



**NGK INSULATORS, LTD.**

# 2015

## CSR REPORT

CORPORATE

SOCIAL

RESPONSIBILITY

REPORT

**WEB VERSION**

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## Management's Commitment

Further Strengthening Our CSR  
Initiatives as a Manufacturing  
Company Growing Globally.

*Takuo Oshima*  
President



In fiscal 2014, ended March 31, 2015, 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 inclusion of fourth quarter sales from NGK Electronics Devices, Inc., which became a consolidated subsidiary in January 2015. In the Power Business, sales increased due to the shipment of NAS® battery systems for electric energy storage to a large project overseas. In terms of income, although a provision for losses related to competition laws was recorded as an extraordinary loss, profits increased due to improved operating income.

In each business area, there is a strong potential for achieving medium- to long-term growth, thus we are promoting initiatives aimed at creating new products and businesses. To realize this growth potential amid the expansion of globalization, intensifying competition due to the rise of manufacturers in developing countries and increasing societal demands for management transparency, it is critical that we both create a structure for responding to changes in the environment surrounding NGK and change our own behaviors going forward.

In September 2015, NGK admitted to violating U.S. antitrust laws and other regulations in some business transactions related to automotive catalytic substrates, and accepted a plea agreement.

We deeply apologize for having caused a great deal of concern among our customers, shareholders, investors and everyone involved.

The NGK Group considers legal compliance to be an important management issue. Although we have a compliance structure in place, in recognition of the seriousness of this situation, we will further enhance our compliance structure and conduct thorough training with regard to antitrust and related regulations targeting our Board of Directors and all our employees in an effort to regain stakeholder trust and prevent recurrence.

▶ [Plea Agreement with U.S. Department of Justice concerning ceramic substrates for catalytic converters](#)

## New/Reformed Manufacturing Structures

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New/Reformed Manufacturing Structures innovations promoting the objective of creating resilient and efficient manufacturing sites are focused on the medium- to long-term business environment. To establish competitive capabilities for success in global markets from 2020 onward, we established ambitious “challenge targets,” and launched “new challenge activities” to achieve these targets.

The NGK Group will unite to conduct global initiatives and work together with customers and procurement partners to go

beyond conventional thinking in an attempt to realize increased product value and innovative manufacturing processes.

## Strengthening Head Office Capabilities Underpinning Global Management

Amid accelerating global business development, the head office provides business divisions with highly specialized and strategic support in a desire to reinforce the entire NGK Group. Specific issues refined through detailed discussions, such as the development and utilization of global human resources and responses to increased legal risks, are the focus of activities conducted over a two-year period starting in fiscal 2015 aimed at creating a world-class global company.

## Reinforcing CSR

To maintain the high degree of trust from our stakeholders, I personally visit all business divisions and speak with employees directly to ensure all NGK employees possess a strong awareness of compliance and reinforce the recognition that all our business activities are based on a foundation of safety, environment, quality and CSR. Aiming for high world-class standards, we will further enhance our business, our corporate social responsibility (CSR) and our governance in line with the self-imposed objective of “paying strict attention to on-site operations.” Every person working in the NGK Group will step-up their performance while maintaining a focus on the future as we promote the creation of a vigorous company able to make the most of its overall capabilities.

In April 2015, NGK signed on to the UN Global Compact. As a world-class global company, we will develop business and proactively fulfill our social responsibilities based on international standards for decision-making.

The CSR Report 2015 introduces the NGK Group’s CSR initiatives and target directions in accordance with the Group’s “CSR promotion items.” After reading this publication, we invite you to offer your frank and direct opinions on our initiatives.

### \*The UN Global Compact

The UN Global Compact is a global framework for realizing sustainable growth through companies and organizations acting as good members of society. Participating corporations support ten principles in the areas of human rights, labor, the environment and anti-corruption required in the practice of corporate activities.



Network Japan  
WE SUPPORT

#### The Ten Principles of the UN Global Compact

Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2: make sure that they are not complicit in human rights abuses.
Labor	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; Principle 4: the elimination of all forms of forced and compulsory labor; Principle 5: the effective abolition of child labor; and Principle 6: the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges; Principle 8: undertake initiatives to promote greater environmental responsibility; and Principle 9: encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.



## [Special Feature] New/Reformed Manufacturing Structures Tackling Challenges for 2020

➤ New/Reformed  
Manufacturing Structures

➤ Dialogue

➤ Toward the  
Forefront of Innovation

### New/Reformed Manufacturing Structures Tackling Challenges for 2020



Aiming for Innovative Manufacturing Targeting Medium- to Long-Term  
Growth and Contributions to the Global Environment and Society

## New/Reformed Manufacturing Structures Activities Concept

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Activities consist of “fiscal year improvement activities” involving targets that must be achieved, and “new challenge activities” involving challenge targets.

New challenge activities are initiatives with even higher objectives for achieving ideals and targets defined for each business focused on the 2020 business environment.

## New Challenge Activities Initiative Perspectives

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Initiatives for further technological advancements, improved product quality and profitability

Global initiatives unifying Group companies in Japan and overseas

Wide-reaching initiatives involving customers and suppliers

New, imaginative initiatives utilizing advanced case studies and external information and resources

- ▶ [Dialogue: New Manufacturing Structural Innovation Initiatives](#)  
[Launching New Manufacturing Initiatives to Contribute to the Global Environment and Society](#)

## [Special Feature] New/Reformed Manufacturing Structures Tackling Challenges for 2020

> New/Reformed  
Manufacturing Structures

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> Toward the  
Forefront of Innovation

Dialogue

### New/Reformed Manufacturing Structures Initiatives

#### Launching New Manufacturing Initiatives to Contribute to the Global Environment and Society

What is NGK aiming for with its new/reformed manufacturing structures? How can new manufacturing initiatives contribute to the global environment and society?

Four key personnel discuss NGK's medium- to long-term vision and their thoughts on manufacturing.



Director and Senior Vice President  
Group Executive,  
Electronics Business Group  
**Shuhei Ishikawa**

Our ultimate mission is to realize manufacturing technology innovation that provides people throughout the world with a more comfortable lifestyle.

Considering that NGK's HONEYCERAM® ceramics for automobile exhaust purification protect the global environment, I want to advance manufacturing technologies even further.

Vice President General Manager,  
Manufacturing Division,  
Ceramic Products Business Group  
**Hiroto Matsuda**



Director and Vice President  
Group Executive, Corporate  
Manufacturing Engineering  
**Chiaki Niwa**

We aim to build plants that contribute to environmental conservation during the manufacturing process through the introduction of the most advanced energy conservation and automatization technologies that will raise energy efficiency and productivity.

We are working towards a society with a low impact on the environment by enhancing the product value of NAS® battery systems for electric energy storage to enable more efficient energy utilization, thereby improving our social environment.

Toshiyuki Mima  
Vice President, General Manager,  
NAS Battery Division,  
Power Business Group



## Aiming for Ideals and Targets Focused on 2020

**Niwa:** New/reformed manufacturing structures involve engaging in new challenging activities aimed at achieving ideals and targets defined by each business division by the year 2020. The mission is to establish NGK Group competitiveness over the medium to long term. What is the status of the targets and initiatives in the divisions you manage?

**Ishikawa:** The Electronics Business Group's New Metals Division aims to establish a position of solid leadership in the market and is utilizing big data as one means to this end. We think analyzing big data acquired from copper alloy strip production processes will enable more efficient and stable production of products with higher quality and high added value.

**Matsuda:** The Ceramic Products Business Group aims to become the top supplier of honeycomb ceramics. NGK products account for a large share of the global market, so production that is more efficient and sophisticated will lead to significant merits for the NGK Group as well as the global automotive industry. Deploying production processes established at our mother plant in Japan aimed at saving energy, space and manpower to all production bases worldwide will strengthen our global competitiveness.

**Mima:** The Power Business Group's NAS Battery Division aims to become the leading company in large-capacity electricity storage batteries. With a large capacity suited for long-duration storage, NAS batteries are gaining attention as storage batteries able to provide a stable supply of power promoting the introduction of renewable energy. Enhanced cost competitiveness is indispensable for the expanded adoption of NAS batteries. Development, design, procurement and production all face a multitude of issues, so we are tackling the challenge of a multipronged and aggressive target.

**Niwa:** The Corporate Manufacturing Engineering's Construction & Maintenance Department aims to become the top engineering group in the manufacturing of ceramics. Our goal is to raise energy efficiency and human productivity by 200% compared to existing plants-twice that of current levels?and we are considering the construction of a model plant introducing the most advanced energy conservation and automatization technologies. Furthermore, to enable the appropriate management of production, we are incorporating the latest information technologies into our existing production management system to gain feedback based on the real time analysis of energy consumption, production status and other data while at the same time engaging in "Visualization" initiatives.

## Our Ultimate Mission is to Contribute to a Better Social Environment

**Matsuda:** New/reformed manufacturing structures also consider the perspective of contributing to the environment and society through technological advancements and enhanced product value indispensable. HONEYCERAM® is useful for preventing air pollution, so we can say that this product itself contributes to environmental conservation. Considering that products created by NGK are used in cars around the world and protect the global environment, as someone involved in manufacturing, I feel that we must pursue further technological advancements.

**Ishikawa:** Our corporate philosophy is "NGK products and technologies must create new value and contribute to the quality of life," thus I think this is truly the number one goal of new/reformed manufacturing structures. Contributing to a better social environment involves improving a variety of environments surrounding humans. Providing the world with a more comfortable lifestyle through technological innovations in manufacturing is our ultimate mission.



**Mima:** At present, the Japanese government is promoting the introduction of renewable energy and is engaged in a variety of initiatives aimed at the realization of a hydrogen society. Large-scale batteries are necessary to efficiently use unstable renewable energy and achieve a balance between energy demand and supply?this is where NAS batteries can display its true capabilities. I want NGK to contribute to the realization of a society with a low impact on the environment through new/reformed manufacturing structures that will enhance NAS batteries as a product contributing to a better social environment.

## **Manufacturing Innovations Cultivating the Next-Generation of Human Resources**

**Mima:** Skilled people are the key to further advancements in automatized and labor-saving manufacturing processes. As manufacturing technologies become increasingly advanced, the skills demanded of people also increase, raising the importance of passing on knowledge from one generation to the next. Thus, new/reformed manufacturing structures also aim to cultivate human resources.

**Matsuda:** Cultivation of human resources able to support global manufacturing systems is also a critical issue for the ceramics business. At production bases in developing countries in particular, there is a tendency toward employee attrition, so fostering motivation in each individual employee and creating a human resources structure that promotes the advancement of local employees is also a critical factor.

**Niwa:** We will cultivate the next-generation of human resources through new/reformed manufacturing structures. The entire NGK Group will come together to take on challenges to be achieved by the year 2020 with the aim of realizing growth through businesses that contribute to the environment and society./p>

- ▶ [Toward the Forefront of Innovation](#)  
[The Global Spread of Manufacturing and Personnel Training](#)

## [Special Feature] New/Reformed Manufacturing Structures Tackling Challenges for 2020

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> Toward the  
Forefront of Innovation

### Toward the Forefront of Innovation The Global Spread of Manufacturing and Personnel Training

People develop technology, and technology develops people.  
The virtuous cycle of manufacturing is spreading globally.

With the launch of new/reformed manufacturing structures, young employees at bases in each global region are taking on new challenges. Experiences of success when taking on difficult issues are spreading globally, ushering in the next-generation of manufacturing. This section introduces leading-edge NGK Group innovations led by individual employees.

### Manufacturing Innovations Promoted at Bases in Each Global Region

CHINA

#### Improving Productivity and the Global Environment with Databases

NGK CERAMICS SUZHOU CO., LTD.

Huang Xiaoxin



At NGK's production base for automotive exhaust purification ceramic products in China, my job is to propose more efficient production conditions using a database to "visualize" information related to personnel, equipment, raw materials and processes. The completeness, accuracy and timeliness of data are critical to compiling information in a database. To ensure these conditions, I not only collect data, but must also increase awareness among relevant personnel and build the management system necessary for the data. I want to improve the NGK Group product efficiency by incorporating improvement case studies from overseas NGK Group companies and sharing our own improvement case studies. I want to contribute to global environmental conservation through my work to increase the productivity of automotive exhaust purification ceramic products.

**POLAND**

## Pursuing Energy Conservation to Reduce Impacts on the Environment

NGK CERAMICS POLSKA SP. Z O.O.

**Kazuaki Matsumoto**



Ceramics are pottery, so firing and drying account for more than half the energy used. My mission is to search for new manufacturing approaches that would address these processes. Specifically, I am promoting initiatives for the maximal plant-wide reuse of mid- to low-temperature waste heat from kilns and other equipment. At present, I am conducting surveys, analyzing data and submitting effective usage proposals regarding energy consumption and waste heat. This will become foundational data used in the energy-conserving design for a new automotive exhaust purification ceramics plant to be constructed in Poland. There are all sorts of ideas in energy conservation. As I move forward with surveys and analysis to discover energy-saving techniques ideal for a mass-production ceramics plant, I feel this fleshing-out process is extremely worthwhile.

## Japanese Innovation Will Create New Value

**JAPAN**

## Creating the Future Global Environment with Zero Worker Plants

NAS Battery Division, Power Business Group

**Yukihito Tsuchiya**



To reduce NAS battery costs, we are promoting automatization of manufacturing processes with the aim of creating zero-worker plants. Leaving simple tasks to machines and shifting humans to high-value-added work to increase productivity is the aim of the zero-worker movement. One step in that direction currently involves initiatives to automate manual labor in the manufacturing process, including the application of multiaxial, robot-controlled 3D vision and high-output laser markers among other new devices. There is no end to the challenges we are taking on, including IoT\* initiatives involving the centralized management of facilities equipped with networks through data communications. The spread of NAS batteries due to reduced costs promotes the use of renewable energy, creating a better global environment. I am proud of the work we are doing for the future.

\* Internet of Things



JAPAN

## Manufacturing Innovations Using Big Data

New Metals Division, Electronics Business Group

**Nobuaki Nakayama**



Last year, I returned to Japan after working for seven years at the New Metals Division production base in France. Waiting for me was work that excites the engineer's spirit: manufacturing innovation using big data. The manufacturing worksite involves more than a few conditions that cannot be quantified accurately. For example, metallic material heat treatment. Although conditions are supposed to be identical, small fluctuations in temperature and line speed cause characteristic deviations. Nor can we ignore discrepancies in previous operational conditions. Use of this accumulated chain of data is linked to the stabilization of quality. Up to now, we have analyzed data from hundreds of samples, but the use of big data will enable us to analyze 10?100 times more data. The discovery of unexpected data unnoticed until now will likely lead to significant improvements. An unexplored world is coming into view through the perspective of big data usage. This presents significant possibilities and importance for those of us creating new manufacturing structures.

## Corporate Governance

NGK is conducting measures to expand and strengthen its corporate governance to increase corporate value with the intent of becoming a company trusted by all its stakeholders.

 [Corporate Governance Report\(PDF:268KB\)](#)

## Basic Policies

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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 corporate 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.

In recognition of needs to execute swift and optimal decision making and respond 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.

Furthermore, to strengthen the Board of Director supervision and monitoring functions, major committees among those tasked with mitigating the various risks surrounding NGK are obligated to report to the Board of Directors, NGK established new committee structures, including a Nomination and Compensation Advisory Committee, a Management Council, External Director Meetings and a Management Ethics Committee, etc., to realize a more comprehensive corporate governance structure.

## Corporate Governance

### Corporate Governance Enhancement

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Ongoing structural enhancements aimed at strengthening corporate governance include the introduction of a corporate officer system and an external director system to improve the management supervision and monitoring functions and facilitate recommendations with respect to overall management.

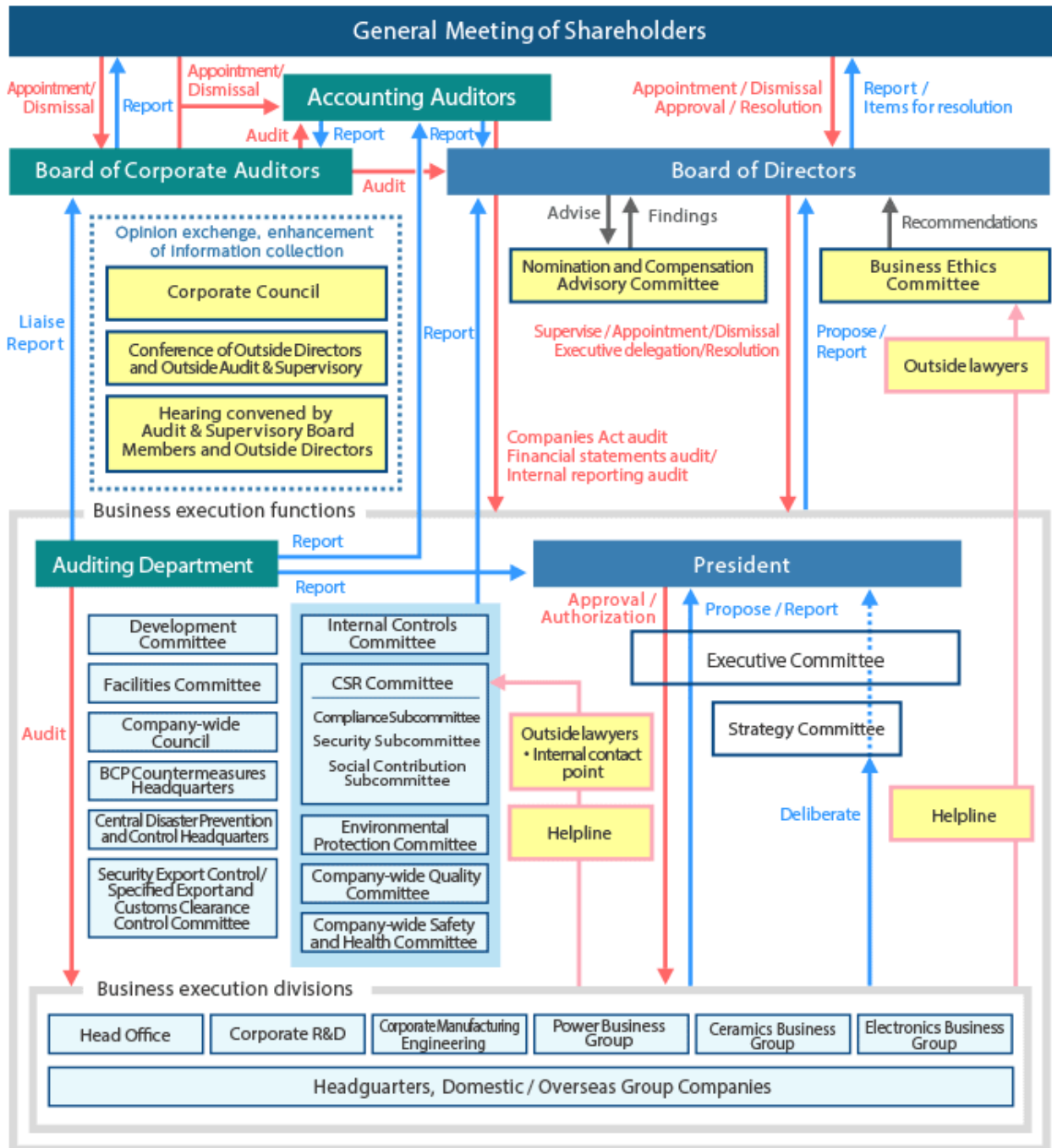
April 1999	Formulated Guidelines for Corporate Behavior
April 2003	Revised to NGK Group Guidelines for Corporate Behavior
June 2005	Introduced a corporate officer system
	Introduced a stock option system
	Introduced an external director system
July 2005	Established the CSR Committee
April 2007	Established the CSR Promotion Office
June 2010	Appointed independent corporate officers
July 2011	Major revision to NGK Group Guidelines for Corporate Behavior
April 2015	Signed on to UN Global Compact
June 2015	Established Global Compliance Office
December 2015	Established new committee structures



# Corporate Governance

## Corporate Governance Scheme

To ensure lawful business activities and management transparency, respond quickly to changes in the management environment, and create and maintain a fair management system from the shareholders' perspective, NGK has created the following systems:



# Corporate Governance

## Corporate Governance Promotion Structure

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### Business Execution Status

Regarding business execution based on the Board of Directors resolutions, the president presides over company business as the chief executive of business execution. The Executive Committee holds discussions to assist the president's decision-making with respect to important matters regarding business execution.

In addition, the Board of Directors ask for proactive recommendations for management by external directors pertaining to management-related issues at Corporate Council meetings to facilitate an exchange of opinions between external directors and representative directors.

### Monitoring Status

In line with monitoring policies and plans defined by the Audit & Supervisory Board, audit & supervisory board members make an effort to collect information through Hearing convened by Audit & Supervisory Board Members and Outside Directors, etc., in an attempt to communicate with directors and employees while monitoring director business execution by attending Board of Director and Executive Committee meetings. At Audit & Supervisory Board meetings attended by outside audit & supervisory board members, accounting auditors and Internal Auditing exchange information in an attempt to facilitate mutual cooperation.

### Election of Corporate Officers

Director candidates are determined by Board of Director resolution and appointed by resolution at the General Meeting of Shareholders. Audit & supervisory board members candidates are determined by Board of Director resolution with approval from the Audit & Supervisory Board and appointed by resolution at the General Meeting of Shareholders.

Moreover, with respect to the appointment of directors, the Nomination and Compensation Advisory Committee, consisting of a majority of external directors, deliberate matters related to board member and corporate officer appointments, Chief Executive Officer succession planning and other matters, the results of which are reported to the president in an effort to ensure fairness and improve transparency when making director appointments and remuneration decisions. Also, to further clarify the directors' mission and responsibilities, the term of office for directors is one year.

### Director Training

Newly appointed representative directors, directors and corporate officers are provided with training conducted by attorneys in the United States and Japan related to the Companies Act and the Competition Law, conducted at the time of their appointment. In addition, each year lectures are held targeting all corporate officers, including directors related to compliance with the Competition Law, focused on the expanding scope of Competition Law enforcement and practical business risks.

In July 2015, a hearing was conducted presenting the opinions of outside experts regarding societal demands related to corporate governance.

