Q. Considering NGK's efforts toward promoting diversity among employees, why does it seem the hiring rate of foreign nationals isn't so high?

A. We hired foreign nationals in the past, but they all left the company within five years after joining the company, which means that their retention rate was very low. Hence we don't put a lot of effort into recruiting foreign nationals specifically. However, we do not intentionally avoid hiring foreign nationals.
We accept foreign national applicants who are enrolled at Japanese universities or graduate schools and screen them as with Japanese national. Although we unofficially offered them, it is a fact that we hired none of them because they declined our unofficial offer eventually.

Work/Vacation/Benefits: Support for Childrearing

Q. Wouldn't it make it easier for employees with children to work if NGK provided daycare facilities onsite?

A. NGK's Nagoya, Chita and Komaki sites are fairly spread out, so we decided that it would be inefficient in terms of cost to provide daycare centers onsite. Instead, we aim to create a more comfortable working environment by bolstering our childrearing system, which includes leaves of absence, shortened working hours, half-day paid holidays and assistance with babysitter expenses.

Education: Training

Q. Wouldn't it be beneficial if we were provided with opportunities to learn about country specific and individual overseas company rules?

A. Part of the training conducted by Human Resources touches on overseas laws and regulations that are difficult to understand in terms of what Japanese consider to be common sense. These include:

Training name	Target	Conducted	Responsible department	Lecture details
Cross-culture communications	Candidates for overseas postings	Each year as follows	Human resource development	Instruction pertaining to areas outside the limits of Japanese common sense and interacting with people from other cultures.
	Recommended employees throughout the company	Annually in June	Human resource development	Instruction pertaining to areas outside the limits of Japanese common sense and interacting with people from other cultures.
Courses on individual countries	Candidates for overseas postings	As needed	Human resource development	Covers business environment of target country as well as unique culture, common sense and national characteristics.
Area studies	Employees chosen for overseas posts	Before posting	Human resource G	Detailed information regarding country of posting, including culture, history and customs.
Lifestyle counseling	Employees chosen for overseas posts Accompanying family members	Before posting	Human resource G	Provides a variety of information on life in the country of posting.
Overseas safety training	Employees chosen for overseas posts	Before posting	Human resource G	Lectures concerning safety and crime prevention overseas.

Health and Welfare: Cafeterias

Q. I want to see local production for local consumption initiatives implemented in our cafeterias. Can we make our cafeterias more environmentally friendly?

A. NGK cafeterias already purchase vegetables and other items from local producers, but going forward, we will consider ways to support local production for local consumption whenever possible. Rather than wasting food, local businesses collect leftover food that is used to make compost, while oil used to fry tempura is collected and processed into fuel.

Health and Welfare: Smoking Areas

Q. Can you relocate the Mizuho smoking area someplace where it won't bother non-smokers?

A. The smoking area located in front of the Mizuho concession stand is used by numerous employees and close to an area where many non-smokers come and go, so we will improve this situation in the future.

Procurement: Green Supplier Certification

Q. Regarding the proportion of certified green suppliers, shouldn't it be based on the overall number of suppliers rather than the amounts purchased from each?

A. At NGK, there is a significant difference between in the highest and lowest amounts we purchase from suppliers, (99% of purchases are made from the top 500 suppliers, the remaining 1% is purchased from suppliers ranked from 500-750). Nevertheless, distortions occur when the ratio is calculated giving each company equal weight. We think basing the ratio on amounts purchased provides us with a more accurate indicator of green procurement. The green procurement certification ratio is calculated using the ratio of purchases by NGK on a non-consolidated basis, or by each Group company, in the denominator. As a result, because the 97% NGK (non-consolidated) and 61% Group companies certification ratio difference is not a difference in amount purchased, and because Group company suppliers account for a comparatively smaller scale of transactions, as opposed to vigorous green activities, the effect of calculating according to amounts purchased makes certification difficult.

Advertising: Corporate Advertisement

Q. To raise awareness of the NGK company name, have you considered advertisements on the sides of municipal buses that operate near the headquarters?

A. It would seem that this kind of advertising would be effective if the objective were to increase employee motivation. However, at present, corporate advertising activities are aimed at increasing recognition and promoting understanding among people who are still unfamiliar with NGK. On the outskirts of Nagoya, we acquired naming rights for the Nippon Gaishi Hall, so many bus riders are already familiar with our company name. Operating within a limited budget, we make various creative attempts to promote recognition and understanding through the combination of multiple media formats. Going forward, we will make an effort to find the best advertising media and methods.

Company Responses to Participant Questions: Energy Support (Excerpt)

CSR: Promotion Items

Q. What do you think is the key to the practical achievement of CSR promotion items and objectives?

A. No matter what the objective, it will not be difficult to put into practice as long as we create some kind of structure or mechanism. Rather than involving only certain people and work activities, the promotion of CSR involves activities that heighten the awareness of all employees, which is linked to the practical achievement of promoted objectives.



CSR: Initiatives

Q. How does NGK convey its appeal in areas such as products, human resources and infrastructure to overseas companies and foreigners?

A. Recently, we have begun moving toward targeting participation in overseas markets, including cylinder PCs for the China market. Going forward, we will search for other markets with potential, gradually promoting development of products with overseas development potential and the creation of networks.



CSR: Report

Q. If we receive a major complaint, should those detail, as well as corresponding countermeasures and improvements, be included in the CSR report? Also, what do you think about conducting Talk Live company-wide?