In addition, with regard to external directors, we provide individual explanations concerning mainly Board of Director meeting proposals facilitated by personnel from relevant business divisions, as well as regular opportunities for the provision of information and exchange of opinions pertaining to business environment and related issues.

▶ [To learn about the policies on the training, please see the following:](#)

Board of Directors	The Board of Directors, comprising 12 members, deliberates matters prescribed in the Companies Act, as well as other important management issues, providing oversight for the execution of duties by directors. To clarify the division of roles between execution and monitoring of management, Board of Director meetings are led by a Chairman who, in principle, does not execute business. The Board of Directors includes the appointment of two external directors to create a system enabling management monitoring based on professional knowledge and decision-making from a wider perspective.
Audit & Supervisory Board	The Audit & Supervisory Board consists of four members, each of whom attend Board of Directors meetings and conduct other activities to audit the execution of duties by directors. The Audit & Supervisory Board includes the appointment of two outside audit & supervisory board members, each possessing significant business experience. One of our standing outside audit & supervisory board members has many years of operational experience in financial institutions possessing a considerable degree of financial and accounting knowledge enabling him to conduct monitoring effectively.
Executive Committee	Comprising the President, directors, audit & supervisory board members and executive officers and division heads designated by the president, this body deliberates the matters necessary to help 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"> <li>1. Revision or abolition of basic policies related to the observance of laws, regulations and corporate ethics, including the Guidelines for Corporate Behavior.</li> <li>2. Determination of systems, structures and strict observance of important activities pertaining to laws, regulations and corporate ethics company-wide.</li> <li>3. Determination, revision or abolition of risk management structures pertaining to laws, regulations and corporate ethics.</li> </ol> <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"> <li>1. Revision or abolition of Company-wide Quality Policy and Objectives</li> <li>2. Items pertaining to the prevention of serious quality defects in the market and technological responses after occurrence</li> <li>3. Other quality-related matters determined to be important</li> </ol>
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"> <li>1. Determines reporting scope of same reports this fiscal year, evaluation and reporting schedules, evaluation standards relating to internal controls and other basic matters</li> </ol>

	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.



# Corporate Governance

## New Committee Structures

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NGK INSULATORS, LTD., has further strengthened and enhanced its corporate governance structures by establishing new committees to bolster the supervision and monitoring functions of the Board of Directors.

- ▶ [Strengthening the Corporate Governance Structures --Establishment of New Committees and Expansion of the Whistle-blowing System](#)

### Business Ethics Committee

Comprised of external directors and one internal director responsible for compliance, this committee monitors for fraud or illegalities involving senior management, as well as for compliance with the Competition Law and the Foreign Corrupt Practices Act, and reports directly to the Board of Directors. As a mechanism to prevent fraud or legal violations, in addition to the existent Helpline, an [internal reporting system \(Hotline\)](#) linked directly to external directors was established with the aim of strengthening NGK's compliance structure.

### Corporate Council

The meeting enables external directors to exchange opinions with representative directors and other corporate officers when proactive recommendations for senior management are sought from external directors regarding various management-related issues.

### Nomination and Compensation Advisory Committee

Comprising a majority of external directors, this committee attempts to ensure fairness and increase transparency related to determining the appointment and remuneration of officers by deliberating matters related to the appointment and remuneration of board members and corporate officers, Chief Executive Officer succession planning and other matters, the results of which are reported to the Board of Directors.

### Conference of Outside Directors and Outside Audit & Supervisory Board Members

Comprised exclusively of external directors, these meetings facilitate an exchange of opinions regarding NGK management issues, with the intent of proactively contributing to discussions at Board of Director meetings.

### Hearing convened by Audit & Supervisory Board Members and Outside Directors

Comprised of corporate auditors and external directors, these hearings gather information from internal sources regarding the business environment and issues surrounding NGK.

- ▶ [Corporate Governance Scheme](#)

# Corporate Governance

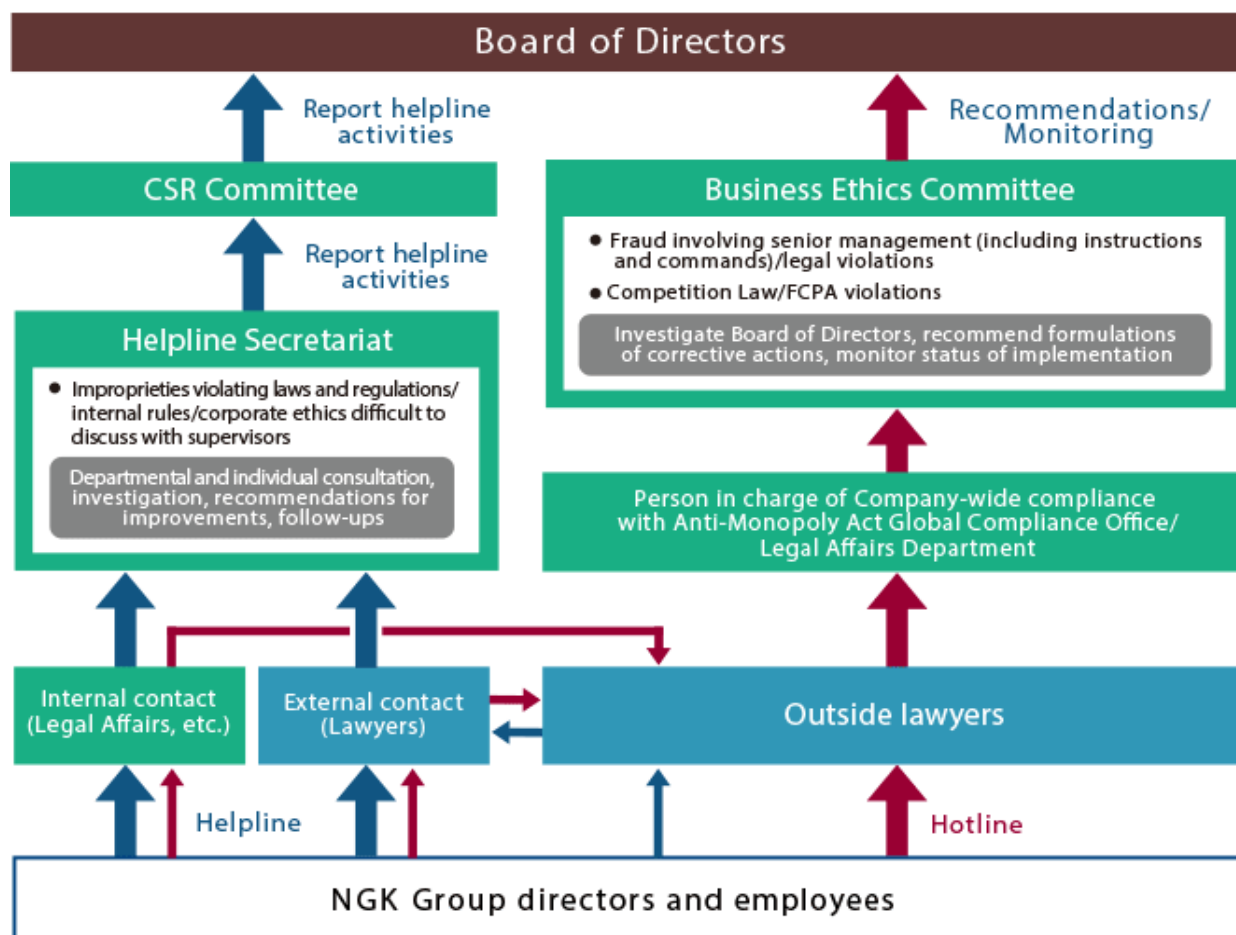
## Whistle-blowing System

### Helpline Establishment

We established a helpline to receive inquiries and reports from employees aimed at curtailing and preventing activities contrary to the spirit of the NGK Group Guidelines for Corporate Behavior and to facilitate the quick resolution when issues occur. Each overseas Group company has its own helpline. Those seeking advice or reporting issues are promised protection under corporate regulations.

### Hotline Establishment

We established a hotline as an internal control system for responding to fraud and legal infractions committed by senior management, including Competition Law and Foreign Corrupt Practices Act violations. The hotline is operated by outside lawyers, with issues handled by the Management Ethics Committee, composed mainly of external directors, who report directly to the Board of Directors.



# Corporate Governance

## Support for the Corporate Governance Code

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In accordance with the basic principles of the Corporate Governance Code mandated by the Tokyo Stock Exchange, NGK's implementation status is as follows:

### Disclosure based on each principle of the corporate governance code

#### ▶ [Principles 1-4. Policy regarding strategic holdings and criteria for the exercising of voting rights related to strategic shareholdings](#)

NGK maintains ongoing policies to hold listed shares that contribute to long-term business development aimed mainly at maintaining and strengthening business relationships.

Shares in the Morimura Group, established by a common founder, are held with the intention of enhancing Group brand value. This will contribute both to initiatives aimed at mutual improvements in management quality and industrial developments focused on ceramics.

The significance of holding strategic shares, as well as share prices, dividend yields, ratings and other details, are regularly confirmed at Board of Director meetings to determine whether to maintain these holdings. Concrete explanations are provided regarding the aim and rationale of holdings in the Securities Report.

Regarding the exercise of voting rights pertaining to strategic shareholdings, rights are exercised on the basis of whether management places importance on improving corporate value in the held company and increasing shareholder profits, from both a medium- to long-term perspective as well as the point of view of agenda item details that do not impair shareholder profits.

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#### ▶ [Principles 1-7. Procedural framework regarding transactions between related parties](#)

Regarding transactions with directors and corporate officers, the NGK Board of Directors approve items in accordance with procedures related to conflict-of-interest transactions defined in the Companies Act. At Board of Director meetings, which include independent external directors, discussions and determinations are conducted from the perspective of whether transaction details and terms are appropriate, and whether or not there will be any adverse impacts on the company. The main details of transactions are disclosed in business reports and the Securities Report. Regarding transactions with corporate auditors, at present no such matters have been approved by the Board of Directors, however these will be handled as matters for approval going forward. Regarding transactions with major shareholders, although at present we do not foresee such transactions, as above, these will be handled as matters for approval by the Board of Directors.

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#### ▶ [Principles 3-1. Enhanced information disclosure](#)

##### **1. Company aims (corporate philosophy, etc.), management strategy and management planning**

NGK's corporate philosophy states "NGK products and technologies must create new value and contribute to the quality of life." Management strategy and planning are disclosed in our Consolidated Financial Results as well as on our company website.

##### **2. Basic stance and policies regarding corporate governance**

[Please see here for details regarding NGK's basic stance on corporate governance.](#) Furthermore, NGK's basic policies on corporate governance are as follows:

**(1) Maintaining shareholder rights and equality**

NGK observes suitable procedures related to the execution of rights by shareholders, and provides information sufficient in quality and amount to explain to shareholders through the timely and appropriate disclosure of information to substantially ensure shareholder rights, including voting rights at the general meeting of shareholders.

**(2) Appropriate cooperation with stakeholders other than shareholders**

NGK attempts to create corporate value over the medium- to long-term and realize sustainable growth through the proactive promotion of appropriate cooperation with a variety of stakeholders, including employees, customers, suppliers, creditors and regional societies based on our corporate philosophy.

**(3) Ensuring transparency and appropriate information disclosure**

Aware that the appropriate disclosure of information ensures corporate management transparency, as well as contributes to improved corporate governance, NGK proactively disseminates information pertaining not only to the company's financial condition, management performance and other financial information, but also information about management strategies and issues, risk, corporate governance and other non-financial issues.

**(4) Duties of Board of Directors, etc.**

Based on an awareness that the main duties of the Board of Directors is to indicate basic management policies and supervise and monitor business execution by directors, NGK makes maximum use of various committees involved in business execution and advisory committee members comprised mainly of external directors to ensure directors are sufficiently meeting their responsibilities.

**(5) Dialogue with shareholders**

Based on the recognition that constructive dialogues with shareholders are important to realize sustainable growth and increased corporate value over the medium- to long-term, NGK makes best effort to provide effective feedback to management related to the opinions and concerns of shareholders through sincere responses to shareholder inquires in conjunction with the relevant departments as necessary.

**3. Policies and procedures for Board of Director determination of senior management and director remuneration**

**(Policies)**

With the aim of providing motivation to realize NGK's corporate philosophy and management policies, as well as heighten the transparency, fairness and clarity of director responsibilities, director (excluding external directors) and corporate executive remuneration is comprised of three components (1) a level-based, fixed annual salary as basic remuneration, (2) an annual performance-based bonus to heighten the connection to company performance and further clarify the fulfillment of responsibilities by each director, and (3) stock-related remuneration to boost motivation and morale aimed at enhancing corporate value over the medium- to long-term through proper company management, by sharing the shareholders' risk of declines as well as the merits of stock price increases and increasing sensitivity to NGK share prices. In terms of the ratio of fixed annual remuneration to variable remuneration, from the perspective of emphasis on maintaining and improving performance over the medium- to long-term, NGK sets the performance-based variable remuneration at an appropriate level.

External directors and corporate auditors receive only basic remuneration based on their supervision of management from an independent perspective and role as monitors; no performance or share price-based remuneration is provided. In terms of amounts, resolutions at the regular general shareholders meeting held in June 2007, excluding stock-related remuneration, namely stock options, capped annual compensation for directors at 800 million yen and external director compensation was capped at 30 million yen per year. Similarly, resolutions for director (excluding external director) stock options were limited to 200 million yen or less per year, while corporate auditor remuneration, etc., was capped at 100 million yen per year.

**(Procedures)**

Resolution of annual remuneration amounts including bonuses for each director and corporate officer is entrusted to representative directors at Board of Director meetings and determined in consultation with them. In terms of specific procedures, the basic remuneration is determined by considering corporate performance and the level of remuneration within the similar industry, with the amount set according to position or rank. Performance-based bonuses, which are annual bonuses, are determined based on management indicators and increases/decreases in performance, including



annual consolidated operating margins, consolidated sales and consolidated ROE. In terms of stock-related remuneration, as a long-term incentive, the allotment of stock remuneration-type stock options with a strike price of 1 yen per share are determined in accordance with position or rank. In principle, conditions determining the exercise of stock options stipulate that stock options can be exercised starting one year after a director's resignation for no longer than a period of five years. The amount of remuneration for each corporate auditor is determined by discussion by corporate auditors. The determination of procedures and basic policies related to remuneration are deliberated at the Advisory Committee involved in remuneration, which comprises mainly external directors. By reporting results of the deliberation to the Board of Directors, NGK aims to ensure fairness and improve transparency.

#### **4. Policies and procedures for appointing director and corporate auditor candidates and Board of Director selection of management team**

##### **(Policies)**

NGK is a manufacturer in the business of providing ceramics and other materials and related products to a variety of industries in a wide range of areas in and outside Japan. The management team, directors and corporate executives responsible for business execution, are required to engage in business judgments and decision-making based on individual knowledge pertaining to each NGK business area, production technologies and research and development, as well as financial, legal and labor-related knowledge. Similarly, standing corporate auditors are also required to conduct monitoring based on a specialized knowledge of finance, etc., and knowledge gained through individual business experience. Accordingly, candidate nominations place importance on practical experience with production technologies, research and development, sales and planning, etc., as well as leadership and financial, legal and labor-related knowledge. External director and external corporate auditor candidates are nominated for their high degree of specialization in law, corporate finance and other areas, as well as knowledge related to international affairs, and social and economic trends. In accordance with NGK's Articles of Incorporation, the total number of directors is limited to 15 or less.

##### **(Procedures)**

To ensure fairness and transparency, the selection of directors is proposed to the Board of Directors after discussions are held by all presidents regarding each candidate. To ensure the independence of candidates for corporate auditor, in addition to a discussion by all representative directors, the approval of the Board of Corporate Auditors is also sought. Furthermore, director and corporate auditor candidates are voted on by the Board of Directors as general meeting of shareholder objective items (agenda items). Nomination and Compensation Advisory Committee comprised of a majority of external directors involved in appointments discusses the selection of candidates and appointment policies, the results of which are reported to the Board of Directors in best effort to improve transparency and further ensure fairness.

#### **5. Explanation regarding individual nomination and appointment when appointing director and corporate auditor candidates and Board of Director selection of management team**

The reasons for appointing director and corporate auditor candidates are as follows:

**Eiji Hamamoto** : Mr. Hamamoto possesses a wide range of experience in finance, accounting, human resources and other management divisions, was involved in the management of an overseas subsidiary and has served as the General Manager of NGK's core businesses, including the Power Business Group and Electronics Business Group. Mr. Hamamoto's nomination as a director candidate reflects his knowledge related to management overall and an international perspective based on an abundance of business experience at NGK.

**Taku Oshima** Assigned to the production technologies division after joining NGK, Mr. Oshima was involved in the launch of a production line at an overseas subsidiary. He was also involved with the inception of NAS (sodium sulfur) battery mass production, engaged in design, production, market cultivation and other duties as the General Manager of the world's first large capacity storage battery business division, establishing it as NGK's core business. In view of his experience, Mr. Oshima was appointed as a director candidate with the expectation that he will continue to drive NGK's business going forward.

**Yukihisa Takeuchi** : Mainly assigned to the R&D Division, Mr. Takeuchi led the development of piezoelectric micro-actuators, which were commercialized and established as a core product, and possesses management experience as a division general manager. In addition, he engaged in new product development in areas including energy, ecology and electronics, as well as ceramics fundamental research as General Manager of the R&D Division. He was appointed as a director candidate for his wide ranging knowledge of divisional management and technological areas.

**Susumu Sakabe** : Since joining NGK, Mr. Sakabe has worked mainly in the Finance Division, with experience in domestic and overseas subsidiary administration, including positions as the General Manager of the Division Planning and Finance departments. He has been engaged in the revision of internal rules pertaining to accounting and taxation and structural reorganization, as well as dialogues with investors. He was appointed as a director candidate for his abundant experience and knowledge relating to finance.

**Hiroshi Kanie** : Engaged in Industrial Process Division sales and corporate planning, Mr. Kanie also has experience in head office management as the secretarial office manager. Currently, he is leading the management of NGK's largest business, the Ceramics Business Group, and was appointed as a director candidate for his wealth of experience in that business as well as for his network of contacts within and outside the company.

**Ryohei Iwasaki** : After involvement in Ceramics Business Group sales, Mr. Iwasaki ran an overseas subsidiary, managed the Corporate Strategy Office and was the General Manager of the Electronics Business Group, accumulating a diverse range of practical experience related to business management. He was appointed as a director candidate due to the corporate management knowledge he has gained through these experiences.

**Hideaki Saito** : Since engaging in Industrial Process Division sales upon joining NGK, Mr. Saito has held several management positions including The Worker's Union Central Executive Committee Chairman and Power Business Group Sales Manager. Currently, in charge of Power Business Group management, he was appointed as a director candidate for his deep network of personal contacts within and outside Japan as well as his wealth of knowledge in business.

**Shuhei Ishikawa** : Having been engaged in technology and development in the Metals Division since joining NGK, Mr. Ishikawa is knowledgeable about production technologies and new product development in this division. Having served as a department head in the Metals Division, he currently leads the Electronics Business Group management, and was appointed as a director candidate due to his vast knowledge of the electronics industry.

**Nobumitsu Saji** : With a variety of business experience gained in Power Business Group sales, the Finance Department, overseas subsidiaries and positions in outside organizations, Mr. Saji managed the Planning Division of Power Business Group as well as the Legal Department. At present, he is engaged in research focused on the international competitive investigation under the supervision of an independent committee. He was appointed as a director candidate because of his position as a leader of NGK's legal and compliance having jurisdiction over legal and compliance-related departments.

**Chiaki Niwa** : With a long history in the Engineering Division (now spun off as a separate company) and Plant Technology Department within the Industrial Process Division, Mr. Niwa is currently in the role of leading Company-wide manufacturing as the head of the Production Technology Division. He was appointed as a director candidate due to his substantial knowledge related to project management and production technologies.

**Hiroyuki Kamano** : Engaged in a legal practice focused on corporate international business development as an attorney for many years, and serving as the vice-chairman of the Tokyo Bar Association, Mr. Kamano has a wealth of experience and success in the legal profession. He was appointed as an external director candidate with the expectation that he will strengthen NGK's corporate governance and compliance systems through recommendations on overall management drawing on his professional experience in Japan and overseas.

**Toshio Nakamura** : Having served as Ministry of International Trade and Industry (now Ministry of Economy, Trade and Industry) Trade Director and Small and Medium Enterprise Agency Secretary, at present, Mr. Nakamura is an Executive Director at the Tokyo Chamber of Commerce and Industry, and has for many years served in key positions that contributed to the promotion of commerce and industry. Mr. Nakamura was appointed as an external director candidate based on the expectation that he will provide recommendations on all NGK management issues utilizing substantial experience and wide-ranging knowledge accumulated throughout his career.

**Takeyuki Mizuno** : With business management experience focused on manufacturing, Mr. Mizuno was involved in the establishment of the Ceramics Division for Semiconductor Manufacturing Equipment after being engaged in technological development in the Ceramics Business Group. He also has many years of experience in the Manufacturing Technologies Division, the Company-wide Quality Committee and the Company-wide Environmental Committee. He was appointed as a corporate auditor candidate in consideration of knowledge gained through these positions as well as his ability to monitor NGK business management.

**Ken Sugiyama** : Since joining NGK, Mr. Sugiyama spent many years in the Finance Department, where he served as General Manager. In addition to involvement in the business management of an overseas subsidiary, he also has experience as head of the Auditing Department. He was appointed as a corporate auditor candidate in consideration of his monitoring abilities and his wealth of knowledge and experience related to financial accounting and business auditing.

**Setsuo Tanaka** : After serving various management positions in the police department including as chief of police, Mr. Tanaka was appointed as an external corporate auditor candidate with the expectation that he will offer recommendations on overall NGK management issues from the perspectives of risk management and proper business practices utilizing his wealth of experience and achievements in public administration.

**Ichiro Terato** : Having served as a Senior Managing Executive Officer at The Bank of Tokyo-Mitsubishi, Ltd. (now The Bank of Tokyo-Mitsubishi UFJ) and as a Director and Executive Vice President at the Nikon Corporation, Mr. Terato was appointed as an external corporate auditor candidate based on the expectation he will provide recommendations on all NGK management issues utilizing his wide-ranging knowledge and vast experience as a corporate management professional accumulated throughout his long career as a corporate manager.

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▶ **Supplemental principles 4-1 (1). Summary of scope of senior management delegation**

The NGK Board of Directors deliberate and determine matters prescribed to be resolved legally by the Board of Directors, as well as the importance and disposition of items corresponding to these matters as items appropriate for resolution at Board of Director meetings. The Board of Directors discuss management planning formulation and management strategies required to establish strategic direction in order to realize NGK's corporate philosophy, which is delegated to NGK senior managements who determine business-related matters based on this policy.

Items deliberated and determined by the Board of Directors are explicitly defined in NGK's Articles of Incorporation and the regulations governing the Board of Directors. These mainly pertain to Company-wide overall budgeting, corporate dissolution, mergers, alliances and other strategic planning, share handling regulations, general meeting of shareholder convocation notices, the appointment and dismissal of presidents, approval of financial statements and business reports, the disposal and acquisition of important financial assets (long-term holdings of marketable securities, property, equipment, etc.), the appointment and dismissal of key employees and the establishment or restructuring of key organizational structures.

NGK introduced a corporate officer system in an attempt to achieve prompt decision-making by separating the management decision-making and business execution functions. For matters other than the above, senior managements

make decision based on a separately prescribed administrative authority chart.

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▶ **Principles 4-9. Criteria for determining independence of independent external directors**

In addition to the treatment of external directors under the Companies Act, as well as the requirements for external directors as established by the Tokyo Stock Exchange, NGK assumes that directors meeting any of the following conditions are not able to be considered as independent and external directors (hereinafter, "independent external directors"). However, even if any of these conditions apply to a person, NGK will consider them to be appropriate as an independent external director in light of their character or insights, sufficiently meeting the requirements for an external director under the Companies Act and an independent director as defined by the Tokyo Stock Exchange. These persons are able to become independent external directors on the condition that a public explanation is provided as to the reasons they are thought to be appropriate as an NGK independent external director.

Within this determination criterion, managing director means company managing directors, executive officers and corporate officers as well as managers and other employees, and NGK Group means NGK and its subsidiaries and affiliated companies.

1. Major shareholders, who at present possess 10% or more of ownership voting rights in NGK. If major shareholders are corporations, the managing directors of such corporations employed during the three most recent fiscal years.
  2. Current managing directors of suppliers with whom transactions account for 2% or more of consolidated net sales of either the supplier or NGK Group in any of the last three fiscal years, including the most recent.
  3. Managing directors employed during the three most recent fiscal years at financial institutions or other corporations that are major creditors upon which NGK depends and for which there are no alternatives and are indispensable in terms of NGK Group fund procurement.
  4. Current directors or officers employed during the three most recent fiscal years at organizations receiving annual contributions or assistance from NGK Group in amounts exceeding 10 million yen or 30% of average annual expenses, whichever is larger.
  5. Certified public accountants, tax accountants or members of auditing firms or tax accountancies employed by NGK Group as accounting auditors or accounting advisors during the three most recent fiscal years.
  6. Attorneys, certified public accountants, tax accountants or consultants other than those mentioned above who during any of the three most recent fiscal years including last fiscal year has obtained annual profit of 10 million yen or more in cash or other financial assets from NGK Group apart from officer remuneration, or who are members of law offices, auditing firms, tax accountancies, consultancies or organizations providing advice other than those mentioned above who during any of the three most recent fiscal years including last fiscal year have received 2% or more of consolidated total sales payments received from NGK Group.
  7. Managing directors during the last three fiscal years including the most recent fiscal year of companies for which NGK is a major shareholder at present.
  8. Relatives, including the spouse, parents, relative in the second degree or offspring of anyone indicated in 1-7 above.
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▶ **Supplemental principles 4-11 (1). Stance regarding scale, diversity and balance of knowledge, experience and abilities for Board of Directors as a whole**



NGK's Board of Directors is comprised of individuals who possess practical experience and leadership in each of our business areas, including manufacturing technologies, research and development, sales and planning, as well as financial, legal and labor-related knowledge. The Board also includes individuals from outside the company who are highly independent and possess a high degree of specialization in law and corporate finance as well as knowledge pertaining to international affairs, and social and economic trends. In accordance with the Articles of Incorporation, the number of directors is limited to 15 people. NGK recognizes that the promotion of women and foreigners is an important issue to be examined from the perspective of being necessary for the expansion of business going forward.

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▶ **Supplemental principles 4-11 (2). Director and corporate auditor concurrent appointment as directors at other listed companies**

Every year, NGK discloses the status of concurrent appointment of the Company's directors and corporate auditors at other companies in general meeting of shareholder convocation notices, Securities Reports and reports pertaining to corporate governance.

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▶ **Supplemental principles 4-11 (3). Summary of analysis and assessment results pertaining to the efficacy of the Board of Directors**

It is assumed that NGK's Board of Directors functions effectively, engaging in lively discussions and conducting proceedings appropriately in accordance with laws and regulations, the Articles of Incorporation and internal rules. Going forward, NGK plans to conduct self-evaluations by each director, and upon reporting them to the Board of Directors, disclose a summary of analysis and assessment of the effectiveness of the Board's function

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▶ **Supplemental principles 4-14 (2). Policies on the training of directors and corporate auditors**

In light of the obligation for good manager's duty of care as employees appointed as directors and corporate auditors. NGK has adopted the following training policies aimed at providing opportunities for learning that will enable these individuals to fulfill their responsibilities as management professionals and executive supervisors.

1. Corporate governance and compliance-related training involving the Companies Act, the Financial Instruments and Exchange Law and the Competition Law for internal directors.
  2. With regard to external directors, we provide individual explanations concerning mainly Board of Director meeting proposals facilitated by personnel from relevant business divisions, as well as regular opportunities for the provision of information and exchange of opinions pertaining to business environment and related issues.
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▶ **Principles 5-1. Policies related to the establishment of systems and initiatives aimed at promoting constructive dialogue with shareholders**

NGK is engaged in the maximization of corporate value through two-way communication with shareholders and investors, including efforts to provide accurate and timely explanations regarding management conditions and policies. NGK makes best effort to promote constructive dialogue through sincere responses to requests for interviews with shareholders and investors, questions raised at general shareholder meetings and inquiries sent through our corporate website, which are facilitated under the guidance of the directors in charge of the Finance and General Affairs departments, which work in close cooperation with the Corporate Strategy Office, the Public Relations Office and Legal Department when necessary. NGK also places importance on direct dialogue with institutional investors, conducting biannual earnings presentations and overseas IR road shows led by senior managements.

The details of these dialogues are regularly reported to the Board of Directors. This management feedback is used to

improve management efficiency and transparency.

Shareholder and investor dialogues are conducted with the objective of increasing corporate value and capital efficiency, as well as promoting sustainable growth. The disclosure of material information not already publicly available within the context of these dialogues constitutes damage to the equality between shareholders. In principle, NGK does not disclose unannounced material information.

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## Reasons for not implementing each principle of the corporate governance code

### ▶ Principles 4-8. Appointment of two or more independent external directors

At present, NGK's Board of Directors includes two external directors whose appropriate role is the strengthening of corporate governance through recommendations related to overall NGK management. One of these is paid expenses related to their commission as chairperson of a separately installed independent committee, and is not registered as an independent director.

Although this external director is not registered as an independent director, there is no relationship of special interest with NGK. The company determines that this external director independent is sufficiently fulfilling their expected role as independent from management, providing the Board of Directors with an outside perspective based on experience and knowledge, including minority shareholders.

The other external director is registered as an independent director, fulfilling an important role in terms of sustainable corporate growth and medium- to long-term corporate value improvement by providing the Board of Directors with recommendations based on their experience and knowledge.

In light of the demand for the appointment of two or more independent external directors in the recent corporate governance code, NGK will consider how this condition will be met going forward.

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## Corporate Governance

### External Directors and outside audit & supervisory board members

NGK appoints individuals who possess outstanding achievements and a wealth of experience from a variety of industries to monitor director business execution in an attempt to realize stronger, more efficient management. Additionally, in terms of external director independence, overall determinations are made with consideration for the Tokyo Stock Exchange “Guidelines for Listing” to avoid conflicts of interest with general shareholders. Our two external directors are professionals able to make objective, rational decisions, while our two external audit & supervisory board members provide opinions mainly from social and financial perspectives.

#### Activities of Outside Directors

Name		Attendance at Board of Director meetings	Main activities
External directors	Hiroyuki Kamano	Attended all 13 Board of director meetings	Mr. Kamano offers advice regarding compliance structure enhancement and management approaches for management planning utilizing his substantial experience and specialization as an attorney.
	Toshio Nakamura	Attended 12 of 13 Board of Director meetings	Mr. Nakamura offers opinions that clarify the foundation of business decisions utilizing his wide-ranging experience and achievements in economic and industrial administration.

Name		Attendance at Board of Director meetings	Attendance at Audit & Supervisory Board meetings	Main activities
Outside audit & supervisory board members	Setsuo Tanaka	Attended all 13 Board of Director meetings	Attended all 15 Board of Corporate Auditor meetings	Mr. Tanaka offers advice pertaining to enhancing risk management systems utilizing his experience and achievements in police administration.
	Ichiro Terato	Attended 11 of 13 Board of Director meetings	Attended all 15 Board of Corporate Auditor meetings	Mr. Terato provides opinions on general management utilizing experience and wide-ranging knowledge gained in management positions with The Bank of Tokyo-Mitsubishi UFJ and the Nikon Corporation.

#### Current Independent Directors and Reasons for Appointment

Name	Independent directors	Reasons for Appointment
Toshio Nakamura, Outside director	○	Mr. Nakamura is expected to provide recommendations on all NGK management issues utilizing substantial experience and wide-ranging knowledge accumulated throughout his career, during which he served as Ministry of International Trade and Industry (now Ministry of Economy, Trade and Industry) Trade Director and Small and Medium Enterprise Agency Secretary. At present, Mr. Nakamura is an Executive Director at the Tokyo Chamber of Commerce and Industry, and has for many years served in key positions that contributed to the promotion of commerce and industry.
Ichiro Terato, Outside audit & supervisory board members	○	Mr. Terato is expected to provide recommendations on all NGK management issues utilizing his wide-ranging knowledge and vast experience as a corporate management professional accumulated throughout his long career as corporate manager, during which he served as a Senior Managing Executive Officer at The Bank of Tokyo-Mitsubishi, Ltd. (now The Bank of Tokyo-Mitsubishi UFJ) and as a Director and Executive Vice President at the Nikon Corporation.



## Corporate Governance

### Board of director and audit & supervisory board member remuneration, etc.

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#### Determination and Details of Policies Related to the Calculation Method for Aggregate Director Remuneration

In April 2005, the Board of Directors decided to revise the director remuneration system by introducing performance-based bonuses and stock-based compensation stock options to clarify directors' responsibility for achievement and enhance fairness and transparency with the intent of stimulating motivation aimed at realizing corporate philosophy and management policies. Based on this decision, and within the framework subsequently approved at the General Meeting of Shareholders, director remuneration is determined in accordance with the following policies.

Moreover, regarding director and corporate officer remuneration, the Nomination and Compensation Advisory Committee, consisting of a majority of external directors, deliberate matters related to board member and corporate officer appointments, Chief Executive Officer succession planning and other matters, the results of which are reported to the president in an effort to ensure fairness and improve transparency when making director appointments and remuneration decisions.

#### Remuneration Determination Policies

Director Remuneration (Excluding external directors)	Director remuneration consists of basic remuneration as fixed annual remuneration commensurate with management positions, a performance-based bonus and stock-related remuneration. External director and audit & supervisory board member remuneration consists solely of basic remuneration.
Performance-based bonuses (An annual bonus)	Bonus system based on annual performance of each director (excluding external directors) aimed at increasing connection to earnings and clarifying directors' responsibility for achievement. Amount varies based on consolidated operating income, net sales and ROE performance.
Stock-related remuneration (Long-term incentive)	To further increase sensitivity toward NGK stock prices and consolidated earnings, and to share not only the benefits when stock prices rise, but also the risks facing shareholders when stock prices fall, as well as increase motivation and morale with respect to increasing the stock price and consolidated earnings through appropriate management, NGK grants stock-based compensation stock options at an exercise price of ¥1 per share to directors (excluding external directors) in an amount determined according to the relevant position. In principle, stock options may be executed within a period of five years beginning no earlier than one year after resignation.
Amount of audit & supervisory board member remuneration	Determined through discussions with audit & supervisory board members

Director category	Total remuneration (Millions of yen)	Total remuneration by type (Millions of yen)				Applicable directors (people)
		Basic remuneration	Stock options	Bonus	Retirement benefits	
Directors (excluding external directors)	478	381	67	29	-	13
Audit & supervisory board members (excluding outside audit & supervisory board members)	59	59	-	-	-	3
External corporate officers	44	44	-	-	-	4

### Directors Receiving Total Remuneration of ¥100 Million or More

In fiscal 2014, no directors received consolidated remuneration of ¥100 million yen or more.

## Corporate Governance

### Internal Control Systems

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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 philosophy.

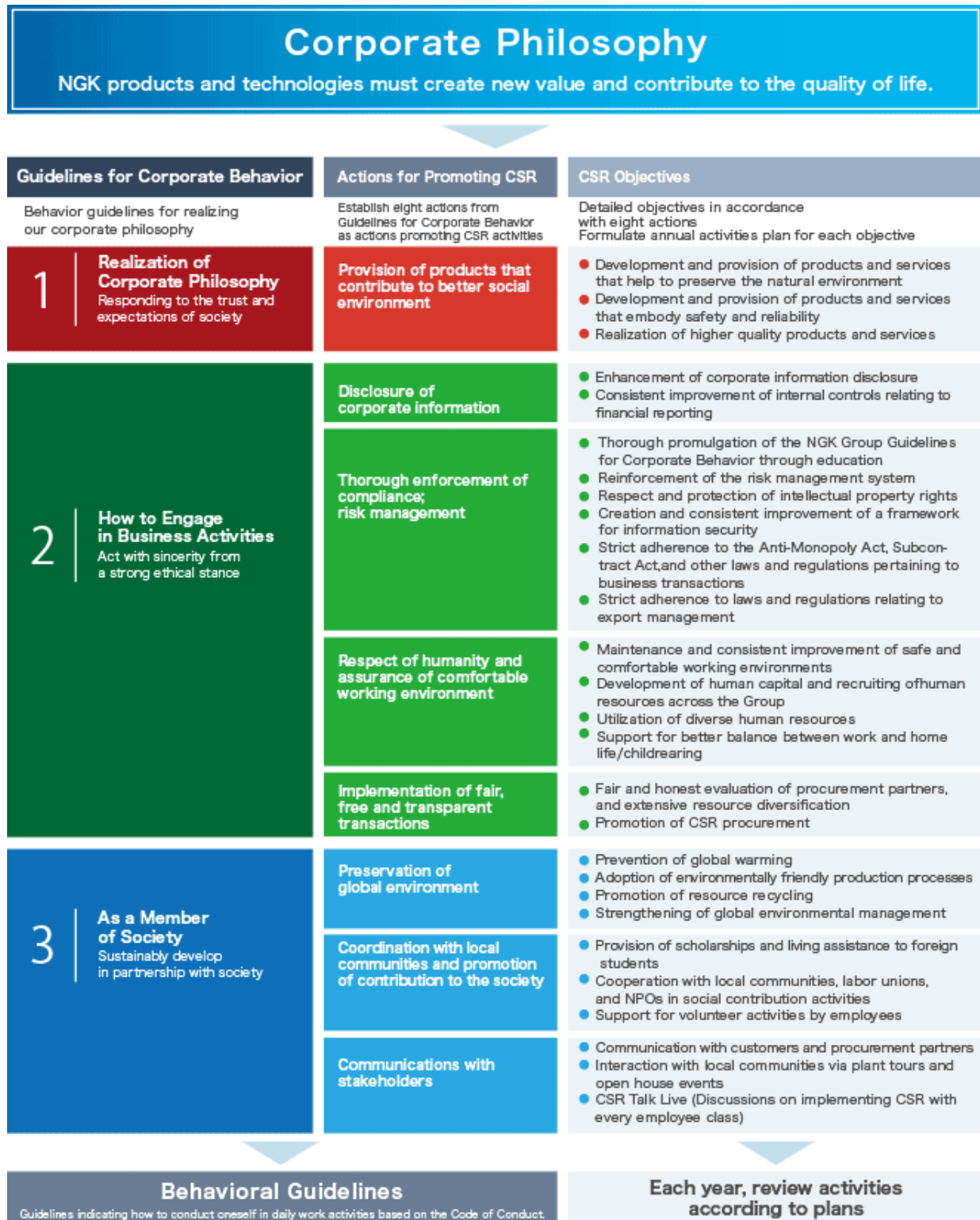
These guidelines specify the Group's fundamental stance with respect to business activities and corporate behavior to ensure it remains a company that is beneficial to society, even in the pursuit of its economic goals. The CSR Committee, meanwhile, is responsible for a range of activities that include 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.

Please note that the "resolution for the development of systems to ensure the appropriateness of operations" was amended at a Board of Director meeting held on April 20, 2015 based on revisions to the Companies Act and Companies Act enforcement regulations that went into force on May 1, 2015.

# CSR Management

## CSR Activities Concepts and Systems

The NGK Group aims to realize its corporate philosophy through the provision of products and services that will bring new value to society and contribute to the creation of a better social environment. We will fulfill our social responsibilities through these activities, establishing and continually strengthening CSR objectives to meet the expectations and earn the trust of society.



# CSR Management

## Materiality

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Aiming to develop a sustainable society and in consideration of a variety of stakeholder demands, the NGK Group established eight items from Guidelines for Corporate Behavior as CSR promotion items determining the specific objectives and achievements for each item. Each year, we verify the achievement status of each objective in an attempt to continuously improve these efforts.

▶ [CSR Activity Objectives and Achievements](#)



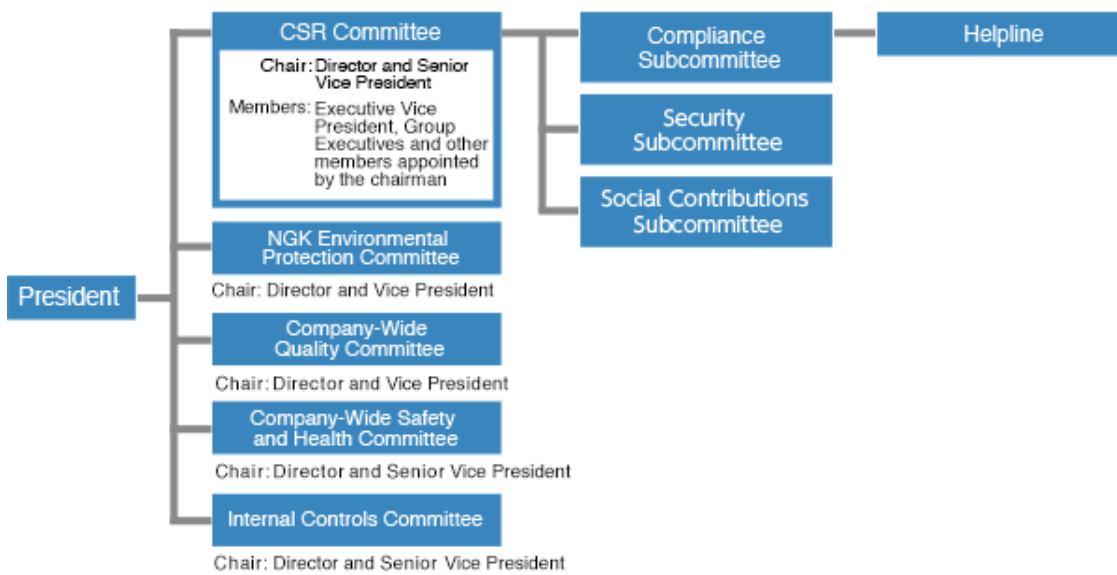
# CSR Management

## CSR Promotion Framework

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To promote CSR activities, the NGK Group 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.

In terms of legal and corporate ethics compliance activities, the CSR Committee discusses items necessary to assist decision-making by the president and CSR Committee chair, provides support in matters determined to potentially have a substantial impact on the company with respect to legal or ethical considerations, incidents or accidents, reviews and evaluates the promotion plans of each subcommittee, and conducts a wide range of activities, including the discussion of CSR-related items, determined to be important by the committee chair.



▶ [About the Roles and Functions of Each Committee](#)

# CSR Management

## Targeted Stakeholder and Response Policies

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The NGK Group promotes an understanding of our business among customers, suppliers, shareholders, investors, employees and regional communities, continuously improving our activities and initiatives through dialogues with all our stakeholders.



### Connection with Customers

To earn and maintain the trust of customers, we engage in the creation of new value through the provision of products and services realizing global environmental conservation and social safety and peace of mind from a long-term and global perspective.

- ▶ [Company-Wide Quality Policy](#)

### Connection with Suppliers

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. We also established a supplier helpline to provide unwavering support for important inquiries in an effort to build and maintain fair supplier relationships.

- ▶ [Basic Purchasing Policy](#)
- ▶ [Supplier Helpline](#)
- ▶ [Supply chain: Fair and honest evaluation of procurement partners, and extensive resource diversification](#)

### Connection with Shareholders and Investors

The NGK Group aims to meet expectations for enhanced corporate value through dialogues and efforts to disclose information pertaining to management, finance, products and services in a timely and appropriate manner.

### Employees

The NGK Group strives to create a safe and comfortable workplace environment with respect for employee humanity. We also support the growth of human resources and fair treatment enabling each employee to maximize their skills.

- ▶ [Basic Policy on Human Resource Development](#)

### Regional Communities

We proactively engage in social contribution activities in response to community needs with the intent of becoming a corporate citizen trusted by society with concern for social issues in all countries and regions where we do business.

# CSR Management

## Human Rights Initiatives

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Having established respect for humanity in its Guidelines for Corporate Behavior, the NGK Group uses its intranet, which is available to all domestic Group company employees, to explain and disseminate the United Nations “Universal Declaration of Human Rights”<sup>\*1</sup> and “Guiding Principles on Business and Human Rights.”<sup>\*2</sup>

The NGK Group took advantage of its participation in the UN Global Compact in April 2015 as an opportunity to proactively spread awareness about the protection of human rights, and in May, conducted a seminar providing an overview of the UN Global Compact and an explanation of its proposals for the protection of human rights among other efforts to spread awareness about the importance of protecting human rights through compliance training.