A. When we receive a complaint, we take steps to initiate a response, including the disclosure of information to power companies and other customers. We also disseminate information to employees through a managing directors meeting report. Currently, there is no specific information regarding complaints included in the energy support social/environmental report, but we will consider this issue going forward. We want to gradually expand Talk Live.



Q. From here on out, how do you plan to assess CSR initiatives?

A. The content of NGK's CSR report conforms to the PDCA cycle, clearly indicating objectives and achievement status. This is also the case with our social/environmental report, and we are considering how we can present objectives and achievement status in an even easier to understand format.

Work/Vacation/Benefits: Half-Time Work

Q. Regarding NGK's introduction of half-time work, can you tell us about manufacturing worksite difficulties and innovations?

A. In an aim to create a workplace environment where it is easy to continue working, NGK introduced half-time work (three days per week) for rehired employees. There are no particular difficulties or innovations to mention, but we ensured the system was well understood before it was introduced and have made every effort since its introduction to sufficiently explain this system to half-time workers and the organizations to which they belong.

2 Distributing the Latest CSR Activities Information on the Company Intranet

In December 2010, we launched the CSR-Web on our company intranet to promote CSR-related initiatives with the aim of instilling CSR in all NGK domestic Group company employees. We make an effort to provide exclusive and detailed information, including CSR Committee deliberations and Q&A from CSR Talk Live session dialogs between top management and employees, as well as CSR topics and area-based targets we want employees to share, in addition to distributing new and updated information when necessary.

Again in fiscal 2013, we posted the entire Q&A content from each CSR Talk Live session held in 2013 as well as the CSR Committee Report. We also regularly update the status of activities, including social contribution activity items at Group companies, in an attempt to provide as much information as possible.

Aiming to provide content that employees strongly feel they want to read and distribute information in real time, at present we are considering a major overhaul of our intranet site.



GRI Guidelines ISO26000 Comparison Table

NGK CSR fiscal 2012 activities compared to Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G3.1) and ISO26000 Guidelines. Each index is link to the corresponding report page.

* Non-classifiable individual issues are listed under related core subjects.

GRI Guideline 3.1 Standard Disclosures			ISO26000 Issues *	Publication Location	
				Web Version Full Report	Print Version
Strategy and Analysis					
1.1		Statement from the most senior decision-maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	-	<ul style="list-style-type: none"> CSR > Management's Commitment 	P5-6 Management's Commitment
1.2		Description of key impacts, risks, and opportunities.	-	<ul style="list-style-type: none"> CSR > Management's Commitment CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability > NAS Battery Systems for Large-Capacity Electric Energy Storage CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Reinforcement of the Risk Management System > Training Aimed at Establishing a Business Continuity Structure CSR > As a Member of Society: Communications with Stakeholders > Conducting Supplier Visitation Activities in Japan and Overseas 	P5-6 Management's Commitment P22 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability > NAS Battery Systems for Large-Capacity Electric Energy Storage P24 II How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Reinforcement of the Risk Management System > Training Aimed at Establishing a Business Continuity Structure P38 III As a Member of Society: Communications with Stakeholders > Conducting Supplier Visitation Activities in Japan and Overseas

Organizational Profile					
2.1		Name of the organization.	-	<ul style="list-style-type: none"> About NGK > Corporate Outline 	P2 Corporate Outline
2.2		Primary brands, products, and/or services.	-	<ul style="list-style-type: none"> Products CSR > Special Feature: The Challenge of Creating New Value CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Topics 2013: Collecting Over 99% of Particulate Matter (PM) Emitted from Diesel Power Generators CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Enhancing the Vehicle Exhaust Emissions Control Product Manufacturing Structure in Response to Market Demands CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Development and Production of Various Products That Contribute to the Environment CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability > NAS Battery Systems for Large-Capacity Electric Energy Storage 	<p>P3 NGK Group Products</p> <p>P8-12 Special Feature: The Challenge of Creating New Value</p> <p>P19 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Topics 2012: Collecting Over 99% of Particulate Matter (PM) Emitted from Diesel Power Generators</p> <p>P20 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Enhancing the Vehicle Exhaust Emissions Control Product Manufacturing Structure in Response to Market Demands</p> <p>P20 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Development and Production of Various Products That Contribute to the Environment</p> <p>P22 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability > NAS Battery Systems for Large-Capacity Electric Energy Storage</p>
2.3		Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	-	<ul style="list-style-type: none"> Investor Relations > IR Library > Annual Report > Subsidiaries and Affiliated Companies (P54-55) 	P2 Corporate Outline > Business Development by Region
2.4		Location of organization's headquarters.	-	<ul style="list-style-type: none"> About NGK > Corporate Outline Investor Relations > IR Library > Annual Report > Corporate Data (P56) 	P2 Corporate Outline
2.5		Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	-		
2.6		Nature of ownership and legal form.	-	<ul style="list-style-type: none"> About NGK > Corporate Outline CSR > How to Engage in Business Activities: Disclosure of Corporate Information > Enhancement of Corporate Information Disclosure > Shareholders Information 	