▶ [Compliance Training](#)

<sup>\*1</sup> Adopted on December 10, 1948 at the Third United Nations General Assembly Session, this declaration expresses the rights to which all human beings in all nations are inherently entitled (General Assembly Resolution 217 (III)). The formal name is the Universal Declaration of Human Rights.

<sup>\*2</sup> UN Guiding Principles on Business and Human Rights: Based on the “Report on Human Rights and Transnational Corporations and Other Business Issues” by John Ruggie, UN Secretary-General’s Special Representative for Business and Human Rights (at that time).



The UN Global Compact is a global framework for realizing sustainable growth through companies and organizations acting as good members of society. Participating corporations support ten principles in the areas of human rights, labor, the environment and anti-corruption required in the practice of corporate activities.

### [The Ten Principles of the UN Global Compact]

#### Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

#### Labor

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labor;

Principle 5: the effective abolition of child labor; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

#### Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

#### Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

▶ [Related News](#)

# 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

Strengthen production system in response to market trends for automotive-related products.(NGK Group)	<a href="#">Strengthened global production system in response to expanding demand for automotive-related products. (NGK Group)</a>	○	Strengthen production system in response to market trends for automotive-related products. (NGK Group)
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### Development and Provision of Products and Services That Embody Safety and Reliability

Promote market development and cost reductions. (NGK)	<a href="#">Began full-fledged operation of NAS® batteries at domestic smart cities, increased shipments to meet large overseas orders. (NGK)</a>	○	Promote market development and cost reductions. (NGK)
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### Realization of Higher Quality Products and Services

Enhance design quality in light of deterioration, improve manufacturing methods to control variation. (NGK Group)	<a href="#">In design divisions, enhanced design verification in consideration of usage environment and deterioration. In product divisions, improved manufacturing methods to control product discrepancies (NGK Group)</a>	○	Zero major market complaints through strict design verification and reliability evaluation. Eliminate defect costs through optimization and standardization of production conditions. (NGK Group)
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## Disclosure of Corporate Information



### Enhancement of Corporate Information Disclosure

Enhance and continue to provide fair and honest information disclosure in a timely and appropriate manner. (NGK Group)	<a href="#">Conducted ongoing fair and honest information disclosure in a timely and appropriate manner. (NGK Group)</a>	○	Enhance and continue to provide fair and honest information disclosure in a timely and appropriate manner. (NGK Group)
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### Consistent Improvement of Internal Controls Relating to Financial Reporting

Curtail and clearly improve items identified by audits. (NGK Group)	<a href="#">Improved all items identified by audits within the fiscal year. (NGK Group)</a>	○	Improve items identified during audits. (NGK Group)
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Raise efficiency in assessment and audit of processes rated favorably in the previous fiscal year. (NGK Group)	<a href="#">Raised efficiency in assessment and audit of processes rated favorably in the previous fiscal year. (NGK Group)</a>	○	Raise efficiency in assessment and audit of processes rated favorably in the previous fiscal year. (NGK Group)
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## Thorough Enforcement of Compliance; Risk Management



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

Continue thorough awareness and inculcation of NGK Group Guidelines for Corporate Behavior and behavioral guidelines. (NGK Group)	<a href="#">Familiarized employees with career training, created a paper on awareness summarizing guidelines for corporate behavior distributed to all employees. (NGK Group)</a>	○	Continue thorough awareness and inculcation of NGK Group Guidelines for Corporate Behavior and behavioral guidelines. (NGK Group)
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### Reinforcement of the Risk Management System

The CSR Committee will regularly follow-up on the status of Company-wide risk countermeasures.(NGK Group)	<a href="#">CSR Committee met three times, followed up on status of risk countermeasures. (NGK Group)</a>	○	The CSR Committee will regularly follow-up on the status of Company-wide risk countermeasures. (NGK Group)
Distribute CSA questionnaire to all domestic Group companies. (domestic Group companies)	<a href="#">Distributed CSA questionnaire to 311 domestic Group company directors and managers.</a>	○	Implement CSA questionnaire targeting NGK

### Respect and Protection of Intellectual Property Rights

Conduct awareness program for managers on innovator intellectual property management. (NGK)	<a href="#">Conducted awareness program for approximately 200 manager-level employees consisting of lectures led by invited university professors who discussed "innovator intellectual property management." (NGK)</a>	○	Conduct awareness program for manager-level employees. (NGK)
Continue to conduct small group discussion-based seminars for young engineers. (NGK)	<a href="#">Conducted ten small group discussion-based seminars for young engineers in the R&amp;D and business divisions attended by 73 employees. (NGK)</a>	○	Continue to conduct small group discussion-based seminars for young engineers. (NGK)

### Creation and Consistent Improvement of a Framework for Information Security

Continue to follow up on security measures and strengthen software management. (NGK Group)	<a href="#">Followed up on security measures and software management status at Group companies during and at the end of the fiscal year. Provided individual guidance to Group companies with insufficient measures. (NGK Group)</a>	○	Complete Group-wide compliance with Microsoft Edge browser ahead of January 2016 phase-out of Internet Explorer (NGK Group)
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### Strict Adherence to the Anti-Monopoly Act, Subcontract Act, and Other Laws and Regulations

## Pertaining to Business Transactions

Continue regularization of seminars, etc. (NGK Group)	<a href="#">Conducted three seminars on competition law compliance inviting lawyers as external lecturers targeting corporate officers, key personnel and sales staff. Approximately 480 employees attended; those unable to attend watched the lecture in DVD. (NGK Group)</a> <a href="#">Conducted the seminar in Europe, the United States and South Africa. (NGK Group)</a>	<input type="radio"/>	Continue regularization of seminars, etc. (NGK Group)
Promote thorough awareness and use of competition laws handbook. (NGK Group)	<a href="#">In addition to inculcating thorough awareness, introduced latest information on competition laws. (NGK Group)</a>	<input type="radio"/>	Implement program to thoroughly inculcate competition law compliance. (NGK Group)

## Strict Adherence to Laws and Regulations Relating to Export Management

Ongoing study meetings and training related to import/export management. (NGK)	<a href="#">Conducted awareness training focused on import/export handbook at study meetings related to import/export management in each division. (NGK)</a>	<input type="radio"/>	Inculcate thorough awareness of import/export handbook. (NGK)
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## Respect of Humanity and Assurance of Comfortable Working Environment



## Maintenance and Consistent Improvement of Safe and Comfortable Working Environments

Focus efforts on safety training to prevent accidents before they occur. (NGK)	<a href="#">Strengthened "experiential training" attended by more than 350 employees. (NGK)</a>	<input type="radio"/>	Focus efforts on safety training to prevent accidents before they occur. (NGK Group)
Promote 5S workplace certification activities, continue to develop company-wide. (NGK)	<a href="#">Horizontally deployed successful case studies developed company-wide. (NGK)</a>	<input type="radio"/>	Promote 5S workplace certification activities, continue to develop company-wide. (NGK)
Continue health management for employees who routinely work long hours. (NGK)	<a href="#">Continued implementation, 114 employees participated. (NGK)</a>	<input type="radio"/>	Continue health management for employees who routinely work long hours. (NGK)

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

Plan highly effective human resource training. (NGK)	<a href="#">Promoted systematic training through approximately 120 programs. (NGK)</a>	<input type="radio"/>	Plan highly effective human resource training. (NGK)
Promote systematic training in attempt to strengthen onsite capabilities. (NGK Group)	<a href="#">Held training to enhance in-house instructor skills attended by 21 employees. (NGK Group)</a>	<input type="radio"/>	Promote systematic training in attempt to strengthen onsite capabilities. (NGK Group)



Ongoing language training (Goal: 80% of new hires score 600 or higher on the TOEIC). (NGK)	<a href="#">88% of new hires achieved a TOEIC score of 600 points or higher. (NGK)</a>	<input type="radio"/>	Ongoing language training (Goal: 80% of new hires score 600 or higher on the TOEIC). (NGK)
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### Utilization of Diverse Human Resources

Maintain disabled employment rate at 2.0% or higher. (NGK)	<a href="#">Achieved the 2.23% legally mandated ratio. (NGK)</a>	<input type="radio"/>	Maintain disabled employment rate at 2.0% or higher. (NGK)
Continue to promote use of system for transferring to general employment jobs.(NGK)	<a href="#">Six employees transferred to general employment jobs. (NGK)</a>	<input type="radio"/>	Continue to promote use of system for transferring to general employment jobs. Increase ratio of new female graduate employment. (NGK)

### Support for Better Balance between Work and Home Life/Childrearing

Work with labor union to promote rectification of long working hours. (NGK)	<a href="#">In conjunction with the Worker's Union, reviewed factors causing work outside regular business hours to increase and implemented countermeasures resulting in a significant reduction in the incidence of employees working 45 or more hours outside regular business hours. Also, the number of employees working 600 or more hours annually has decreased for three years straight. (NGK)</a>	<input type="radio"/>	Work with labor union to promote rectification of long working hours. (NGK)
Increase use of expanded childrearing support measures. (NGK Group)	<a href="#">In addition to consideration for working hours, we increased the amount of maternity gift payments, established a gift payment for children starting elementary school and created a babysitter expense subsidy system. Furthermore, we implemented a system for preferentially allotting employee parking spaces within the vicinity of the headquarters to employees raising children. (NGK)</a>	<input type="radio"/>	Increase use of expanded childrearing support measures. (NGK)

### Implementation of Fair, Free and Transparent Transactions



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

Conduct assessment on 10% of total number of suppliers. (NGK)	<a href="#">We visited and evaluated nine new suppliers and 103 existing suppliers, a total of 112 companies. (NGK)</a>	<input type="radio"/>	Conduct evaluation of new suppliers and important suppliers (approximately 1% of all supplier companies). (NGK)
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Promote consideration of collected questionnaire results on BCP targeting top 50 suppliers. (NGK)	<a href="#">Discussed individual responses with consideration to relationships with each procurement partner and supplier. (NGK)</a>	○	Discussed individual responses with consideration to relationships with each procurement partner and supplier. (NGK)
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### Promotion of CSR Procurement

Expand CSR procurement by seeking agreement from new suppliers (NGK Group)	<a href="#">Obtained written agreements from new suppliers. (NGK Group)</a>	○	Maintain ongoing activities aimed at reconfirming supplier understanding and written agreements. (NGK Group)
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## Preservation of Global Environment



### Prevention of Global Warming

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. (NGK Group)	<a href="#">Curb CO2 emissions. Domestic: Emissions volume of less than 185,000 metric tons. Basic unit per net sales 13% reduction from previous fiscal year. Overseas: Basic unit per net sales 18% reduction from previous fiscal year. (NGK Group)</a>	△	Curb CO2 emissions. Domestic: Reduce CO2 emissions by 10% compared to fiscal 1990 (190,000 tons or less); Basic unit per net sales: Reduce by 20% compared to fiscal 2010. Overseas Basic unit per net sales: Reduce by 5% or more compared to fiscal 2010. (NGK Group)
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### Adoption of Environmentally Friendly Production Processes

Promote the development of innovative process technologies for overseas locations. (NGK Group)	<a href="#">CO2 reduction effect of improving production processes (overseas total): Approximately 23,000 tons. (NGK Group)</a>	○	Promote the development of innovative process technologies for overseas locations. (NGK Group)
Promote energy conservation measures on general purpose equipment at Group companies in Japan and overseas. (NGK Group)	<a href="#">CO2 reduction effect of energy-saving general purpose equipment (domestic total): Approximately 1,400 tons; (overseas total): 2,800 tons. (NGK Group)</a>	○	Promote energy conservation measures on general purpose equipment at Group companies in Japan and overseas. (NGK Group)

### Promotion of Resource Recycling

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	<a href="#">Curb amount of discarded materials generated. Domestic: Basic unit per net sales 15% reduction compared to the previous fiscal year. Overseas: Basic unit per net sales 19% reduction compared to the</a>	△	Curb amount of discarded materials generated. Domestic: Basic unit per net sales: Reduce 10% compared to fiscal 2010. Overseas: Basic unit per net sales: Reduce 5% compared to fiscal 2010. (NGK Group)
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previous fiscal year. (NGK Group)	<a href="#">previous fiscal year. (NGK Group)</a>		
Increase recycling rates within the scope appropriate for actual conditions at all overseas manufacturing bases. (NGK Group)	<a href="#">Established recycling rate appropriate for each manufacturing base. (NGK Group)</a>	○	Steadily promote and manage recycling in accordance with conditions in each country. (NGK Group)

### Strengthening of Global Environmental Management

Identify potential environmental risks at overseas Group companies. (NGK Group)	<a href="#">Conducted investigation into past troubles at global Group companies. (NGK Group)</a>	○	Focus on overseas Group companies, identify issues and consider responses when necessary. (NGK Group)
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### Coordination with Local Communities and Promotion of Contribution to the Society



### Provision of Scholarships and Living Assistance to Foreign Students

Maintain support to foreign students. (NGK)	<a href="#">Provided housing for 39 students from five countries and scholarships for 20 students from ten countries. (NGK)</a>	○	Maintain support to foreign students. (NGK)
Continue to hold language classes and cross-cultural exchange meetings led by foreign students conducted within and outside the company. (NGK)	<a href="#">Held Chinese and Korean language classes 20 times, conducted cross-cultural exchanges with foreign students from eight countries, including Sweden, Malaysia, Sri Lanka and Mongolia, ten times. (NGK)</a>	○	Continue to hold language classes and cross-cultural exchange meetings led by foreign students conducted within and outside the company. (NGK)
Distribute information after support ends. (NGK)	<a href="#">Sent NGK International Friendship Club Membership Cards and New Year's greetings to approximately 300 supported students up to now. (NGK)</a>	○	Distribute information after support ends. (NGK)

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

Ascertain activity status and maintain distribution of information connected to the upcoming activities at each Group company. (NGK Group)	<a href="#">Shared the status of activities at each company. (NGK Group)</a>	○	Ascertain activity status and maintain distribution of information connected to the upcoming activities at each Group company. (NGK Group)
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### Support for Volunteer Activities by Employees

Continue to create an environment enabling employees to easily take part in volunteer activities. (NGK)	<a href="#">Donated approximately 44,700 school meals to Africa through Table for Two (TFT). (NGK) Conducted forest cultivation volunteer activities. (NGK) Participated as group volunteers</a>	○	Continue to create an environment enabling employees to easily take part in volunteer activities. (NGK)
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	<a href="#">at Marathon Festival Nagoya-Aichi. (NGK)</a>		
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## Communications with Stakeholders



### Communication with Customers and Procurement Partners

Hold earnings results presentations for major suppliers. (NGK)	<a href="#">Held earnings results presentations for 130 major suppliers. (NGK)</a>	○	Hold earnings results presentations for major suppliers. (NGK)
Continue to operate the supplier helpline. (NGK)	<a href="#">Continue to operate the supplier helpline. (NGK)</a>	○	Continue to operate the supplier helpline. (NGK)
Continue visits and assessments focused on new and important suppliers. (NGK)	<a href="#">Visited 9 new suppliers and 103 existing suppliers for a total of 112 suppliers. (NGK)</a>	○	Continue visits and assessments focused on new and important suppliers. (NGK)

### Interaction with Local Communities via Plant Tours and Open House Events

Continue to interact with local communities. (NGK)	<a href="#">Interacted with local communities through 12 plant tours held at four sites. (NGK)</a>	○	Continue to interact with local communities. (NGK)
Conduct ongoing dialog with external stakeholders. (NGK)	<a href="#">Exchanged opinions with individuals mainly from local administrations. (NGK)</a>	△	Enhance communication with external stakeholders. (NGK)

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

Continue two-way communication events with NGK and domestic Group company employees. (NGK and domestic Group companies)	<a href="#">Conducted "CSR Talk Live" 9 times at 7 venues in Japan. (NGK and domestic Group companies)</a>	○	Continue two-way communication events with NGK and domestic Group company employees. (NGK and domestic Group companies)
Enhance CSR-Web content. (NGK and domestic Group companies)	<a href="#">Substantially expanded content. Disseminated information in real time. (NGK and domestic Group companies)</a>	○	Enhance CSR-Web content and use it for employee training. (NGK and domestic Group companies)

# Realization of Higher Quality Products and Services

## Basic Approach

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The NGK Group engages in the creation of quality from the customer's perspective by defining Corporate Quality Objectives each year in accordance with Corporate Quality Policy based on the NGK Group Guidelines for Corporate Behavior.

### **Corporate Quality Policy**

Take quality seriously, providing useful products and services that earn our customers' trust and that of the world at large

### **Fiscal 2015 Corporate Quality Objectives**

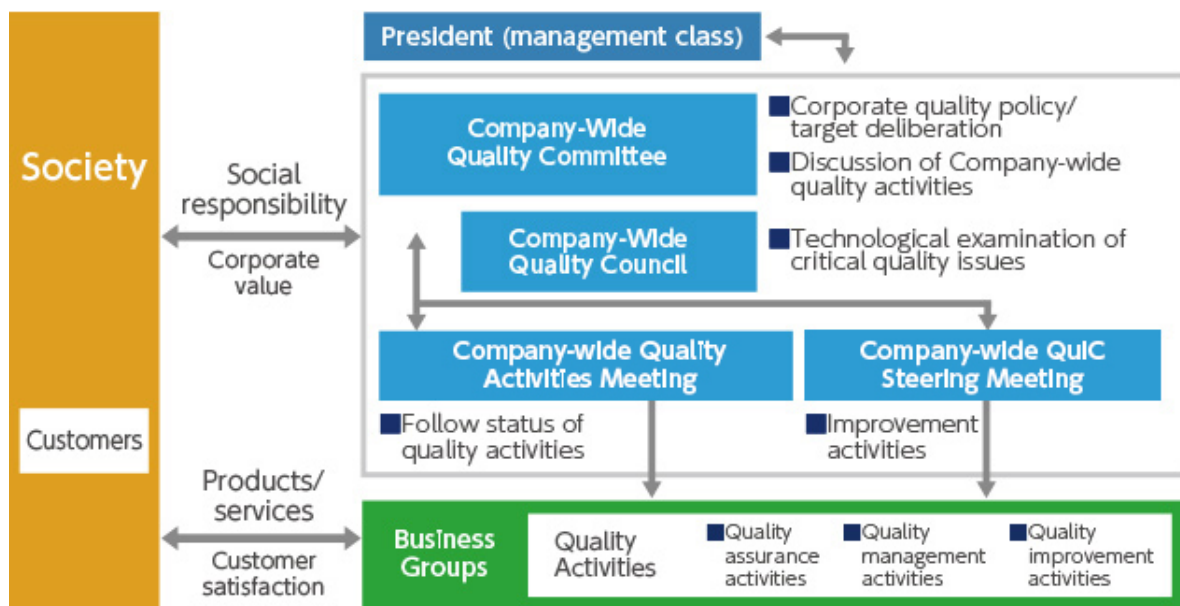
Zero major customer complaints through strict design inspection and reliability evaluation. Eliminate failure costs through optimization and standardization of production conditions

# Realization of Higher Quality Products and Services

## Quality Activity System

The NGK quality activity system consists of a company-wide system, led by the Company-wide Quality Committee chairman, and business division internal activity system, led by the heads of each business division. In terms of company-wide activities, the Company-wide Quality Committee was established to function as a deliberative body assisting the Company-wide Quality Committee chairman, while business division internal activities systems were put in place for each business line, creating appropriate quality systems for each. Quality assurance, quality management, quality improvements and quality training activities are promoted by the acquisition of ISO9001 or TS16949 certification.

### Company-Wide Quality Activities System



### Quality Management System Acquisition Status (March 2015)

The NGK Group quality management system has acquired 34 certifications (ISO9001 or TS16949) covering 100% of production bases in Japan and overseas.



# Realization of Higher Quality Products and Services

## Enhancing the Elimination of Quality Risks Company-Wide

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### NGK Group Corporate Rules for Company-Wide Quality Activities

In fiscal 2010, the NGK Group began restructuring quality activities to respond more precisely to increasing and diversifying quality demands from customers in different target markets. To this end, Company-wide quality activity rules were formulated to eliminate quality risks by promoting the establishment and improved efficacy of rules within the promotion of activities.

**Within company-wide quality activities, quality risks are eliminated through adherence to four rules.**

**Quality confirmation rule:**

Establishes milestones, from development to start of production, and confirms conformance with six quality levels when production processes change.

**DR function strengthening rule:**

Registers DR plans with quality risks of medium or high importance as important DR with participation of company-wide DR reviewers. The company-wide Quality Management Department head holds company-wide DR for cases with particularly high quality risks.

**Quality monitoring rule:**

Monitors and shares information company-wide with respect to quality status changes or problems concerning products or markets. Manufacturing defects and customer complaints are reported each month to the company-wide Quality Management Department, who provides advice on how to address defects.

**Handling major customer complaints rule:**

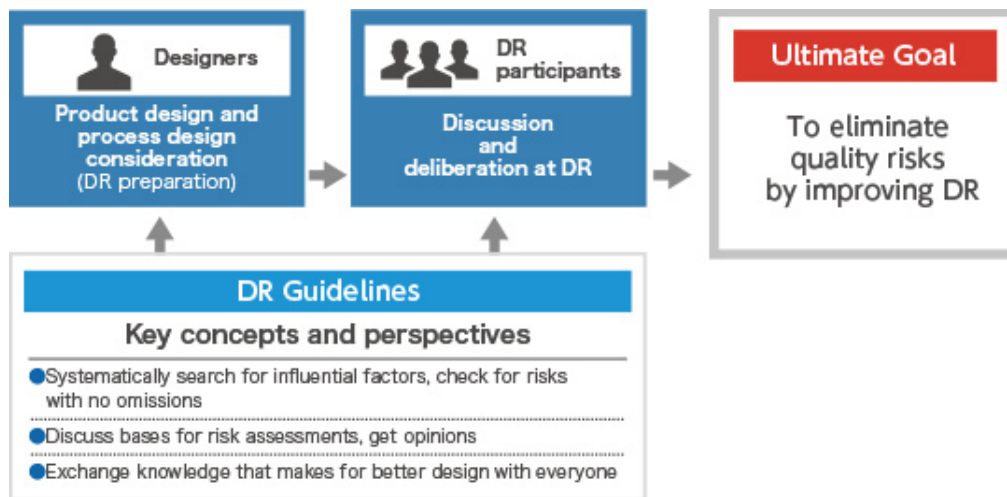
In the event of a major customer complaint, the situation is quickly assessed and reported to the company-wide Quality Committee to formulate countermeasures.