2.7		Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	-	▪ About NGK > Network	P2 Corporate Outline > Business Fields and Segments P2 Corporate Outline > Business Development by Region
2.8		Scale of the reporting organization, including: ▪ Number of employees; ▪ Net sales (for private sector organizations) or net revenues (for public sector organizations); ▪ Total capitalization broken down in terms of debt and equity (for private sector organizations); and ▪ Quantity of products or services provided.	-	▪ Investor Relations > IR Library > Annual Report > Financial Highlights (P01) ▪ Investor Relations > IR Library > Annual Report > Consolidated Balance Sheet (P10-11) ▪ Investor Relations > IR Library > Annual Report > Consolidated Statement of Income (P12) , Consolidated Statement of Comprehensive Income (P13)	P3 NGK Group Products * Quantity of products or services provided P2-4 Corporate Outline, Business Overview * Number of employees * Total capitalization * Net sales
2.9		Significant changes during the reporting period regarding size, structure, or ownership including: ▪ The location of, or changes in operations, including facility openings, closings, and expansions; and ▪ Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).	-	▪ CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Enhancing the Vehicle Exhaust Emissions Control Product Manufacturing Structure in Response to Market Demands ▪ CSR > How to Engage in Business Activities: Disclosure of Corporate Information > Enhancement of Corporate Information Disclosure > Shareholders Information	P20 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment > Enhancing the Vehicle Exhaust Emissions Control Product Manufacturing Structure in Response to Market Demands
Report Parameters					
Report Profile					
3.1		Reporting period (e.g., fiscal/calendar year) for information provided.	-	▪ CSR > CSR Report 2014 Editorial Policy > Target Period	P1 Editorial Policy > Target Period
3.2		Date of most recent previous report (if any).	-		
3.3		Reporting cycle (annual, biennial, etc.);	-	▪ CSR > CSR Report 2014 Editorial Policy > Target Period	P1 Editorial Policy > Target Period
3.4		Contact point for questions regarding the report or its contents.	-	▪ Contact	Back cover
Report Scope and Boundary					
3.5		Process for defining report content, including: ▪ Determining materiality; ▪ Prioritizing topics within the report; and ▪ Identifying stakeholders the organization expects to use the report.	-	▪ CSR > CSR Report 2014 Editorial Policy ▪ CSR > CSR Objectives and Achievements ▪ CSR > As a Member of Society: Preservation of Global Environment > Fiscal 2012 Initiatives Within the Third Five-Year Environmental Action Plan (2011-2015)	P1 Editorial Policy P15-18 CSR Objectives and Achievements P32 III As a Member of Society: Preservation of Global Environment > Fiscal 2012 Initiatives Within the Third Five-Year Environmental Action Plan (2011-2015)

3.6		Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance.	-	<ul style="list-style-type: none"> ▪ CSR > CSR Report 2014 Editorial Policy ▪ CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > Activities Covered ▪ CSR > As a Member of Society: Preservation of Global Environment > Third Five-Year Environmental Action Plan (2011-2015) Progress Report > Activities Covered 	P1 Editorial Policy P30 Activities Covered * Environmental only
3.7		State any specific limitations on the scope or boundary of the report	-	* Listed as necessary;	* Listed as necessary;
3.8		Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	-		
3.9		Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	-	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Domestic and Overseas CO2 Reduction Plans Progressing on Track * Listed in notes 	P32 III As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Domestic and Overseas CO2 Reduction Plans Progressing on Track * Listed in notes
3.10		Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	-		
3.11		Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	-		
GRI Content Index					
3.12		Table identifying the location of the Standard Disclosures in the report.	-	<ul style="list-style-type: none"> ▪ CSR > CSR Objectives and Achievements > CSR Objectives and Achievements * Listed in reference 	P15-18 CSR Objectives and Achievements > CSR Objectives and Achievements * Listed in reference
Assurance					
3.13		Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	-		

Governance, Commitments, and Engagement				
Governance				
4.1		Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives <p>P13 Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives</p>
4.2		Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ Investor Relations > IR Library > Annual Report > Board of Directors, Corporate Officers and Audit & Supervisory Board (P57)
4.3		For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ Investor Relations > IR Library > Annual Report > Board of Directors, Corporate Officers and Audit & Supervisory Board (P57)
4.4		Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Disclosure of Corporate Information > Enhancement of Corporate Information Disclosure > Continue to Provide Fair and Honest Information Disclosure in a Timely and Appropriate Manner ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Proactive Exchange of Opinions Among Labor-Management Regarding Management Issues and Welfare
4.5		Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	6.2 Organizational governance	
4.6		Processes in place for the highest governance body to ensure conflicts of interest are avoided.	6.2 Organizational governance	
4.7		Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	6.2 Organizational governance	

4.8		Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > CSR Management ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Thorough Promulgation of the NGK Group Guidelines for Corporate Behavior Through Education ▪ CSR > As a Member of Society: Preservation of Global Environment > NGK's Core Policy on the Environment/Promotion Structure ▪ CSR > As a Member of Society: Preservation of Global Environment > NGK's Core Policy on the Environment/Promotion Structure > Environmental Management System > Environmental Management System Initiatives ▪ CSR > As a Member of Society: Preservation of Global Environment > NGK's Core Policy on the Environment/Promotion Structure > Environmental Management System > Environmental Risk Management 	P13 Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives P30 III As a Member of Society: Preservation of Global Environment > NGK's Core Policy on the Environment/Promotion Structure
4.9		Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > Corporate Governance ▪ CSR > CSR Management > CSR Activities Basic Concepts and Systems 	P13 Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives P14 Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives
4.10		Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Management System > Environmental Audits * Environmental only 	P13 Corporate Governance > Basic Approach to Corporate Governance and Status Initiatives
Commitments to External Initiatives					
4.11		Explanation of whether and how the precautionary approach or principle is addressed by the organization.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > Web Version Full Report 2013 > As a Member of Society: Preservation of Global Environment > NGK's Core Policy on the Environment/Promotion Structure 	P30 III As a Member of Society: Preservation of Global Environment > NGK's Core Policy on the Environment/Promotion Structure
4.12		Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	6.2 Organizational governance		

4.13		Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> ▪ Has positions in governance bodies; ▪ Participates in projects or committees; ▪ Provides substantive funding beyond routine membership dues; or ▪ Views membership as strategic. 	6.2 Organizational governance		
Stakeholder Engagement					
4.14		List of stakeholder groups engaged by the organization.	6.2 Organizational governance		
4.15		Basis for identification and selection of stakeholders with whom to engage.	6.2 Organizational governance		
4.16		Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Disclosure of Corporate Information > Enhancement of Corporate Information Disclosure ▪ CSR > As a Member of Society: Communications with Stakeholders 	P38 III As a Member of Society: Communications with Stakeholders > Communication with Customers and Procurement Partners > Conducting Supplier Visitation Activities in Japan and Overseas
4.17		Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	6.2 Organizational governance	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Communications with Stakeholders > Communication with Customers and Procurement Partners > Conducting Supplier Visitation Activities in Japan and Overseas ▪ CSR > Third-Party Opinion 	P38 III As a Member of Society: Communications with Stakeholders > Communication with Customers and Procurement Partners > Conducting Supplier Visitation Activities in Japan and Overseas P40 Third-Party Opinion

* Non-classifiable individual issues are listed under related core subjects.

GRI Guideline 3.1 Standard Disclosures			ISO26000 Issues *	Publication Location	
				Web Version Full Report	Print Version
Economic					
		Management Approach			
Economic Performance					
EC1	C O R E	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	6.8.3 Community involvement 6.8.7 Wealth and income creation	<ul style="list-style-type: none"> Investor Relations > IR Library > Annual Report > Financial Highlights (P01) CSR > How to Engage in Business Activities: Disclosure of Corporate Information > Enhancement of Corporate Information Disclosure > Measures for Returning Profits to Shareholders 	P4 Business Overview (Consolidated)
EC2	C O R E	Financial implications and other risks and opportunities for the organization's activities due to climate change.	6.2 Organizational governance 6.5.5 Climate change mitigation and adaptation		
EC3	C O R E	Coverage of the organization's defined benefit plan obligations.	-		
EC4	C O R E	Significant financial assistance received from government.	6.6.4 Responsible political involvement		
Market Presence					
EC5	A D D	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	6.4.4 Conditions of work and social protection 6.8.7 Wealth and income creation		
EC6	C O R E	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	6.6.6 Promoting social responsibility in the value chain 6.8.5 Employment creation and skills development	<ul style="list-style-type: none"> About NGK > Procurement Information CSR > How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Fair and Honest Evaluation of Procurement Partners, and Extensive Resource Diversification <p>* Policy and practices</p>	P29 II How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Fair and Honest Evaluation of Procurement Partners, and Extensive Resource Diversification
EC7	C O R E	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	6.8.5 Employment creation and skills development		

Indirect Economic Impacts					
EC8	C O R E	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	6.3.9 Economic, social and cultural rights 6.8.9 Social investment		
EC9	A D D	Understanding and describing significant indirect economic impacts, including the extent of impacts.	6.3.9 Economic, social and cultural rights 6.6 Fair operating practices 6.7 Consumer issues 6.8 Community involvement and development		

* Non-classifiable individual issues are listed under related core subjects.

GRI Guideline 3.1 Standard Disclosures			ISO26000 Issues *	Publication Location	
				Web Version Full Report	Print Version
Environmental					
		Management Approach	-		
Materials					
EN1	C O R E	Materials used by weight or volume.	6.5.4 Sustainable resource use	▪ CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
EN2	C O R E	Percentage of materials used that are recycled input materials.	6.5.4 Sustainable resource use		
Energy					
EN3	C O R E	Direct energy consumption by primary energy source.	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
EN4	C O R E	Indirect energy consumption by primary source.	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
EN5	A D D	Energy saved due to conservation and efficiency improvements.	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Accounting ▪ CSR > As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency ▪ > Other Initiatives Aimed at Reducing CO2 Emissions	P32-33 III As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency > Other Initiatives Aimed at Reducing CO2 Emissions
EN6	A D D	Initiatives to provide energy-efficient or renewable energy-based products and services, and reductions in energy requirements as a result of these initiatives.	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ CSR > Special Feature: The Challenge of Creating New Value ▪ CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability ▪ CSR > As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency ▪ > Other Initiatives Aimed at Reducing CO2 Emissions	P8-12 Special Feature: The Challenge of Creating New Value P22 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability P32-33 III As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency > Other Initiatives Aimed at Reducing CO2 Emissions

EN7	A D D	Initiatives to reduce indirect energy consumption and reductions achieved	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency ▪ > Other Initiatives Aimed at Reducing CO2 Emissions 	P32-33 III As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency > Other Initiatives Aimed at Reducing CO2 Emissions
Water					
EN8	C O R E	Total water withdrawal by source.	6.5.4 Sustainable resource use	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output 	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
EN9	A D D	Water sources significantly affected by withdrawal of water.	6.5.4 Sustainable resource use 6.5.6 Protection of the environment, biodiversity and restoration of natural habits		
EN10	A D D	Percentage and total volume of water recycled and reused.	6.5.4 Sustainable resource use	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output 	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
Biodiversity					
EN11	C O R E	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	6.5.6 Protection of the environment, biodiversity and restoration of natural habits		
EN12	C O R E	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	6.5.6 Protection of the environment, biodiversity and restoration of natural habits		
EN13	A D D	Habitats protected or restored.	6.5.6 Protection of the environment, biodiversity and restoration of natural habits		
EN14	A D D	Strategies, current actions, and future plans for managing impacts on biodiversity.	6.5.6 Protection of the environment, biodiversity and restoration of natural habits		
EN15	A D D	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	6.5.6 Protection of the environment, biodiversity and restoration of natural habits		