Among these activities, design review (DR) is considered most critical. DR is conducted when development milestones are reached or when production processes change. Critical DR is conducted by reviewers from throughout the company to support the elimination of risks. Company-wide DR is conducted in the Company-Wide Quality Council, who calls on a wide range of engineers and knowledgeable people throughout the company to evaluate product reliability and safety from a variety of perspectives.

### DR Guidelines

DR Guidelines were created to enable more proactive DR and the thorough elimination of quality risks. We promote increased DR efficacy through efforts to spread DR, including training and reviews of each DR.

DR Guidelines show key concepts and perspectives with regard to eliminating quality risks and describe ways to enhance DR quality risk elimination activities.



### From the Establishment of Rules to More Effective Improvements

From the Establishment of Rules to More Effective Improvements In addition to strengthening and invigorating DR, NGK conducted internal monitoring at each division to confirm the establishment and efficacy of rules for company-wide quality activities and engaged in discussions aimed at improving quality activities in each division.

In fiscal 2014, emphasis was placed on conducting activities to control product discrepancies in light of product deterioration. Design verification was enhanced in consideration of user environment and deterioration in the Design Division, while process design discussions were held to reduce product discrepancies and existing product improvement initiatives were promoted in the Production Division.

Going forward, NGK will thoroughly eliminate quality risks and make further improvements to manufacturing quality through initiatives to strengthen quality activities.

### Eliminating Adverse Impacts on User Health and Safety

All departments at NGK conduct DR when commercializing new products. Product commercialization is conducted based on deliberation to ensure no adverse impacts on user health and safety.

## Realization of Higher Quality Products and Services

### Company-Wide Quality Activities at Overseas Production Bases

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From their inception, overseas production bases have created quality systems and acquired ISO9001 or TS16949 certification. As at production bases in Japan, since launching company-wide quality activities, customer complaints and the status of manufacturing quality are reported each month and issues are discussed at the Company-wide quality activity meeting. This has enabled the entire NGK Group to quickly ascertain quality status.

Company-wide quality activity rules and corporate quality objectives are developed each year in an attempt to expand the deployment of quality activities.

#### A joint technical exchange meeting held at a Group company in the United States

In May 2014, NGK Ceramics USA and NGK Automotive Ceramics USA held a joint technical exchange meeting attended by approximately 40 employees. Product and technical staff shared information about HONEYCERAM®\* and other latest technological trends in an attempt to enhance one another's technical understanding.

Note: A ceramic substrate containing catalysts that render harmful substances found in gasoline vehicle exhaust harmless.



# Realization of Higher Quality Products and Services

## 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. Every July, NGK holds a company-wide contest at its headquarters to highlight examples of outstanding improvement activities with the intent of horizontal deployment throughout the company.

Fiscal 2014 Proposal Activity Participation Rate	
Manufacturing divisions	100%
Non-manufacturing divisions	85%
Number of Proposals	Approx. 36,000



Held on July 18, 2014, 16 divisions, including overseas Group companies, presented outstanding improvements to a total audience of 400 employees.

### QuiC Activities Aimed at Further Invigoration

QuiC activities comprising Group improvement activities and proposal activities were conducted mainly to improve the resolution of immediate problems at worksites, but in 2014 Group improvement activity guidelines were issued in an attempt to shift the focus to the resolution of business issues in each division. As these activities had tended to focus on the manufacturing divisions, these guidelines encourage activities that are directly engaged in workplace and business issue resolution in the Engineering and Sales and Administrative divisions.

In fiscal 2104, we began exchange-based training workshop at overseas manufacturing bases for personnel demonstrating excellent Group improvement activities and proposal activities. In response to global production systems, interactions at the overseas production base where the training takes place shall lead to an increase in knowledge and motivation with respect to improvement activities at both bases.

▶ [Special Feature: New/Reformed Manufacturing Structures](#)

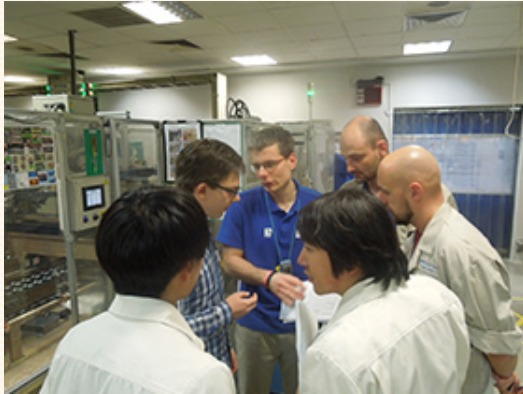
**CLOSE UP!**

**Promoting Employee Exchanges Between Japan and Poland to Realize**

## Further Quality Improvements

In November 2014, the Company conducted an overseas training activity at NGK Ceramics Polska for the first time with the intent of increasing the effectiveness of QuiC activities. The six participants comprised employees who submitted the best proposals in fiscal 2013 and Grand Prize winners from the company-wide presentation for fiscal 2014 QuiC activities.

The training helped improved the skills of both the participants and the local Polish staff.



### Feedback from Training Participants

**“The boundless ambition of the overseas staff made a deep impression on me.”**

Masatoshi Kamiya, Ceramics Business Group

I was at a manufacturing base in China for four years, where I worked with local staff engaged in quality improvements. This training was my first time visiting a European manufacturing base, where I participated in improvement training with highly ambitious Polish staff. Exchanging specific opinions while viewing the worksite led to many new realizations and discoveries, resulting in an extremely meaningful training for all involved. What I learned will be useful for improving quality going forward, and by sharing the information I received with coworkers in Japan, I will attempt to raise the level of the workplace overall.

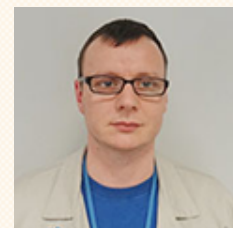


**“I will optimize the manufacturing process using the knowledge I gained during training.”**

Boleslaw Warzecha, NGK CERAMICS POLSKA

Seeing the factory where I work through the eyes of the Japanese staff who attended the training led to my discovering approximately 30 areas for improvement. I also received a wealth of advice that will lead to big improvements. Above all, seeing the Japanese staff's thorough and uncompromising approach to improvements was extremely stimulating for everyone who participated and significantly increased our motivation to further improve quality.

At present, we are engaged in a company-wide project to eliminate waste from the manufacturing process. Making use of what we learned during training will lead to the optimization of manufacturing processes.



# Realization of Higher Quality Products and Services

## Strengthening Quality Education

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 2014, quality risks were identified in actual development and design topics in an attempt to learn about the promotion of development and design with an emphasis on eliminating quality risks. Practical risk prevention training (for managers) involved seminars promoting preventative activities within divisions targeting upper level managers.

With regard to DR for eliminating quality risks, in fiscal 2011 NGK began training to promote the improved efficacy of these activities. In fiscal 2014, DR Guidelines were used in training mainly for younger employees.

Additionally, we made use of information pertaining to past mistakes to learn and prevent recurrence, what is known as the “knowledge of failure,” in a seminar for managers and key personnel in the Engineering divisions.

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

### Main Quality Improvement Activities Strengthened in Fiscal 2014

Training name	Participating Divisions	Times	Number of Participants	Objective
Practical risk prevention training	Four Divisions	16	20	Learned approaches to heightening awareness of practical risks based on customer needs using actual business issues. These activities were concentrated over a short period, held four times in one month.
Practical risk prevention training (For managers)	Mainly Engineering and Quality Assurance divisions	1	22	Targeted upper level managers to promote prevention activities within divisions and teach reliable management knowledge and behaviors managers should engage in.
DR guideline training	Core product lines	2	40	Attempted to raise level of DR through focus on DR modalities and the necessity of improving DR. Level-based training for young engineers in their fourth year of employment.
Knowledge of failure seminar	Core product lines	2	Lectures and exercises: 60 employees Lectures: 130 employees	Targeted key personnel in development, design and quality assurance. Lectures and exercises made use of examples of mistakes in actual business practices. In addition, managers were taught the necessity of deployment of information acquired to division members.

### Recommending the QC Test

Since fiscal 2011, under the slogan “thoughtful



manufacturing,” Group company NGK Metex has been focused on human resource development through the implementation of “awareness training.” With the aim of going even further, since 2014 they have encouraged employees to sit for the quality control test (QC test, administered by the Japanese Society for Quality Control). In the first year, nearly 40% of their employees passed one of the four levels evaluated on this exam. Employees from both the manufacturing divisions as well as the management divisions took the exam, as the company aims to have all its employees pass.



The enhanced skills of each employee are used to increase product quality

# Realization of Higher Quality Products and Services

## System for Making Use of Customer Feedback in Management

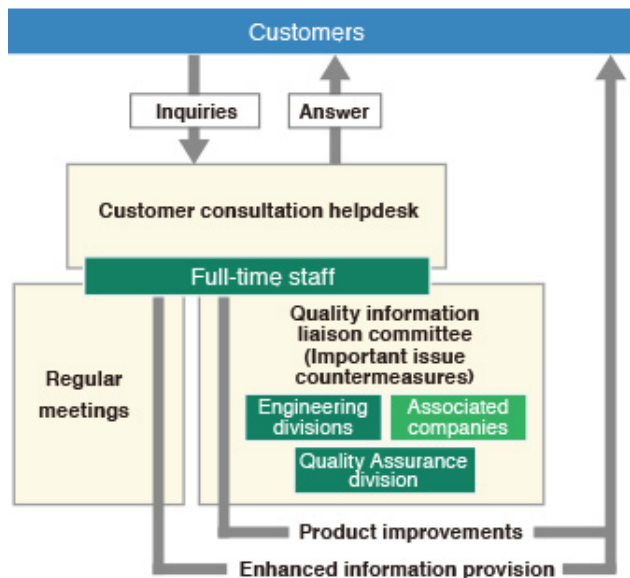
As the top industrial ceramics manufacturer in the industry, NGK makes use of its accumulated technologies to manufacture and sell C1 home-use water purifiers and promotes the creation of mechanisms for reflecting customer feedback.

### Establishment of a Customer Consultation Helpdesk

We set up a dedicated C1 customer consultation helpdesk in-house to create a mechanism for reflecting customer feedback in our products and services.

During fiscal 2014, in department stores across Japan, we launched over-the-counter sales and held taste tests at various events to convey the appeal of water purifiers in an attempt to communicate actively with customers.

We also respond to inquiries submitted through the NGK website.



### Customer Cards

We respond to customer feedback provided on i°customer cards± sent to us when customers purchase the C1. This card includes a survey asking customers to fill in the location and reason for the purchase and the name, address and age of the customer. Customeri°s information is added to a list used to notify them when it is time to replace the cartridge.

# Communication with Shareholders and Investors

## Basic Approach

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The NGK Group corporate information disclosure is defined in “How to Engage in Business Activities” within the NGK Group Guidelines for Corporate Behavior (see below). Furthermore, along with timely and accurate disclosure of management and financial data through a variety of mediums, including via the corporate website, business reports and annual reports, the NGK Group strives for two-way communication enabling invaluable input from its shareholders and investors.

### **Disclosure of Corporate Information**

We will release, in an accurate and timely manner, any information sought by the public; including information on our management, finance, products and services to improve transparency in management and to gain society's trust in NGK Group companies.

### **Behavioral Guidelines**

We will promptly disclose any information required by society in accordance with applicable laws, regulations and our internal rules.

We will establish and adequately operate a mechanism for internal control relating to financial reports to disclose accurate financial information.

We will make good faith effort to answer any inquiry from customers pertaining to our products and services, providing responses in an appropriate manner.

▶ [NGK Group Guidelines for Corporate Behavior](#)

# Communication with Shareholders and Investors

## Management from the Shareholder's Perspective

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### Open Shareholder Meetings

NGK endeavors to hold open shareholder meetings that its shareholders feel welcome to attend. Every year, we introduce NGK corporate activities at the shareholder meeting with permanent booths near the venue displaying product exhibits explained by NGK staff.

At the fiscal 2014 General Meeting of Shareholders, in addition to the main venue, we adopted a new management approach and set up an additional venue to accommodate increased shareholder attendance. The additional venue was equipped with a monitor facilitating two-way interaction in an attempt to improve communication with shareholders. In an effort to expand shareholder meeting-related information, convocation notices were issued three weeks before the day prior to the meeting date. We also introduced an electronic voting system utilizing the Tokyo Stock Exchange's Electronic Voting Platform. In addition, we attempted to improve the legibility of convocation notices by switching to the highly readable Universal Design Font typeface.

Please click on the link below to view convocation notices, results of exercising voting rights and notices of resolution.

▶ [General Meeting of Shareholders-Related Information](#)

### Two-Way Communication

In addition to regular presentations held in Japan and overseas, the NGK Group conducts one-on-one meetings and participates in interviews among other ongoing initiatives to expand dialogues with institutional investors. NGK senior management also visits and conducts one-on-one discussions with institutional investors in Japan and overseas. Going forward, we will continue and expand these activities to further deepen communication with investors.

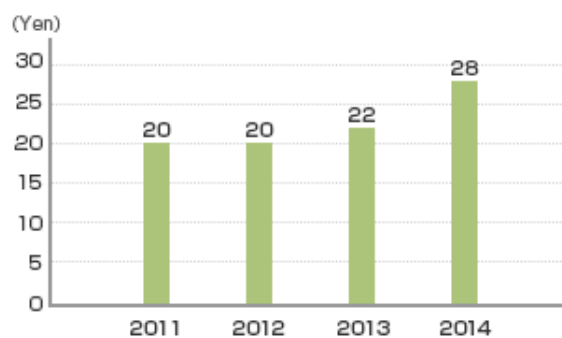
Activities in Fiscal 2014	Details
Japan	Senior management conducts presentations for analysts and institutional investors twice each year. They also conduct one-on-one meetings and participate in interviews.
Overseas	Senior management conducts overseas IR targeting analysts and institutional investors twice each year.
Click here to access online IR Library ▶ <a href="#">IR Information</a>	Includes reporting information and the timely disclosure of non-reporting information, securities reports, annual reports, General Meeting of Shareholder materials and other information.

### Measures for Returning Profits to Shareholders

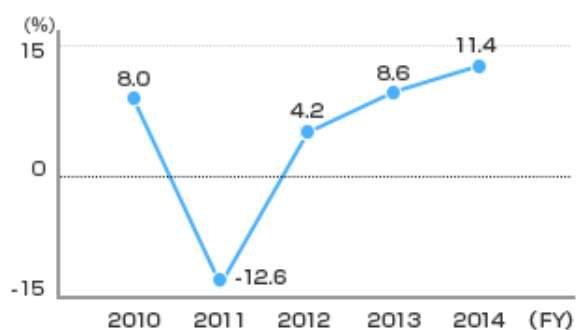
NGK views the return of profits to shareholders as one of its most important management policies. As a basic policy, we strive for shareholder-oriented management emphasizing return on equity (ROE), and distribute the benefits of successful management after consideration of a comprehensive range of factors, including business performance, financial position and future business development.

In fiscal 2014, favorable exchange rates due to the weakening yen and overall solid performance in ceramics products used in automotive-related products, semiconductor manufacturing equipment and all other businesses resulted in substantially higher sales and income compared to the previous fiscal year. Subsequently, ROE improved 2.8 percentage points over the previous fiscal year, to 11.4%. In light of these results, we increased the annual dividend by 2 to 30 per share, with a consolidated payout ratio of 20.4%.

## Dividends per Share



## Return on Equity

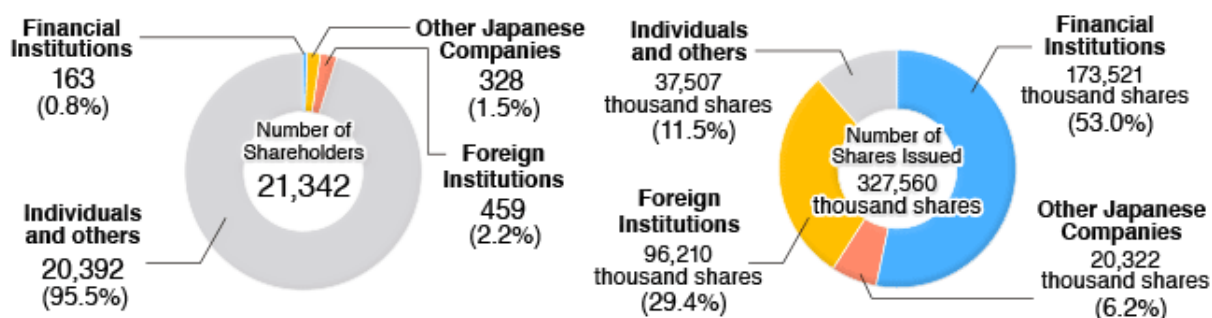


## Shareholders Information

Shares Information (as of March 31, 2015)

Total number of Shares authorized	735,030 thousand
Total number of shares issued	327,560 thousand
Number of shareholders	21,342

Share Distribution (as of March 31, 2015)



► [Stock data and other related information](#)

# Thorough Compliance

## NGK Group Guidelines for Corporate Behavior

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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.

### **Guidelines for Corporate Behavior and Thorough Observance of Behavioral Guidelines**

The NGK Group Guidelines for Corporate Behavior and Behavioral Guidelines, initiatives conducted individually, are thoroughly observed. We created awareness handbooks a paper on awareness summarizing guidelines for corporate behavior and portable compliance cards distributed to all employees including contract manufacturing employees and temporary employees, at NGK and all domestic Group companies.

Efforts are also made to ensure a thorough understanding of the Guidelines for Corporate Behavior and Behavioral Guidelines among NGK employees at training for new hires, while promotion-related training includes an explanation of the Behavioral Guidelines.

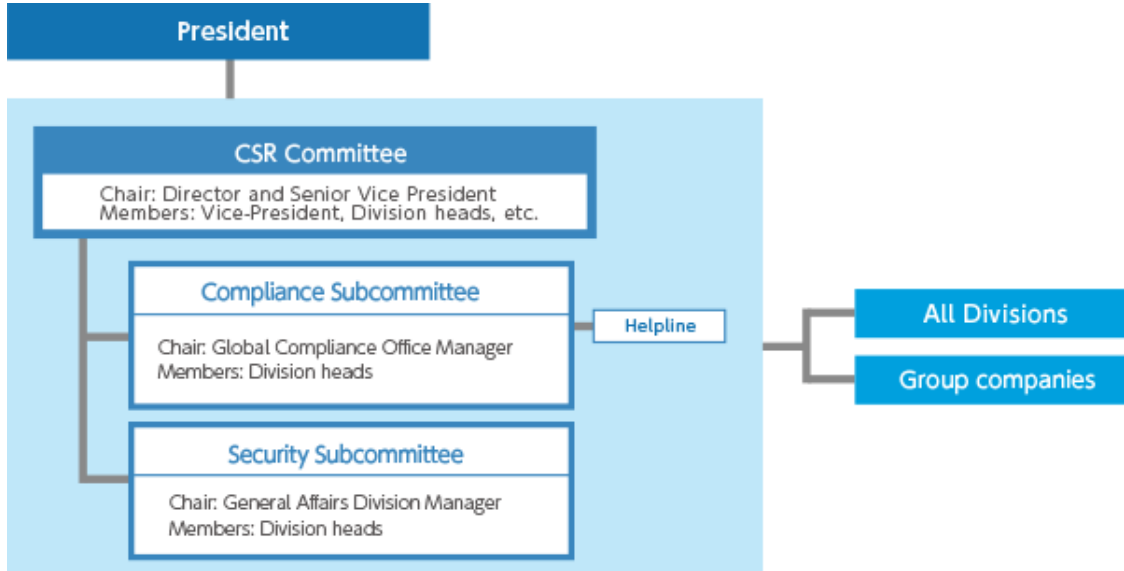
The purpose and significance of the Guidelines for Corporate Behavior and Behavioral Guidelines are also explained at CSR Talk Live events held by the NGK Group. At overseas Group companies, rules are formulated in response to the specifics of each company and country and region in light of the Behavioral Guidelines.

- ▶ [Corporate Philosophy and Behavioral Guidelines](#)
- ▶ [CSR Talk Live Dialogue](#)

# Thorough Compliance

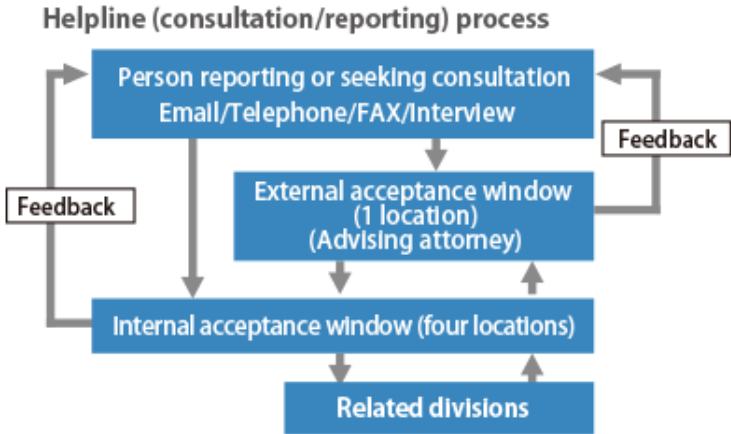
## Compliance Promotion Structure

We established the Compliance Subcommittee under the CSR Committee to ensure strict observance of laws, regulations and corporate ethics within the Group. Furthermore, we established the Security Subcommittee to respond to incidents and accidents with the potential to significantly impact the Company.



### Helpline Establishment

We established a helpline to receive inquiries and reports from employees aimed at curtailing and preventing activities contrary to the spirit of the NGK Group Guidelines for Corporate Behavior and to facilitate the quick resolution when issues occur. Each overseas Group company has its own helpline. Those seeking advice or reporting issues are promised protection under corporate regulations.





## **Thorough Compliance**

### **Promoting Compliance Education**

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We established a helpline to receive inquiries and reports from employees aimed at curtailing and preventing activities contrary to the spirit of the NGK Group Guidelines for Corporate Behavior and to facilitate the quick resolution when issues occur. Each overseas Group company has its own helpline. Those seeking advice or reporting issues are promised protection under corporate regulations.

#### **Compliance Education Conducted in Fiscal 2014**

Title	Target	Content	Conducted
Career Education	New hires	CSR basics, compliance basics	4 times (including before-assignment training)
	Mid-career	CSR basics, compliance basics	1 time
	Regularly appointed	CSR basics, compliance basics	2 times
	Q, R group promotions, transferred employees	CSR basics, compliance basics	3 times
	Newly appointed S group	CSR, Compliance, security export control, competition laws	1 time
	Newly appointed key personnel	CSR, Compliance, security export control, competition laws	1 time
	Key personnel second grade promotion	CSR, Compliance	1 time
Training for Japanese expatriates (global training)	Employees scheduled for postings abroad	security export control, competition laws, international anti-bribery regulations	1 time
Informative Meetings for Laws and Compliance	Key personnel and other targets depending on content	Group governance, thorough Subcontract Act compliance, latest insider trading regulations, crime and accident protection, risks and responses related to trademark, latest regulations pertaining to anti-bribery of foreign public officials	6 times
Competition laws compliance lectures	All corporate officers, all key personnel, salespeople	Expanding scope of Competition Laws enforcement and practical business risks	Three times (in addition, lectures were conducted using DVDs in each area)
Competition Laws training for overseas Group companies	overseas Group companies (Europe, United States) managers, salespeople, NGK temporarily-assigned staff	Training using original DVDs	1 time
Anti-bribery regulation training for overseas Group companies	Group companies (Europe) managers, salespeople	Training using original DVDs	1 time
Competition laws training	Targets depending on content	Explanation of specific behaviors and regulation for the observance of competition laws and legal content	8 times
Other training	Purchasing officers/person in charge	Subcontract Act explanatory meeting	Group companies NGK 1 time

## Thorough Compliance

### Corruption Prevention Structure

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To practice fair and transparent business transactions, the NGK Group engages in the prevention of bribery and other forms of corruption.

#### Anti-Bribery Regulation Training

As in the previous fiscal year, in fiscal 2014 foreign public officials anti-bribery regulation training was conducted as part of training for Japanese expatriates. Anti-bribery regulation training was also conducted at overseas Group companies, and training was held using originally produced DVDs in fiscal 2014.

- ▶ [Observing the Competition Laws and Other Laws and Regulations Pertaining to Business Transactions](#)

# Thorough Compliance

## Observing the Competition Laws and Other Laws and Regulations Pertaining to Business Transactions

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The NGK Group strictly adheres to competition laws (Antimonopoly Act), the Subcontract Act (Act Against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors) and other laws and regulations pertaining to business transactions. The thorough observance of laws and regulations, including the NGK Group Guidelines for Corporate Behavior and Behavioral Guidelines that mandate the observance of the Antimonopoly Act, and initiatives in Japan and overseas aimed at strengthening employee awareness of Competition Laws Compliance Rules formulated in 2011 enable us to refrain from improper conduct or transactions and engage in the creation and maintenance of fair and equal business relationships with suppliers.

▶ [Plea Agreement with U.S. Department of Justice concerning ceramic substrates for catalytic converters](#)

## Strengthening Our Compliance System Related to Competition Laws

Year conducted	Regulation Development	Creation of Internal Systems	Training
FY1997	· Formulated guidebook and briefing document for the Anti-Monopoly Act	· Required each business group to submit a Compliance Status Report on the Anti-Monopoly Act	· Lectures on the Anti-Monopoly Act by outside instructors (attorneys) (subsequently held annually)
FY2011	· Formulated Competition Laws Compliance Rules ※1		
FY2012	· Created and distributed the Competition Laws Compliance Handbook ※2 · Created and distributed an Appendix to the Competition Laws Compliance Handbook	· Established an independent committee	· In-house training led by legal department staff · Lectures by local attorneys held at overseas subsidiaries
FY2013			· Conducted briefing on the Competition Laws Compliance Handbook · Invited U.S. attorneys to lecture on Competition Laws
FY2014	· Revised Competition Laws Compliance Rules ※3 · Launched operation of a database for advanced notifications and participation reports pertaining to meetings · Launched operation of an e-mail monitoring system · Revised Competition Laws Compliance Rules at North American sales subsidiaries	· Introduced company-wide centralized supervision and reporting structures led by the Board of Directors (independent of the President) · Appointed company-wide Competition Laws supervisory managers · Enhanced the helpline	· Conducted study meetings for newly appointed directors on Competition Laws and the Companies Act by Japanese and U.S. attorneys (subsequently held annually) · Conducted study meetings on Competition Laws at overseas Group companies (corresponding to laws and regulations in each country)
FY2015	· Enforced revised Competition Laws Compliance Rules ⇒ Submission of written oaths ⇒ Confirmation of compliance status by third parties ※4 · Revised Competition Laws Compliance Rules at domestic Group companies	· The Competition Laws Compliance Program was resolved by the Board of Directors · Established the Global Compliance Office	· Conducted study meetings on Competition Laws for new employees · Distributed a Competition Laws related DVD to domestic group companies

**The NGK Group is engaged in the following initiatives to strengthen our competition laws compliance system.**

- FY2011      Established Competition Laws Compliance Rules to define compliance duties for corporate officers and employees, management structures and do's and don'ts. ※1
- FY2012      Created the Competition Laws Compliance Handbook and distributed it to all NGK officers and employees (who are in a management positions or are general staff in divisions that are relevant to competition laws). ※2
- FY2014      Revised the Competition Laws Compliance Rules, introducing a mechanism for the effective operation, management and verification of a competition laws compliance program via a company-wide centralized supervision and reporting structures led by the Board of Directors. ※3

FY2015 Worked with compliance specialists from PricewaterhouseCoopers to confirm from a neutral point of view the status of a competition laws compliance program and a company-wide centralized supervision and reporting structures. ※4

To promote the use and thorough awareness of the Competition Laws Compliance Rules and Competition Laws Compliance Handbook, we conducted training related to competition laws and meetings to explain rule revisions. At overseas group companies, training was conducted using original DVDs.

## Competition Law-Related Training

	Times conducted	Content
Competition laws training for directors	1	<a href="#">Corporate governance (director training)</a>
Lectures by Outside Instructors	3※	Expanding scope of Competition Laws enforcement and practical business risks
Training at overseas Group companies	1	Competition laws details, execution status and important practical points for observing these laws.
Competition laws training conducted by internal lecturers	10	Basic knowledge of competition laws and important practical points for observing these laws

Note: Additional lectures were conducted using DVDs in each area.



## CLOSE UP!

### Competition Laws Compliance Lectures

As one component of education aimed at strengthening NGK's Competition Laws compliance structure, an attorney was invited as outside instructor to conduct Competition Laws compliance lectures at three venues for corporate officers, key personnel and salespeople. Approximately 480 people attended. Employees unable to attend these events received a DVD version of the lecture. All key personnel and salespeople in Japan received these lectures. Original DVD training was conducted training at overseas Group companies in the United States, Europe and South Africa, which focused on practical points for compliance with

Competition Laws as well as Competition Laws details and execution status.  
 Competition Laws training will continue to be conducted next year and beyond in Japan and at overseas Group companies in an attempt to further inculcate compliance awareness and knowledge.



### Competition Laws Compliance Lecture Status

Explanations were provided with respect to individual actions, and compliance and leniency that should be adopted by the company based on the theme of “expanding scope of Competition Laws enforcement and practical business risks,” in light of the severity of the U.S. authorities’ response to cartels and trends in China and India.

Date	Venue	Attendees	Notes
Dec. 8, 2014	Headquarters	All corporate officers	Lecture
Dec. 25, 2014	Headquarters	372 key personnel and salespeople	Lecture
Mar. 9, 2015	Tokyo	75 key personnel and salespeople	Lecture
Feb.–Mar. 2015	Domestic manufacturing and sales bases	key personnel and salespeople*	DVD

\*Key personnel and salespeople unable to attend the lectures.

### Lecture Conducted by Yusuke Nakano, Attorney at Law (Anderson Mori & Tomotsune)

Yusuke Nakano is a partner at Anderson Mori & Tomotsune mainly engaged in the areas of antitrust, business dispute negotiation and resolution, mergers and acquisitions, and intellectual property. He is an antitrust specialist with a wide range of experience in cartel investigation and merger control.



### Legal Department Individual Support for Business Divisions and Domestic Group Companies

In order to enhance compliance with business related laws including the Subcontract Act, the NGK Legal



partment has been extending support, such as conducting individual training and briefing sessions for iK's business divisions and domestic group companies. The Legal Department offers a variety of support response to requests from business divisions and domestic group companies, including consultations, preparation of necessary documentation and confirmation of compliance situations. The Legal Department, fiscal 2014, continued to support business divisions and domestic group companies such as by preparing necessary documents to meet the needs of each individual division or group company.

## Thorough Compliance

### Strict Adherence to Laws and Regulations Relating to Export Management

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As part of its thorough compliance efforts, NGK is engaged in the strict adherence to laws and regulations relating to export management. Behavioral Guidelines within the NGK Group Guidelines for Corporate Behavior establish the observance of security export control-related regulations, while management and training is conducted based on internal rules and the Export/Import Handbook.

#### Using Databases to Conduct Comprehensive Inspections and Customs Management

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. Furthermore, export management with respect to the export of certain products is conducted using specified export declaration systems.

In fiscal 2014, a Logistics Management Group was established in the Purchasing Department to simplify handling of export and import-related inquiries, strengthen management structure for customs clearance of goods being imported and exported and upgrade internal training.

Also in fiscal 2014, voluntary inspections were conducted pertaining to storage status based on laws and regulations and the integrity of information contained in the relevant written documentation of each department for items already imported based on the import cargo management ledger.

#### Familiarization with the Export/Import Handbook

NGK also made efforts toward thorough compliance with the Export/Import Handbook, which was published in fiscal 2012 and summarizes items for the observance of export/import customs clearance regulations. In addition to publishing this handbook on the company intranet where it can be viewed throughout the entire company, we provide training to spread awareness of the spirit of handbook through study meetings related to export/import management conducted internally in each business division.

Export/Import management study meetings are held one or more times per year targeting relevant staff in divisions responsible for export and import activities. In fiscal 2014, these meetings were held in 24 divisions over a three-month period with about 360 employees in attendance.



## Thorough Compliance

### Privacy Policy and Structure

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The NGK Group has established internal rules for privacy policy management in an effort to handle, manage and protect personal information provided by customers.

▶ [About NGK's privacy policy](#)

# Thorough Compliance

## Information Security Training

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The NGK Group CSR Committee's Security Subcommittee takes responsibility for supervising overall information security, and supports the General Affairs and Information Systems divisions based on the Basic NGK Group Information Security Policy, in an attempt to properly manage and operate information assets.

▶ [Basic NGK Group Information Security Policy](#)

### Formulation of Basic NGK Group IT Security Standards

The rapid advance in information communication technologies and devices has made the quest for consistent IT security on a Group-wide level an urgent concern, thus in 2010 we formulated the NGK Group IT Security Standards with the goal of developing an IT security structure based on commonly shared Group standards and enhancing IT security.

Every year, each Group company drafts action plans for the enactment of countermeasures in an attempt to systematically strengthen security. Through these countermeasure action plans, NGK confirms initiatives at each Group company and provides guidance as necessary.

### Enhanced Software Management

In recent years, software management from the perspectives of security and compliance has gained importance, thus the entire Group is focusing efforts on software management.

In fiscal 2014, we created Software License Management Guidelines, which were distributed throughout the entire Group. A questionnaire was distributed to inspect management status and Group companies where management was insufficient were directed to make improvements during the fiscal year. Visits were conducted at some Group companies to confirm management status and provide guidance.

### Information Security Training

The following training sessions are conducted throughout the year to ensure strict adherence to information security amongst all employees.

- Training for newly hired employees
- Training for newly promoted supervisors and key personnel
- e-Learnings targeting all employees

# Thorough Compliance

## Status of Law and Regulations Violations

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No cases were reported this year.

# Risk Management

## Basic Approach

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The NGK Group Guidelines for Corporate Behavior were announced within and outside the company as our basic stance toward the realization of the NGK Group corporate philosophy of creating new value by providing products and technologies that contribute to a better social environment. This includes initiatives that strictly observe the protection of third party rights and corporate assets and trust through the practice of risk management.

▶ [Corporate Philosophy and Guidelines for Corporate Behavior](#)

### Risk Analysis and Response

The NGK Group assumes six categories of company-wide risks pertaining to compliance, information, employment and labor, making an effort to avoid and prevent these risks through deliberation of budgets and plans and overall examination and analysis in the course of execution and settlement processes at Strategy Committee and Executive Committee meetings.

Business continuity planning (BCP) was formulated to ensure the continuation of critical business functions in the event of large-scale natural disasters including wind and flood damage and earthquake, massive transportation accidents or other emergency situations, which will be addressed by the Central Disaster Prevention and Control Headquarters and BCP Countermeasures Headquarters.

### Company-wide Shared Risks

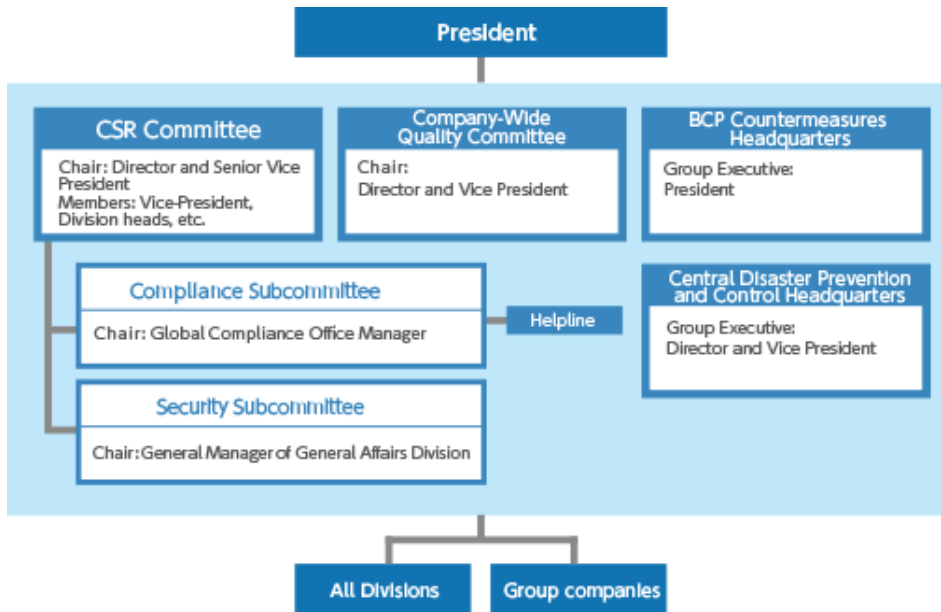
Category	Risk	Category	Risk
1.Compliance	Legal/Regulatory infractions / improper accounting	3.Employment/Labor	Labor troubles
	Misappropriation by individuals		Labor accidents
	Bribery		Traffic accidents
	Violation of intellectual property rights		Long-working hours/health management
	Human rights violations/harassment		Support for unskilled labor
	Trouble with local communities	4.Incidents/Accidents /Disasters	Incidents and accidents
	Support for antisocial forces		Natural disasters
2.Information	Information systems breakdown	5.Environment	Environmental management trouble
	Leak of proprietary or personal information		EMS insufficiency
	Inappropriate use of SNS	6.Product safety	Defective products

# Risk Management

## Risk Management System

NGK operates a risk management promotion structure led mainly by the CSR Committee. A person of responsibility and response structure is established for each risk category in an effort to improve risk response capabilities and risk prevention activities.

### Risk Management System



### Risk response

Normal operations	Follow up by CSR Committee and other committees	
Emergency situation	Legal/Ethical or incident/accident response	CSR Committee is in charge. Initial response by five people chosen ahead of time to handle emergencies +relevant corporate officers.
	Quality-related accidents	Company-Wide Quality Committee is in charge
	Disaster-related incidents	Central Disaster Prevention and Control Headquarters and BCP Countermeasures Headquarters are in charge

### Identifying and Preventing Risks Based on the CSA Questionnaire

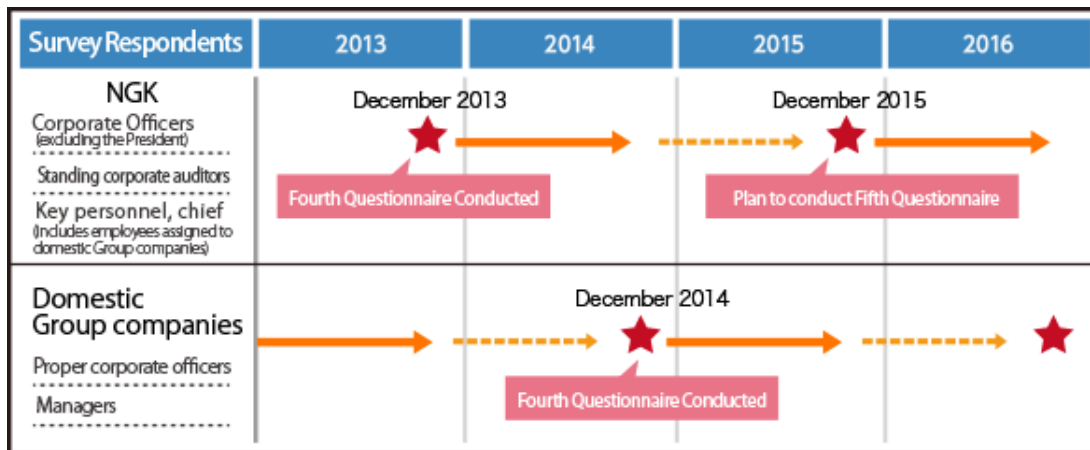
As one part of enhanced risk management structure, NGK and domestic group companies conduct the Control Self-Assessment (CSA) questionnaire, which tests the knowledge of respondents regarding potential risks and their impact with the aim of ascertaining and avoiding various potential risks arising from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

Questionnaires targeting NGK and domestic Group companies are distributed every two years. In fiscal 2014, domestic Group companies received the questionnaire to follow-up on risks identified by the CSR Committee.

The CSA questionnaire, which also functions to raise awareness regarding attempts to prevent and accurately respond to risks, will continue to be implemented going forward.



## CSA Questionnaire Status



## Risk Management Measures Based on the CSA Questionnaire

Company-wide risks Note: Human Resources, Legal, General Affairs, Purchasing, Information Systems, Environmental Management, Company-wide Quality Management and Construction and Maintenance departments

Major Risks	Countermeasures
Compliance	Enhance competition laws and bribery compliance framework (including overseas Group companies)
Information	Prohibit cameras, require confidentiality agreements
Employment and labor	Conduct organizational diagnostics, manage working hours, provide guidance to people and workplaces working long hours/overtime
Incidents, accidents and disasters	Comprehensive disaster-preparedness drills, BCP drills, disaster planning in each area
Environmental/Product safety	Patrols and drills, follow ups at Quality Committee and Quality Review meetings

## Legal Risk Management at Overseas Group Companies

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

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

In fiscal 2014 as in the past, risk management status was ascertained and reporting content was checked through the legal risk management report.

Consultations from overseas locations were handled by lawyers and legal departments to avoid risks.

# Risk Management

## Business Continuity Planning (BCP) Initiatives

### BCP Initiatives

NGK promotes Company-wide Business Continuity Planning (BCP) through the establishment of the Business Continuity Planning (BCP) Countermeasures Headquarters, an organization for leading business continuity and quick recovery in the event of a large-scale natural disaster, led by the President. Countermeasure initiatives include the establishment of multiple bases and procurement points, building and equipment reinforcements and employee safety assurance.

### Fiscal 2014 Initiatives

Established a system able to quickly ascertain damage status	Expanded installation of emergency communication methods at domestic Group companies
Conducted various training activities	Conducted drills to establish a timeframe standard (5–6 hours after a large-scale earthquake has occurred) to ascertain detailed status of damage to NGK Group employees, manufacturing facilities, infrastructure and headquarters function and determine whether emergency items can be supplied to customers. Issues and deficiencies were identified and used to improve BCP action plans.

### Initiatives Going Forward

We augment BCP efficacy through a variety of training and more advanced training scenarios, expanding scope of training to include more employees in an effort to improve initial response and continue business activities.



BCP training (BCP restoration measures meeting)



President Taku Oshima provides guidance as leader of the BCP Countermeasures Headquarters

# Risk Management

## Intellectual property management

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The NGK Group encourages the creation of intellectual property rights with 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.

### 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 2014, we invited an university professor to conduct an awareness program for managers on innovator intellectual property management. Approximately 200 employees and corporate officers attended the intellectual property management seminar, which discussed problematic cases and their countermeasures with respect to the use of intellectual property strategies by the Japanese manufacturing industry amid the rise of developing nations.

### Promoting Intellectual Property Training

#### 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 2014, presentations on patent map utilization were held twice, with a total of six employees taking part. 77 employees participated in e-learning. Furthermore, interactive-style small group seminars were held ten times primarily for young engineers in the research and development and business divisions. These seminars were attended by a total of 73 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.

#### <Participant Feedback on Interactive-Style Small Group Seminars>

#### **“Patents” Led to Change in Thinking About New Product Development**

**Risako Ito SOFC Project, Corporate R&D**

With a sense that the creation of a patent network was necessary for the development of new products, I decided to participate in the patent-related small group seminar. After learning about the patent system, the necessity of patents and reviewing case studies related to the notice of reasons for refusal, I felt I had gained practical knowledge and response capabilities. The small group seminar format enabled participants to comfortably ask questions about points they don't understand during the presentation.

This seminar gave me a new awareness of the importance of patents. As a result, I now engage in my work with a daily awareness of generating ideas that might be patentable.