Emissions, Effluents, and Waste					
EN16	C O R E	Total direct and indirect greenhouse gas emissions by weight.	6.5.5 Climate change mitigation and adaptation	<ul style="list-style-type: none"> CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output 	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
EN17	C O R E	Other relevant indirect greenhouse gas emissions by weight.	6.5.5 Climate change mitigation and adaptation		
EN18	A D D	Initiatives to reduce greenhouse gas emissions and reductions achieved.	6.5.5 Climate change mitigation and adaptation	<ul style="list-style-type: none"> CSR > As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Domestic and Overseas CO2 Reduction Plans Progressing on Track CSR > As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency > Other Initiatives Aimed at Reducing CO2 Emissions CSR > As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Introducing Green Power Since 2002 	<p>P32 III As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Domestic and Overseas CO2 Reduction Plans Progressing on Track</p> <p>P32-33 III As a Member of Society: Preservation of Global Environment > Adoption of Environmentally Friendly Production Processes > Controlling CO2 Emissions through Manufacturing Process Efficiency > Other Initiatives Aimed at Reducing CO2 Emissions</p> <p>P32 III As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Introducing Green Power Since 2002</p>
EN19	C O R E	Emissions of ozone-depleting substances by weight.	6.5.3 Prevention of pollution 6.5.5 Climate change mitigation and adaptation		
EN20	C O R E	NOx, SOx, and other significant air emissions by type and weight.	6.5.3 Prevention of pollution	<ul style="list-style-type: none"> CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output 	P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output
EN21	C O R E	Total water discharge by quality and destination.	6.5.3 Prevention of pollution	<ul style="list-style-type: none"> CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output 	<p>P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output</p> <p>* Aggregate amount only</p>
EN22	C O R E	Total weight of waste by type and disposal method.	6.5.3 Prevention of pollution	<ul style="list-style-type: none"> CSR > As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output * Total weight of waste by disposal method CSR > As a Member of Society: Preservation of Global Environment > Promotion of Resource Recycling 	<p>P30 III As a Member of Society: Preservation of Global Environment > Overall Perspective of Environmental Impact > NGK Input/Output</p> <p>* Total weight of waste by disposal method</p> <p>P33 III As a Member of Society: Preservation of Global Environment > Promotion of Resource Recycling > Maintaining High Level Domestic Recycling Rates</p>

EN23	C O R E	Total number and volume of significant spills.	6.5.3 Prevention of pollution	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Management System > Environmental Risk Management > Regulatory Compliance * No significant regulatory 	
EN24	A D D	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I , II , III , and VIII, and percentage of transported waste shipped internationally.	6.5.3 Prevention of pollution		
EN25	A D D	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	6.5.6 Protection of the environment, biodiversity and restoration of natural habits		
Products and Services					
EN26	C O R E	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	6.5 the environment 6.6.6 Promoting social responsibility in the value chain 6.7.5 Sustainable consumption	<ul style="list-style-type: none"> ▪ CSR > Special Feature: The Challenge of Creating New Value ▪ CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment ▪ CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability ▪ CSR > As a Member of Society: Preservation of Global Environment > Promotion of Resource Recycling ▪ CSR > As a Member of Society: Preservation of Global Environment > Strengthening of Global Environmental Management ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Management System > Education and Development ▪ Products > Ceramic Products Business > Automotive & Industrial Ceramics Business > HONEYCERAM ▪ Products > Ceramic Products Business > Chemical Apparatus Business > High-Temperature Dust Collector (CERALLEC SYSTEM) ▪ Products > Ceramic Products Business > Energy & Nuclear Systems Business > Low-Level Radwaste Treatment System ▪ Products > Gas Analysis Products > Gas Analyzer 	P8-12 Special Feature: The Challenge of Creating New Value P19-20 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Help to Preserve the Natural Environment P22 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability P33 III As a Member of Society: Preservation of Global Environment > Promotion of Resource Recycling P34 III As a Member of Society: Preservation of Global Environment > Strengthening of Global Environmental Management

EN27	C O R E	Percentage of products sold and their packaging materials that are reclaimed by category.	6.5.4 Sustainable resource use 6.6.6 Promoting social responsibility in the value chain 6.7.5 Sustainable consumption		
Compliance					
EN28	C O R E	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	6.2 Organizational governance 6.5 the environment 6.6.3 Anti-corruption	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Management System > Environmental Risk Management > Regulatory Compliance * No significant regulatory 	
Transport					
EN29	A D D	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	6.5 the environment 6.6.6 Promoting social responsibility in the value chain	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Other Initiatives Aimed at Reducing CO2 Emissions 	P32-33 III As a Member of Society: Preservation of Global Environment > Prevention of Global Warming > Other Initiatives Aimed at Reducing CO2 Emissions
Overall					
EN30	A D D	Total environmental protection expenditures and investments by type.	6.2 Organizational governance 6.5 the environment	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Accounting 	

* Non-classifiable individual issues are listed under related core subjects.