## Employee Invention Reward System to Provide Incentives for Employee Inventions

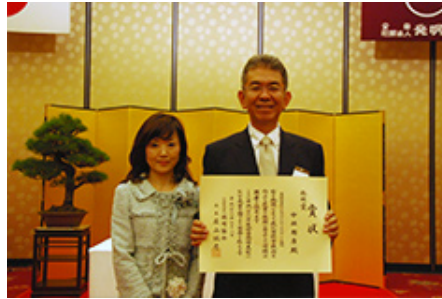
We established an employee invention compensation system comprised of application incentives, registration incentives and performance incentives to encourage employee inventions. Performance incentives are made up of usage at NGK, licensing, transfer and cross-licensing; usage at NGK is for patents used 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 ceramics products used in semiconductor manufacturing equipment has been distributed to the inventors.

## NOx Sensor Wins National Commendation for Invention

NGK's high-precision automotive nitrogen oxide (NOx) sensor won the Invention Prize in the first category of the 2014 National Commendation for Invention held by the Japan Institute of Invention and Innovation. The award ceremony was conducted at a hotel in Tokyo which was attended by inventor Kunihiko Nakagaki from NGK Europe GMBH (Germany), where he was temporarily assigned.

NGK was the first company in the world to develop the award-winning NOx sensor for automotive applications. The NOx sensor qualified for the employee invention reward system. The award was conferred in recognition of the substantial contribution this unique and advanced product makes to the realization of clean diesel vehicles.



## Response to Intellectual Property Risks in China

In response to intellectual property risks in China, we implemented measures to claim to right of prior use through the acquisition of certified dates via a Chinese notary public at all factories for the purpose of obtaining evidence for product production technologies against the leak of technologies or third party applications in the Chinese market. Furthermore, along with required procedures related to the employee invention reward system, we have formulated and introduced the same unique NGK reward schemes as in Japan.

# Respect for People and Ensure Comfortable Workplace

## Basic Approach

In the NGK Group Guidelines for Corporate Behavior, our relationship with employees is based on Respect of Humanity and Assurance of Comfortable Working Environment and defined as follows.

**We will hire and treat our people in a proper and fair manner and will provide a safe and pleasant working environment in which our people can work comfortably without sacrificing their family life.**

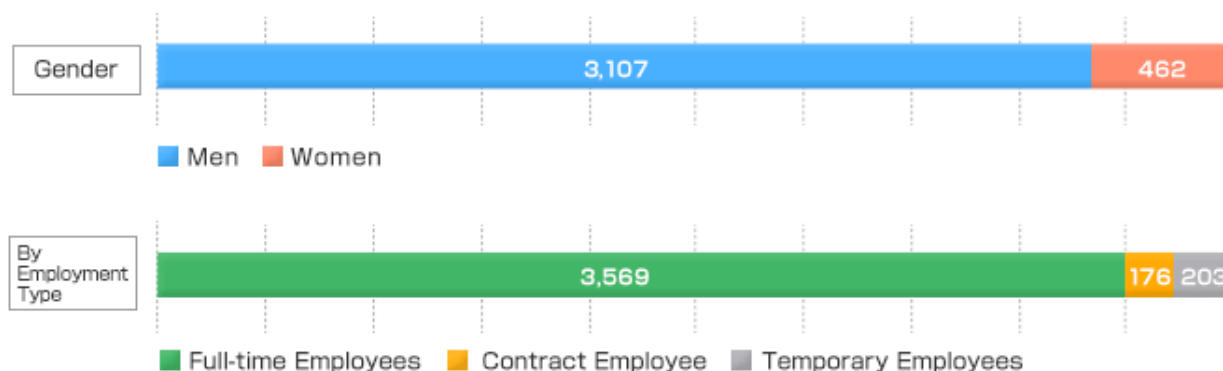
**We will make available the place and opportunities that can be challenged by people with versatile talent and will support the development of human resources through acquisition of knowledge and expertise.**

**We will prevent any bullying, discrimination, harassment or other acts that violate human rights and, if there is any violation, we will take appropriate actions in an expeditious manner.**

### NGK Group Number of Employees

	FY2010	FY2011	FY2012	FY2013	FY2014
Number of Employees	11,666	12,372	13,159	13,210	16,217

### NGK Employee Status in Fiscal 2014



Average age	Average number of years worked	Turnover ratio	Average salary
38.8 years old	14.7 years (Men: 14.6 years / Women: 15.5 years)	1.7%	7,370,000 yen

### Number of New Hires Remaining at the Company (3 years)

	Total	Men	Women
New graduate hires in 2012	102	91	11
Retention in 2015	97	87	10

# Respect for People and Ensure Comfortable Workplace

## Health and Safety

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Aiming for zero industrial accidents, NGK introduced Occupational Safety and Health Management System (OSHMS) in fiscal 2007 as a mechanism for the ongoing systematic implementation of safety and health initiatives based on company-wide safety and health policies. 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.

### Companywide Health and Safety Policy

'Securing the safety and health of each employee is the very foundation of a company's operation and existence'

1. Comply with Occupational Safety and Health Law and Company Regulations.
2. Engage in activities in line with the OSHMS to continuously raise the safety and health standards.
3. Promote safety and health activities under good communication with employees.
4. Eliminate the risks of hazards and prevent accidents to provide a pleasant workplace.
5. Prevent employees' health disorders and promote health enhancement activities.

### Enhancing Safety and Health Activities

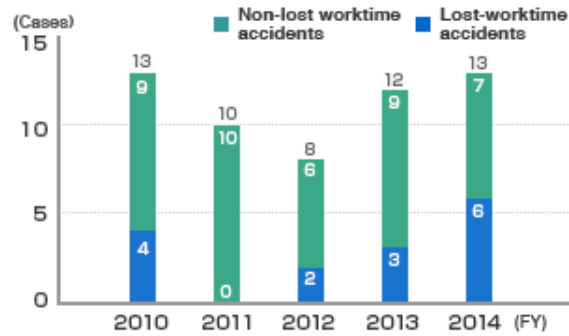
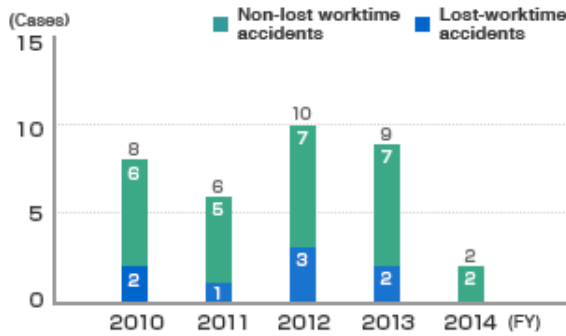
After an accident at the Chita Site in July 2012, NGK formulated a three-year action plan and strengthened safety measures. In fiscal 2014, we continued the exhaustive risk assessment which we began in fiscal 2012, formulating measures sequentially against the risks picked up from operations which are based on the degree of importance and danger. Responding to this accident with sincerity, we expanded the scope of assessment into areas such as immediate responses, 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 2014 marks the final year of the three-year action plan and we have already completed 100% 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

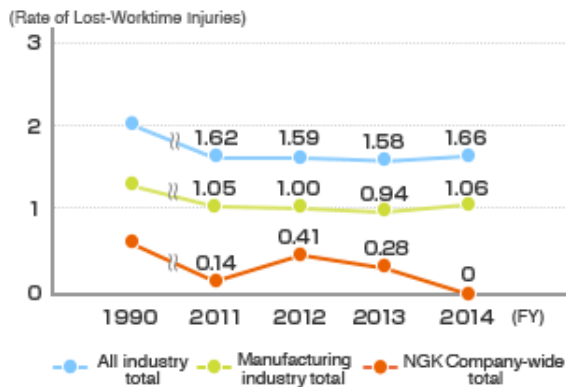
We also engaged in training to heighten safety and health awareness among employees. In fiscal 2014, we conducted training on residual risks identified during risk assessments intended to prevent workplace accidents. Experiential safety education is conducted on a monthly basis for employees with limited experience using a facility outside the company enabling participants to experience hazardous situations. We also put together a training program conducted for new hires using a simulated experience facility inside the company. In addition, lectures were conducted by managers responsible for safety and health at other companies and activity exchange meetings were held with other companies. Safety and health training was also conducted targeting non-regular employees. In addition to OJT for contract workers, accident prevention and traffic safety trainings are conducted one time a few months after an employee is hired as a company-wide follow-up training effort.

**Work-Related Accidents (NGK)**

**Work-Related Accidents (Domestic Group Companies)**



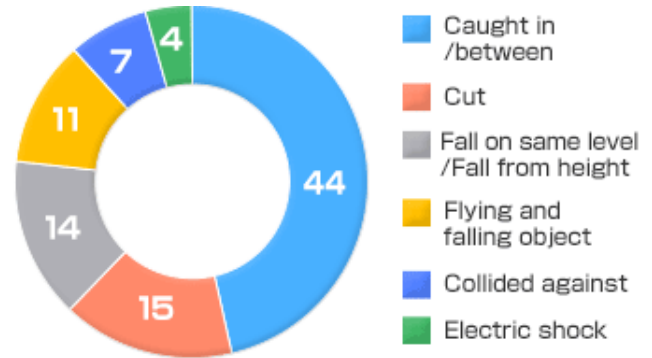
**Rate of Lost-Worktime Injuries (NGK and Domestic Group Companies)**



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

$$\text{Rate of lost-worktime injuries} = \frac{\text{No. of lost-worktime injuries}}{\text{Total actual working hours}} \times 1,000,000 \text{ hours}$$

**Work-Related Accidents by Type (past 7 years)**



**Rate of Occupational Disease (NGK)**

FY2010	FY2011	FY2012	FY2013	FY2014
0	0.71	0.41	0.14	0

**Number of Deaths from Work-Related Accidents (NGK and Domestic Group Companies)**

	FY2010	FY2011	FY2012	FY2013	FY2014
(Person)	0	0	1	0	0

**CLOSE UP!**

**Heightening Safety Awareness with the Experiential Classroom**

NGK Ceramics Suzhou (China)

To heighten safety awareness among employees, one room at the plant was renovated to create an experiential classroom. Special equipment was used to simulate the experience of getting caught or pulled



into machinery and electric shocks to teach about dangers posed by equipment and work activities. As of July 2014, approximately 1,200 employees have participated in the experiential classroom. In addition to targeting manufacturing divisions, at the end of February 2015, these activities were expanded to include all employees, including office workers. Heightening safety awareness facilitates solid prevention of workplace accidents and avoids a variety of potential risks in daily work routines.



Employee learning about the dangers of getting caught in machinery



Experiencing the dangers of falling down. Many employees say this provides a better understanding of dangers than simply studying a manual at their desks.

## Company-wide Deployment of 5S Activities

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. Successful examples were reported to the Company-wide Safety and Health Committee and deployed throughout the company

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

### 5S Examples in Administrative Divisions



Improvement Case Study 1



Improvement Case Study 2



Improvement Case Study 3

## Following Up with Employees Working Long Hours

NGK provides employees working long hours, including non-regular and part-time employees with ongoing opportunities to meet with industrial doctors for health consultations and exams.

The results are reported to and followed up on by Safety and Health Committees at each worksite.

### Consultations by Employees Working Long Hours

Consultations (people)	FY2011	FY2012	FY2013	FY2014
General employees	135	125	118	63
Managers	149	107	46	46

Note: Figures are total number of people. Counted as 80 hours/month, 300 hours/six months.

## Enhanced Safety and Health Management

### Working Hour Trends

Hours worked (per person)	FY2010	FY2011	FY2012	FY2013	FY2014
Annual fixed working hours	1,919	1,919	1,919	1,919	1,919
Annual actual working hours	2,098	2,103	2,089	2,087	2,077
Average overtime work per month	23.7	24.6	24.1	24.4	24.5

Aiming for zero accidents, NGK is promoting the creation of an Occupational Safety and Health Management System (OSHMS). Under the Company-wide Safety and Health Committee, we have established Safety and Health Committees at each site, department, factory and workplace, applying a PDCA cycle, with the aim of systematic and organizational improvement of occupational safety and health activities.

NGK provided guidance on preventing accidents, the recurrence of accidents and conducted safety checks at the request of Group companies where accidents had occurred in fiscal 2014. Additionally, we also conduct a variety of activities focused on common activities in the daily workplace.

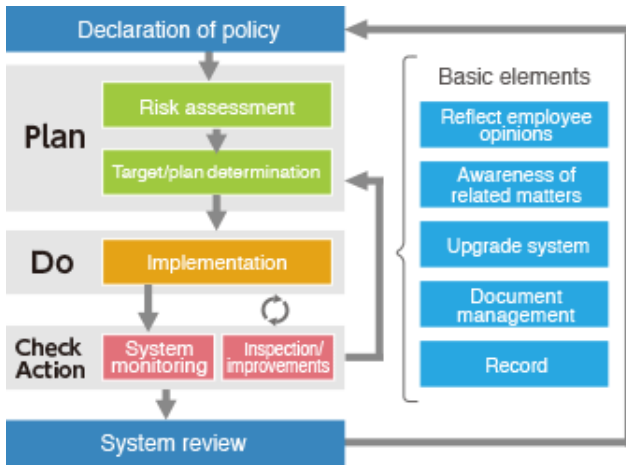
Going forward, based on OSHMS, NGK will continue to focus efforts on improving the working environment.

### Worksites With External Certification in Safety and Health Management Systems (JISHA system OSHMS)

Worksite	Year Acquired	Renewed
NGK	Nagoya Site	2008 2014 Acquired certification after second renewal inspection
	Chita Site	2009 2013
	Komaki Site	2009 2015 Second renewal inspection scheduled



### PDCA Cycle



## Promotion of Activities Supporting Mental and Physical Health

### Four Types of Care for Mental Health

NGK emphasizes 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 reduction of work performed outside normal working hours.

We also deploy ongoing activities focused on the Four Types of Care recommended by the Ministry of Health, Labour and Welfare. In fiscal 2014, we created the Mental Health Creation Plan

### Four Types of Care



### Position-Based Mental Care Education

We conduct ongoing position-based mental care education. Again in fiscal 2014, we provided education for new hires, regular employees and managers totaling 442 people. The education of managers focused on practical study, not only learning from lectures, but also through support for people in the workplace who are mental and practicing methods of careful listening\*1 and autogenic training\*2.

In addition, 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.

\*1The careful listening method: Practical instruction involving two people role play as listener and speaker while pretending to discuss a problem. The objective is to better understand the speaker (subordinates), build better relationships and eliminate stress.

\*2The autogenic training method: Training method for physical and mental relaxation aimed at recovering from physical exhaustion, easing stress, improving work productivity and mitigating depression and anxiety.

**Position-Based Mental Care Education is conducted at NGK.**

(People)

	FY2010	FY2011	FY2012	FY2013	FY2014
New hires	85	97	103	88	56
General employees	179	178	227	293	291
Managers	39	40	63	95	95

## Elimination of Harassment

The NGK Group deals strictly with harassing behavior (for example, sexual harassment or power harassment) by employees that is injurious to individual dignity and interferes with workplace order and business execution.

Efforts are made to respect the diversity, character and individuality of each of our employees, while avoiding discrimination based on one's birthplace, nationality, creed, religion, gender, race, ethnicity, age, physical abilities, medical history, education or social position. Furthermore, we do not allow forced labor, child labor or any other forms of inhumane conduct. In addition to holding lectures aimed at preventing harassment, we also cover the prevention of harassment in [compliance training](#) to inculcate a thorough awareness among employees at all levels and positions. We established the helpline for consultation and reporting of harassment in the workplace.

### NGK Group Harassment Elimination Activities

	FY2010	FY2011	FY2012	FY2013	FY2014
Lectures held	6	6	6	4	6
Participants	210	227	229	189	203

- ▶ [Helpline system](#)
- ▶ [Compliance training](#)

# Respect for People and Ensure Comfortable Workplace

## Diversity

It is NGK Group basic policy to recruit human resources and offer stable employment and equal opportunities regardless of race, nationality, creed, gender, or physical abilities. 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

### NGK New Graduate Hires

Note: Excluding new graduates planned to transfer from temporary to regular positions

(People)

Joined company	University graduate			Junior college/Vocational School	High school graduates
	Total	Men	Women		
April 2011	54	46	8	0	44
April 2012	60	50	10	0	42
April 2013	62	53	9	0	25
April 2014	36	28	8	0	20
April 2015	38	29	9	0	30

### NGK Mid-Career Hires

(People)

Joined company	Total				
	Total	Men university graduates	Women university graduates	Other men	Other women
April 2010 - March 2011	54	14	8	29	3
April 2011 - March 2012	82	30	6	37	9
April 2012 - March 2013	53	17	15	21	0
April 2013 - March 2014	7	3	1	3	0
April 2014 - March 2015	49	15	4	30	0

## Promoting the Success of Women

### Appointment of Female Managers (Management Staff)

The NGK Group strives to increase opportunities for motivated and skilled people to enhance their skills regardless of gender. We are also engaged in the creation of an environment that makes working easy for women. NGK women key personnel (managers) increased from eight to 12 in fiscal 2013, and the addition of two more in fiscal 2014 resulted in a total of 14 people.



### Promoting Use of the System for Transferring to General Employment Jobs Among Women

NGK has instituted a System for Transferring to 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 60 employees transferring from office work to general employment jobs as of fiscal 2014.



### Ratio of women employees

	FY2010	FY2011	FY2012	FY2013	FY2014
Ratio of women employees *1	13.3%	13.1%	13.4%	13.3%	12.9%
Ratio of women key personnel *2	1.1%	1.1%	1.0%	1.5%	1.8%
Ratio of women working general employment jobs *3	16.8%	16.6%	16.9%	16.6%	16.1%

\*1. Percentage among all employees \*2. Percentage among all key personnel \*3. Percentage among all general employment workers

### Certified as a Company Promoting Women's Activities by the City of Nagoya\*

To support both work and childrearing efforts, NGK revised its system for employees returning to the workplace and expanded the employment and occupational scope with regard to women. In recognition of these efforts, we were certified as a Company Promoting Women's Activities by the city of Nagoya in January 2012. From July 2014, we raised the annual quota for half-day paid leave from 14 to 20 times per year. We also introduced a time unit-based annual paid leave system enabling employees working shortened hours to take off time adding up to one day's worth of paid leave per year. The promotion of these initiatives led to our being recertified in fiscal 2014.

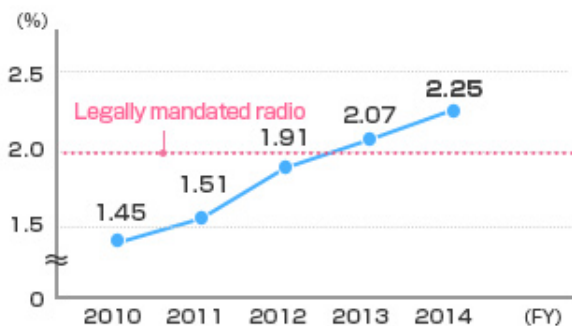
\* Note: System for certifying companies that conduct outstanding initiatives enabling women to actively participate in the workplace in the areas of (1) awareness improvement, (2) work-life balance and (3) promotion of women's active participation.



## Expanding Employment of the People with Special Needs Beyond the Legally Stipulated Rate

The NGK Group is engaged in initiatives to expand employment of people with special needs. As a result of promoting employment by accepting students from special needs schools as trainees and hiring participants from employment seminars for people with special needs, the ratio of people with special needs employed by NGK at the end of fiscal 2014 was 2.23%, which exceeded the legally mandated ratio of 2.0% instituted in April 2013 for the second straight year.

### Percentage of Employees with Special Needs (NGK)



## Various Systems Attempting to Make Use of Diverse Human Resources

The NGK Group employs systems promoting the use of human resources based on the idea that human resource diversity is linked to changes in organizational culture.

### Human Resources Utilization Systems Aligned with 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, where open positions are announced internally and eligible applicants appointed, as well as a system for career track registration 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.

### Internal Job Application System Results

Fiscal year	2010	2011	2012	2013	2014
Applications (Cases)	5	16	3	2	19
Recruits (People)	5	27	4	3	23
Applicants (People)	4	9	8	3	12
Successful applications (People)	3	3	4	1	8

### Career Follow-Up System



Fiscal year	2010	2011	2012	2013	2014
Registered (People)	1	2	7	5	2
Transferred (People)	0	2	2	0	1

### Promoting the Regular Employment of Manufacturing Contract Employees

NGK established a system for converting manufacturing contract employees into regular employees, which was used to convert 27 employees to regular status in fiscal 2014. Excellent employees are identified through biannual human resource assessments and recommended by division heads to sit for the regular employee promotion exam. Those who pass the exam become regular employees.

Excellent workers out of the ones who transfer to regular employment positions also have a chance for promotion to two higher ranks of company qualification. In fiscal 2014, four employees were promoted under this system.

#### Transfers from Contract Manufacturing Worker to Regular Employee

Fiscal year	2010	2011	2012	2013	2014
Converted employees	14	23	17	4	27

#### Double Promotions

Fiscal year	2010	2011	2012	2013	2014
Promoted employees	11	11	11	7	4

### 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, leading to steady achievements in younger employees remaining at the Company.

### System for Rehiring Employees Including Half-Time Employment Option

NGK introduced a rehiring system after retirement for regular employees in 2001, and for management staff in 2007. In fiscal 2013, we upgraded this system in accordance with the work style of senior employees by offering full-time or half-time employment options. As of the end of fiscal 2014, we had rehired 150 employees, of which 33 people were half-time or non-regular employees.

#### NGK Rehiring System

Fiscal year	2010	2011	2012	2013	2014
Rehired employees	268	222	213	196	150
Of which are half-time employees	71	53	65	62	33
Ratio of rehired employees among all employees*	7.5%	6.1%	5.8%	5.3%	4.0%

Note: All employees excluding contract and part time employees.

# Respect for People and Ensure Comfortable Workplace

## Work-life balance promotion

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To promote a work-life balance and reduce long working hours, in fiscal 2011 NGK formulated specific rules based on initiatives that had been conducted by labor-management over the previous three fiscal periods.

### Seven Rules for Promoting a Work-Life Balance

1. No more than 80 hours of overtime work per month
2. Overtime work exceeding 45 hours per month limited to six months each year
3. At least six days of paid leave must be taken each year
4. No more than 300 hours of overtime work per six months
5. In principle, there will be no overtime work on refresh days (Wednesdays and Fridays). If overtime is necessary, a prior permit application must be submitted.
6. In principle, work must not be performed for more than seven days straight. If work in excess of seven days straight is necessary, a prior permit application must be submitted.
7. Written applications must be submitted when requesting employees work on holidays or late at night.