GRI Guideline 3.1 Standard Disclosures			ISO26000 Issues *	Publication Location	
				Web Version Full Report	Print Version
Social					
Labor Practices and Decent Work					
		Management Approach	-		
Employment					
LA1	C O R E	Total workforce by employment type, employment contract, and region, broken down by gender.	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship		
LA2	C O R E	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship		
LA3	A D D	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.	6.4.4 Conditions of work and social protection		
LA15	C O R E	Return to work and retention rates after parental leave, by gender.	6.4.4 Conditions of work and social protection		
Labor/ Management Relations					
LA4	C O R E	Percentage of employees covered by collective bargaining agreements.	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship 6.4.5 Social Dialogue		
LA5	C O R E	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements.	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship 6.4.5 Social Dialogue		

Occupational Health and Safety					
LA6	A D D	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship 6.4.6 Health and safety at work		
LA7	C O R E	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.	6.4.6 Health and safety at work	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Topics 2013:Promoting Safety and Health Activities at Overseas Group Companies ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Focusing Efforts on Heightened Safety Awareness 	<p>P27 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Topics 2013:Promoting Safety and Health Activities at Overseas Group Companies</p> <p>P28 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Focusing Efforts on Heightened Safety Awareness</p>
LA8	C O R E	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	6.4.6 Health and safety at work 6.8.8 Health	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Promoting Interviews and Health Checks for Employees Working Long Hours ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Extention of Activities Supporting Mental and Physical Health 	
LA9	A D D	Health and safety topics covered in formal agreements with trade unions.	6.4.6 Health and safety at work 6.4.5 Social Dialogue	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Support for Better Balance between Work and Home Life/Childrearing > Leaving Work on Time Expanded to Two Days Per Week Work-Life Balance Actualization Card Created 	<p>P26 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Support for Better Balance between Work and Home Life/Childrearing > Leaving Work on Time Expanded to Two Days Per Week Work-Life Balance Actualization Card Created</p>

Training and Education					
LA10	C O R E	Average hours of training per year per employee, by gender, and by employee category.	6.4.7 Human development and training in the workplace		
LA11	A D D	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	6.4.7 Human development and training in the workplace 6.8.5 Employment creation and skills development	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Development of Human Capital and Recruiting of Human Resources across the Group ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Topics 2013:Promoting the Recruitment of Female Managers In Japan and Overseas ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Encouraging Women to Actively Participate with a System for Transferring from General Employment Jobs ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Two Systems for Making Use of Employee Individuality and Skills ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Extending Transfers to Regular Employment and Double Promotions to Contract Manufacturing Employees ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Updating System for Rehiring Employees to Include Half-Time Employment Option 	<p>P25 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Topics 2013:Promoting the Recruitment of Female Managers In Japan and Overseas</p> <p>P26 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Encouraging Women to Actively Participate with a System for Transferring from General Employment Jobs</p>

LA12	A D D	Percentage of employees receiving regular performance and career development reviews, by gender.	6.4.7 Human development and training in the workplace	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Development of Human Capital and Recruiting of Human Resources across the Group ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Encouraging Women to Actively Participate with a System for Transferring from General Employment Jobs ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Two Systems for Making Use of Employee Individuality and Skills ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Management of Follow-up System to Fit Young Employees in the Workplace 	
Diversity and Equal Opportunity					
LA13	C O R E	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity.	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Employment of People With Disabilities Surpasses Legally Mandated Ratio 	<p>P25 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Topics 2013:Promoting the Recruitment of Female Managers In Japan and Overseas</p> <p>P26 II How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Utilization of Diverse Human Resources > Encouraging Women to Actively Participate with a System for Transferring from General Employment Jobs</p>
Equal Remuneration for Women and Men					
LA14	C O R E	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	6.3.10 Fundamental principles and rights at work 6.4.3 Employment and employment relationship		

Human Rights					
	-	Management Approach			
Investment and Procurement Practices					
HR1	C O R E	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	6.3 Human rights 6.6 Fair operating practices		
HR2	C O R E	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken.	6.3 Human rights 6.6.6 Promoting social responsibility in the value chain		
HR3	C O R E	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	6.3 Human rights 6.6.6 Promoting social responsibility in the value chain		
Non-discrimination					
HR4	C O R E	Total number of incidents of discrimination and corrective actions taken.	6.3.3 Due diligence 6.3.6 Resolving grievances 6.3.7 Discrimination and vulnerable groups	<ul style="list-style-type: none"> CSR > How to Engage in Business Activities: Respect of Humanity and Assurance of Comfortable Working Environment > Maintenance and Consistent Improvement of Safe and Comfortable Working Environments > Respect for Human Rights and Thorough Prevention of Harassment 	
Freedom of Association and Collective Bargaining					
HR5	C O R E	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	6.3.3 Due diligence 6.3.5 Avoidance of complicity 6.3.10 Fundamental principles and rights at work 6.4.5 Social Dialogue 6.6.6 Promoting social responsibility in the value chain	<ul style="list-style-type: none"> CSR > How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement 	P29 II How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement
Child Labor					
HR6	C O R E	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	6.3.3 Due diligence 6.3.5 Avoidance of complicity 6.3.10 Fundamental principles and rights at work 6.6.6 Promoting social responsibility in the value chain	<ul style="list-style-type: none"> CSR > How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement 	P29 II How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement

Forced and Compulsory Labor					
HR7	C O R E	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	6.3.3 Due diligence 6.3.5 Avoidance of complicity 6.3.10 Fundamental principles and rights at work 6.6.6 Promoting social responsibility in the value chain	▪ CSR > How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement	P29 II How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement
Security Practices					
HR8	A D D	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	6.3 Human rights 6.4.7 Human development and training in the workplace 6.6.6 Promoting social responsibility in the value chain	▪ CSR > How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Promotion of CSR Procurement > NGK Group's Supply-Chain CSR Guidelines	
Indigenous Rights					
HR9	A D D	Total number of incidents of violations involving rights of indigenous people and actions taken.	6.3.3 Due diligence 6.3.6 Resolving grievances 6.3.7 Discrimination and vulnerable groups 6.6.6 Promoting social responsibility in the value chain		
Assessment					
HR10	C O R E	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	6.3 Human rights 6.6 Fair operating practices		
Remediation					
HR11	C O R E	Number of grievances related to human rights filed, addressed, and resolved through formal grievance mechanisms.	6.3 Human rights	▪ About NGK > Corporate Philosophy, and NGK Group Guidelines for Corporate Behavior > Compliance > Helpline System	
Society					
		Management Approach			
Local Communities					
SO1	C O R E	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	6.3.3 Due diligence 6.5 the environment 6.6 Fair operating practices 6.8 Community involvement and development	▪ CSR > As a Member of Society > Coordination with Local Communities and Promotion of Contribution to the Society ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Communication > Conducting Guest Lectures on the Subject of Water	P35-36 III As a Member of Society > Coordination with Local Communities and Promotion of Contribution to the Society
SO9	C O R E	Operations with significant potential or actual negative impacts on local communities.	6.3.3 Due diligence 6.5 the environment 6.6 Fair operating practices 6.8 Community involvement and development		

SO10	C O R E	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	6.3.3 Due diligence 6.5 the environment 6.6 Fair operating practices 6.8 Community involvement and development	<ul style="list-style-type: none"> ▪ CSR > As a Member of Society: Preservation of Global Environment > Environmental Management System > Environmental Risk Management > Emergency Response Training/Patrols 	
Corruption					
SO2	C O R E	Percentage and total number of business units analyzed for risks related to corruption.	6.2 Organizational governance 6.6 Fair operating practices	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Reinforcement of the Risk Management System > Risk Countermeasures Based on CSA Questionnaire 	
SO3	C O R E	Percentage of employees trained in organization's anti-corruption policies and procedures.	6.2 Organizational governance 6.4.7 Human development and training in the workplace 6.6 Fair operating practices	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Respect and Protection of Intellectual Property Rights ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Creation and Consistent Improvement of a Framework for Information Security ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Strict Adherence to the Anti-Monopoly Act, Subcontract Act, and Other Laws and Regulations Pertaining to Business Transactions > Reinforcing Efforts to Observe Competition-Related Laws ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Strict Adherence to the Anti-Monopoly Act, Subcontract Act, and Other Laws and Regulations Pertaining to Business Transactions > Individual Support to Business Groups and Group Companies ▪ CSR > How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Strict Adherence to Laws and Regulations Relating to Export Management ▪ CSR > How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement 	<p>P23 II How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Strict Adherence to the Anti-Monopoly Act, Subcontract Act, and Other Laws and Regulations Pertaining to Business Transactions > Reinforcing Efforts to Observe Competition-Related Laws</p> <p>P24 II How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Respect and Protection of Intellectual Property Rights</p> <p>P24 II How to Engage in Business Activities: Thorough Enforcement of Compliance; Risk Management > Strict Adherence to Laws and Regulations Relating to Export Management</p> <p>P29 II How to Engage in Business Activities: Implementation of Fair, Free and Transparent Transactions > Topics 2013:Promotion of CSR Procurement</p>
SO4	C O R E	Actions taken in response to incidents of corruption.	6.2 Organizational governance 6.6 Fair operating practices	<ul style="list-style-type: none"> ▪ CSR > How to Engage in Business Activities: Disclosure of Corporate Information > Consistent Improvement of Internal Controls Relating to Financial Reporting * Addresses future possible illegalities 	

Public Policy					
SO5	C O R E	Public policy positions and participation in public policy development and lobbying.	6.6 Fair operating practices 6.8 Community involvement and development		
SO6	A D D	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	6.6 Fair operating practices 6.8.9 Social investment		
Anti-Competitive Behavior					
SO7	C O R E	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.	6.6.3 Anti-corruption 6.6.5 Fair competition"		
Compliance					
SO8	C O R E	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	6.2 Organizational governance 6.6 Fair operating practices		
Product Responsibility					
		Management Approach			
Customer Health and Safety					
PR1	C O R E	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	6.3.3 Due diligence 6.6.6 Promoting social responsibility in the value chain 6.7.4 Protecting consumers' health and safety	<ul style="list-style-type: none"> CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Realization of Higher Quality Products and Services CSR > Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability 	<p>P21 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Realization of Higher Quality Products and Services</p> <p>P22 I Realization of Corporate Philosophy: Provision of Products That Contribute to Better Social Environment > Development and Provision of Products and Services That Embody Safety and Reliability</p>
PR2	A D D	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services, by type of outcomes.	6.2 Organizational governance 6.6.3 Anti-corruption 6.6.6 Promoting social responsibility in the value chain 6.7.4 Protecting consumers' health and safety		
Product and Service Labeling					
PR3	C O R E	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	6.7.6 Consumer service, support, and complaint and dispute resolution	<ul style="list-style-type: none"> CSR > As a Member of Society: Communications with Stakeholders > Communication with Customers and Procurement Partners > Promoting the Creation of a Mechanism for Responding to Customer Voices 	P38 III As a Member of Society: Communications with Stakeholders > Communication with Customers and Procurement Partners > Promoting the Creation of a Mechanism for Responding to Customer Voices
PR4	A D D	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	6.2 Organizational governance 6.7.3 Fair marketing, factual and unbiased information and fair contractual practices		

PR5	A D D	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	6.7.6 Consumer service, support, and complaint and dispute resolution	■ CSR > As a Member of Society: Communications with Stakeholders > Communication with Customers and Procurement Partners > Promoting the Creation of a Mechanism for Responding to Customer Voices	
Marketing Communications					
PR6	C O R E	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	6.2 Organizational governance 6.7.3 Fair marketing, factual and unbiased information and fair contractual practices		
PR7	A D D	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes.	6.2 Organizational governance 6.7.3 Fair marketing, factual and unbiased information and fair contractual practices		
Customer Privacy					
PR8	A D D	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	6.3.6 Resolving grievances 6.7.6 Consumer service, support, and complaint and dispute resolution 6.7.7 Customer data protection and privacy		
Compliance					
PR9	C O R E	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	6.2 Organizational governance 6.7.3 Fair marketing, factual and unbiased information and fair contractual practices		

Third-Party Opinion

There is superb merit in the NGK Group CSR initiatives and report: they are easy to understand. The NGK Group CSR Report 2014 clearly conveys this ease of understanding in three ways.

First of all, it is easy to understand that the business conducted by NGK is itself directly linked to CSR. This enhances a feeling of pride and increases motivation to work among management, employees and even suppliers. Making use of their strengths in ceramics technologies, including the family of ceramic products such as CERALLEC systems and other ceramic products that remove over 99% of the particulate matter (PM) emitted by diesel generators that cause air pollution and contribute to the prevention of health problems, as well as NAS battery systems for electric energy storage that facilitate power demand peak cut and provide stable and renewable energy, it is not going too far to say that these business areas address societal issues and needs on a global scale. Management's commitment to the "continued creation of products with value to society as a global manufacturing company" is a strong declaration on putting concrete CSR into practice primarily.

Second, it is easy to understand that NGK engages in CSR in accordance with the PDCA management cycle. This is linked to the efficiency and efficacy of these initiatives. NGK formulated eight actions for promoting CSR defined in the NGK Group Guidelines for Corporate Behavior based on the corporate philosophy "NGK products and technologies must create new value and contribute to the quality of life." Detailed CSR objectives established in accordance with these eight actions are formulated each year as an action plan. Then these activities are carried out, reviewed and used to formulate actions in the next fiscal year. As for the status of these consistent initiatives, design reviews (DR), which are positioned as the most important company-wide quality activity, and company-wide 5S (sort, set in order, shine, standardize, sustain) activities demonstrate the development of activities on solid footing.

Third, the reporting of CSR initiatives is also easy to understand. It promotes stakeholder understanding and brings the company closer to its stakeholders. With regard to specific initiatives in fiscal 2013, the special feature titled "The Challenge of Creating New Value," specific and ingenious charts and graphs illustrating each action for promoting CSR based on CSR objectives and the use of photographs result in a report that is easy to understand and deserve special mention. It feels as if this is the very embodiment of NGK's intention to convey activity details to the public that are easily understandable.

Although CSR promotion activities and objectives are not presented as targets, activities important for society are reported in the CSR Report 2014 and on the NGK CSR website. This shows the sincerity of NGK's position. That being said, I might also add that in this time of great change, I think it would be beneficial to revise these targets with the aim of realizing ongoing improvements to CSR promotion activities and objectives.



Mr. Koichi Ikeda

Director, Society & Enterprise Laboratory

Response from NGK

In this year's report, we have made every effort to provide content that facilitates a greater understanding of NGK Group CSR activities among all our stakeholders by increasing the number of articles showing the faces and introducing the voices of the people engaged in these various initiatives.

We will continue to come together as one Group to succeed amid intense international competition and achieve sustainable growth through the determined practical application of CSR promotion activities and objectives, as well as aggressive initiatives that carefully anticipate the future in these changing times.

Furthermore, as compliance is the basis of CSR activities, each member of the NGK Group will conduct themselves according to global standards for decision-making with a firm awareness of our connection to society, meeting expectations and earning the trust of society through sincere behavior.



Nobumitsu Saji

Director and Vice President
CSR Committee Chairman

Reference Guidelines

Ministry of the Environment's Environmental Reporting Guidelines (2012) and the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines (Version 3.1 and 4.0).

Target Organization

As each example differs, data is presented individually for each article in the report.

Target Period

Domestic activities and data: April 1, 2013-March 31, 2014

Overseas activities and data: January 1, 2013-December 31, 2013

Sections Based on CSR Promotion Actions

NGK clearly states eight actions for promoting CSR defined in the NGK Group Guidelines for Corporate Behavior and establishes targets for each action every fiscal year. Sections in the CSR Report 2014 correspond to these eight actions for promoting CSR, resulting in a report that captures the actual state of NGK's CSR activities.

Web Version Full Report and Print Version

There are two versions of the CSR Report, the web version full report 2014 and the print/web version available for download in PDF format.

The web version includes all content found in this report.

The print version reports on issues that are highly important to society and the NGK Group.