### Initiatives to Limit Overtime Work

If, for any reason, overtime work in excess of 45 hour per month appears likely, the reason for the increase in overtime work must be confirmed through prior labor-management consultations to distribute time periods and workloads or increase the number of employees.

### Countermeasures for Mitigating Increased Overtime Working Hours

Each year, the NGK discloses hours worked and paid leave utilization statistics to its Worker's Union for discussion and countermeasure deliberation purposes.

For employees identified as working long hours, the Worker's Union meets with each workplace individually to discuss these details and devise countermeasures.

Employees who have been temporarily assigned overseas must submit in writing the reason for working long hours and are required to submit to a health check.



### Results

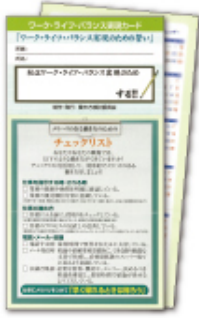
Significant reduction in employees working more than 45 hours of overtime per month

Reduced the number of employees working more than 600 hours of overtime per year for three consecutive fiscal periods

A record 99.7% of Worker's Union members utilized six or more days of paid leave.

### Work-Life Balance Actualization Card

The Human Resources Department and the Worker's Union hold work style examination committee study meetings 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.



The Work-Life Balance Realization Card, which raises awareness about work style options and the increased utilization of paid leave, was created based on the following three elements.

- Oath for realization    Employees fill in their individual oaths
- Checklist            Self-check pertaining to individual employee work styles
- Paid leave calendar    Employees fill in the days they plan to take a paid leave in fiscal 2014

### Rate of Paid Leave Utilization at NGK

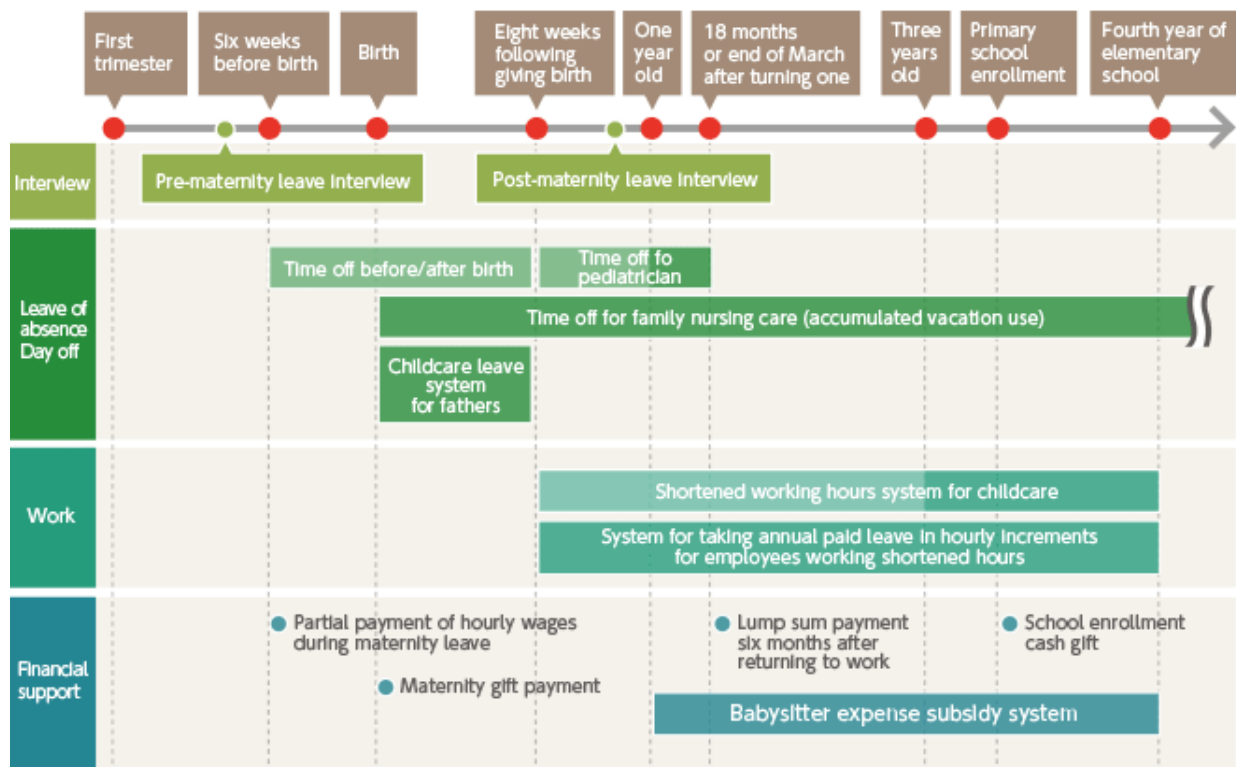
Fiscal year	2010	2011	2012	2013	2014
Days granted	17.1	17.1	17.6	17.8	18.4
Days used	10.3	10.5	10.9	11.2	12.7
Utilization rate	60.5%	60.6%	62.0%	62.6%	69.1%

### Enhancing Systems Supporting Working Caregivers

NGK is enhancing systems to create an environment that makes it easy for employees to work while providing child or nursing care. In terms of childrearing support, we make an effort to provide support measures that consider both working hours, such as the shortened working hour system, as well as the provision of financial support. In terms of caring for a sick or elderly family member, in addition to a leave of absence system, employees can take multiple days off to care for the same family member, or take a leave of absence for different reasons of caregiving. We are enhancing systems enabling employees to flexibly choose working styles.

### Childcare Support System Users Are on the Rise

In 2010, NGK established new systems related to human resources and is engaged in expanding childcare support measures. In addition to considerations to working hours, from a financial point of view, we increased the amount of maternity gift payments, established a gift payment for starting elementary school and a babysitter expense subsidy system. We also created a system for preferentially allotting employee parking spaces within the vicinity of the headquarters to employees raising children.



## Overview of Childrearing Support Measures and Users

### Systems that Exceed Legal Requirements

System name	Details	2012	2013	2014
Childcare leave of absence	Last day of the month in which the child turns 18 months old or the end of March after the child turns one, whichever is longer (Legal requirement: until child is 18 months old)	16	21	26
		Of which returned to work: 14 people (87.5%)	Of which returned to work: 19 people (90.5%)	Pending
		Ratio of employees still working a year after returning to work: 100%	Pending	
Shortened working hours during childrearing	Six hours or seven hours per day for employees until the fiscal year when their children start fourth grade in elementary school (Legal requirement: Only for children not yet three years old)	33	38	43

### Systems Operated Independently by NGK

System name	Details	FY2012	FY2013	FY2014
Lump sum payment six months after returning to work	Lump sum payment of reduced salary accrued during maternity leave received six months after returning to work	11	13	20
System for taking annual paid leave in hourly increments for employees working shortened hours	Paid leave can be taken in hourly increments by employees working shortened hours (one day). Convenient for those with children who suddenly develop a fever and need to leave early	Unintroduced	13	20
Childcare leave system for fathers	Unused annual paid holidays can be used for childcare leave of absence	9	8	11
Pre-maternity leave interview	Interview attended by employee, HR and supervisor to provide the employee with peace of mind while on maternity leave and ensure both sides have proper understanding of procedures related to systems supporting childcare and work.	15	23	25
Interview before returning to work	Supports smooth transition back to work focused on work details and work style.	13	14	14
System for accompanying family on overseas assignment	Enables employees to take a leave of absence of up to two years and six months while accompanying a spouse posted overseas for work.	-	1	1
Maternity gift (family fund)	A ¥50,000 gift when a child is born	156 cases	165 cases	183 cases
Elementary school enrollment gift (family fund)	A ¥50,000 gift when a child enrolls in elementary school 106 cases	106 cases	134 cases	137 cases
Babysitter expense subsidy (family fund)	Provides up to ¥100,000 per year for employees who must pay for a babysitter or daycare due to working hours.	25	33	13

#### List of Systems for Nursing Care Support

Work	Flex time System	Overtime exemption
	Late night working hours exemption	Shortened working hours
Time off	Long-term: Caregiving*	Short-term: Caring for a family member (accumulated vacation day use)
		Short-term: Nursing care for a family member (non-holiday)
Financial support	Care leave benefits	Care leave donations

\* Time off for caregiving

1. In principle, taken once for the reason of caregiving for the same family member. (Period: Last day of month one year after taking leave)
2. For caregiving requiring a total of 93 days or less, employees can repeatedly take multiple days off for the reason of caregiving for the same family member. (Period: Up to a total of 93 days)

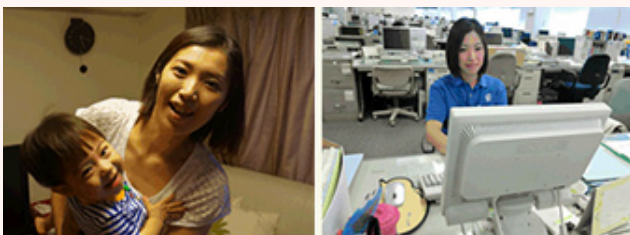
## Establishment of a Work and Family Life Support Site on the Company Intranet

To spread awareness of childrearing measures, 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. 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.

### Achieving a Work-Life Balance through Utilization of Shortened Working Hours

Aya Sato, NCM Project, Corporate R&D

As the daycare center closes at 18:30, I take advantage of shortened working hours. As I work in research, there were many times in the past that I worked overtime while waiting for the results of an experiment, but my supervisor understands the nature of this work and my workplace colleagues help out, enabling me to achieve a work-life balance. After my child is older, I hope to be able to return the favors I am receiving now.



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

In December 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.

[December 2012 Company Supporting Childcare \(Ministry of Health, Labour and Welfare\)](#)





In recognition of initiatives supporting work and childrearing, in January 2012, NGK was certified as a Company Promoting Women's Activities by the city of Nagoya.

[January 2012 Company Promoting Women's Activities \(City of Nagoya\)](#)



# Respect for People and Ensure Comfortable Workplace

## Human Resource Development

At NGK, people are our most precious management resource. With respect for employee motivation and ambition, we engage in the cultivation of human resources who will lead the next generation. In recent years, NGK has concentrated efforts on the enhancement of cross-cultural communication skills and language training in line with globalization of the business environment, as well as the education of talented employees for management positions.

**Promoting Human Resource Cultivation through the Establishment of Systems in Four Areas**



### Promoting Systematic Education through Nearly 120 Programs

NGK is engaged in systematic human resources training covering the four areas 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 position-based training, we conduct functional training, offering approximately 120 types of programs throughout the year. NGK conducts business skills training as a program aimed at enhancing the skills of all its employees. We also conduct management training, including management foundational training targeting newly appointed Group managers, which we are expanding to include younger key personnel.

Manufacturing training covers 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 training activities includes management training in three areas: English and Chinese communication skills, business skills, and international law and international human resources.

We are engaged in planning optimized training in consideration of not only company needs but also divisional and employee needs.

### Training Participant Summary (total participants)

### Average time spent in training annually per employee

	FY2013	FY2014
Men	28	22
Women	15	14
Key personnel	18	15
Non-key personnel	28	23

	FY2013	FY2014
Key personnel Men	927	960
Key personnel Women	37	30
Non-key personnel Men	2,779	2,752
Non-key personnel Women	308	302
Men (total)	3,706	3,712
Women (total)	345	332

#### Average annual cost of training per full-time employee( ¥10 thousand)

	FY2010	FY2011	FY2012	FY2013	FY2014
Average expenses	9	11	11	11	11

#### Establishment of Quality Improvement training for Skilled Positions

In fiscal 2014, we established and conducted quality improvement training for employees in skilled positions. In line with a younger workforce and an increase in mid-career hires coming from a variety of backgrounds, it is necessary to create training programs that cover a variety of needs. Given these conditions, we restructured the content of quality improvement training for employees in skilled positions conducted in the past into four classes based on the skills and experience of the participants. The training conducts tutorials and covers practical issues based on these four levels of understanding. Through this training, a total of 136 employees came up with initiatives based on issues faced in their divisions and engaged in quality improvements.

#### Measuring Human Resource Development Achievements Using Quantitative Indices

We introduced quantitative indices to objectively evaluate the results of human resource development. We aim to accelerate employee skills development by making use of these objective evaluations.

##### Quantitative Methodologies for Each Training

Language training: Level check employing TOEIC or native speaking instructor

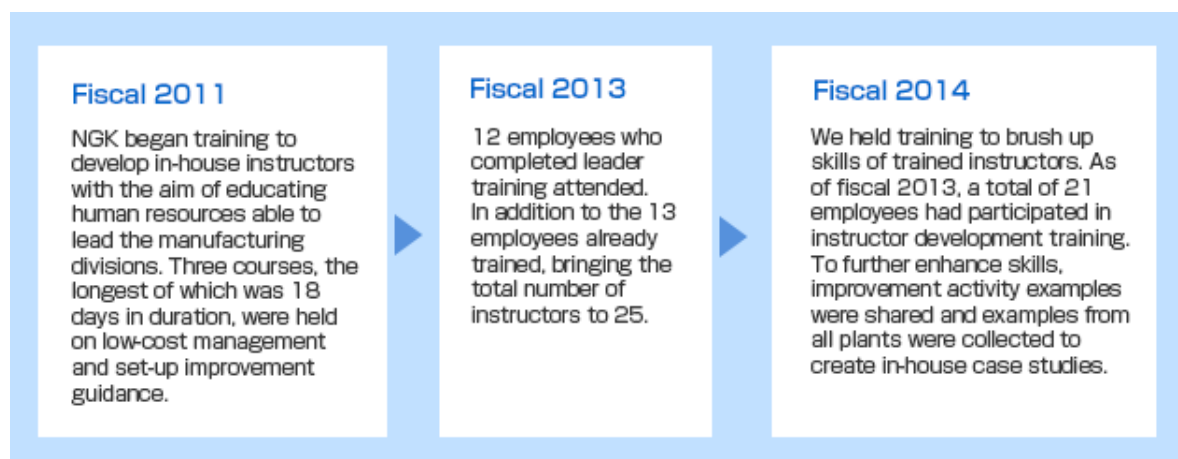
Manufacturing leader training: Learning is evaluated using improvement approach awareness exam. Evaluates one aspect of results of loss cost improvements.

Technical training: Practical application of themes are examined and evaluated using a point system.

#### Onsite Leader Human Resource Development

As veteran employees retire in large numbers the ratio of employees with limited experience are increasing at manufacturing sites. The NGK Group is systematically promoting training aimed at strengthening worksite capabilities.

## Progress of Training Aimed at Strengthening Worksite Capabilities



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 cultivate younger employees. In fiscal 2014, 23 newly appointed worksite leaders underwent training on labor management and recognition of the role of the worksite manager.

In training aimed at enhancing worksite capabilities, actual work improvement ability details were converted to a yen amount as one means of assessing the results of improvements.

### Training to Strengthen Worksite Capabilities

	FY2011	FY2012	FY2013	FY2014
In-house instructor development training(people)	13	-	12	-
Brush up training(people)	-	13	8	21
Worksite leader training(people)	124	25	25	23
Financial impact of improvement training results (Tens of thousands of yen per year)	-	-	-	4,120
Financial impact of individual improvement results (Tens of thousands of yen per year)	-	-	-	458

### English Instruction for New Employees

With the aim of rapidly cultivating global human resources, we began English language instruction in fiscal 2011 targeting all new hires in general positions. The training is level-based and conducted during the first year of employment, consisting of global mindset training, foundational development training led by Japanese instructors and training to develop practical business skills led by native speakers. Teams comprised of trainees of different levels of ability are formed in an attempt to enhance capabilities through friendly competition during the training.



Time spent learning English per general employment new hire (fiscal 2014 results) **136** hours per year

## Practical Overseas Training to Cultivate Global Human Resources

NGK conducts overseas practical training conducted over a period of six month at global Group companies with the aim of developing global human resources. The training focuses on developing practical business and communication skills in a cross-cultural environment targeting young employees who are future candidates for overseas postings.

In fiscal 2014, seven trainees were recommended by their divisions. After two months of language training, they each spent 2–4 months in practical training at Group companies in Poland, Belgium and the United States. As of fiscal 2014, 46 employees had participated in this training, of which 29 have been posted overseas on permanent assignments.

▶ [Promotion of intellectual property education](#)

# Respect for People and Ensure Comfortable Workplace

## Dialogue with Employees

### CSR Talk Live (Dialogue with Employees Aimed at CSR Practices)

To deepen each and every employee's understanding of CSR initiatives, NGK conducts "CSR Talk Live," a talk event facilitating direct discussion between senior management and employees held at all domestic sites since fiscal 2009. Going forward, we will attempt to further inculcate CSR through additional direct dialogues.

An overview of fiscal 2014 CSR Talk Live is presented in the digest.

▶ [CSR Talk Live](#)

### Distributing the Latest Information on CSR Activities on the CSR-Web

The CSR-Web was established on our intranet to introduce Group CSR initiatives with the intent of inculcating an awareness of CSR among all NGK domestic Group employees. In addition to sharing CSR topics with all employees and presenting objectives for each area, information on the site is regularly updated to include CSR Committee meeting discussions and Q&A between senior management employees and general employees who attended the CSR Talk Live event in an attempt to provide a wealth of content only available on this website.



### Communication Between Labor and Management

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.

NGK and the NGK Worker's Union attempt to share business conditions and performance at Labor-Management Advisory Board meetings, as well as issues pertaining to manufacturing, work systems and workplace environments from each worksite at Office Advisory Board meetings.

Labor and management also proactively exchange opinions at Regular Labor-Management Council meetings

At Regular Labor-Management Council and Labor-Management Study Meetings held in fiscal 2014, two topics based on the theme of "improving safe, worthwhile and meaningful work" were discussed.



#### Topic 1

Revise systems for promoting reviews of working arrangements with the aim of realizing a work-life balance

Result: Expand half-day paid leave (from 14 to 20 times), establish hourly increment paid holiday system for employees working shortened working hours (equivalent to one day per year)

## Topic 2

About revision to system related to residential measures linked to worker peace of mind

Result: Revised overall allowances. Residence allowance, family allowance, Section Chief allowance, commutation allowance, working in Tokyo area allowance, job transfer allowance, solo assignment allowance and business trip accommodation expenditures.

### Internal Newsletter Receives Award in China (NGK Insulators Tangshan)

To enliven internal communication throughout the NGK Group, many Group companies issue internal newsletters employing creative tactics to promote understanding of company issues amongst all employees. NGK Insulators Tangshan (China) received a second place award recognizing the outstanding content of its internal newsletter at a ceremony held in China in February 2014. This was the only award won by a foreign multinational company.



NGK Insulators Tangshan internal newsletter



## Respect for People and Ensure Comfortable Workplace

### CSR Talk Live (Dialogue with Employees on CSR Practices)

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

In fiscal 2014, this event was held nine times at seven venues, including NGK Ceramic Devices Komaki Site, NGK Adrec and Akechi Insulators. A total of 400 employees participated.

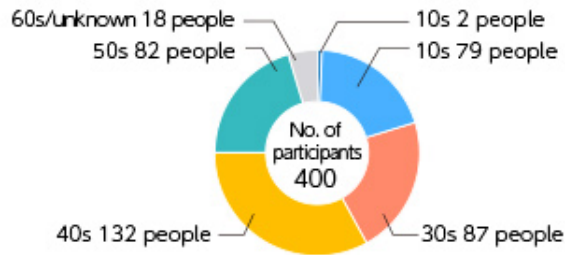
At each venue, senior management emphasized the importance of NGK Group CSR initiatives to those in attendance, while the Environmental Management Department and CSR Promotion Office used specific examples to explain CSR Report details. Afterward, a Q&A session with employees was conducted on topics including environmental conservation, workplace safety and compliance.

Comments provided on a post-event survey included “This event enabled me to reflect on how low my awareness had been up to now,” and “I talked with my children at home about the importance of environmental conservation.” These comments enabled us to ascertain the depth of employee understanding as it pertains to CSR activities. We will continue these activities in an attempt to further inculcate CSR.

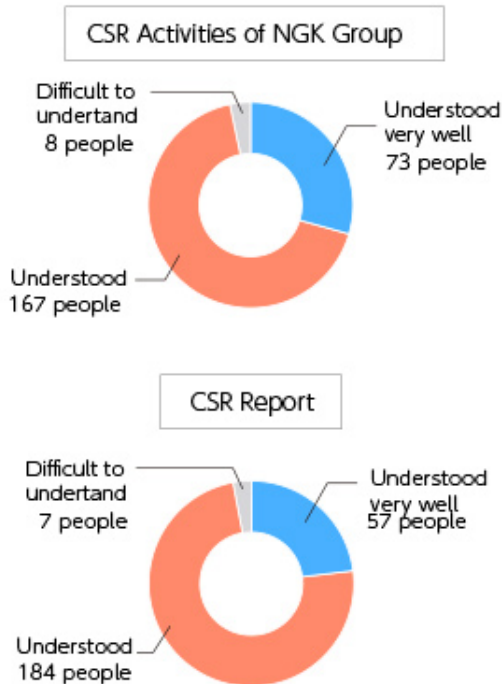
#### CSR Talk Live Event Schedule and Number of Participants

Place	Date	Number of Participants
Nagoya Site, Aichi Prefecture	September 30	50
	October 1	55
	October 2	52
Chita Site, Aichi Prefecture	October 15	56
Komaki Site, Aichi Prefecture	October 22	49
NGK CERAMIC DEVICE Yamanashi Plant, Yamanashi Prefecture	October 28	50
NGK Adrec Co., Ltd., Gifu Prefecture	September 16	30
Akechi Insulators Co., Ltd, Gifu Prefecture	September 25	30
Tokyo Main Office, Tokyo	November 4	28

● Participation by Age Group



● Evaluation on Presentation



Nobumitsu Saji, Director and Senior Vice President, CSR Committee Chair

**CSR Talk Live Participant Questions and Company Answers (Excerpt)**

**Environment: Environmental Conservation Activities at Overseas Plants**

**Q.** How are CSR and environmental activities developed at overseas plants?

**A.** Once every two years, we want to visit overseas plants to meet with the heads of each division and develop environmental activities. We want to conduct an event similar to CSR Talk Live while considering methods appropriate for approaches conducted in countries overseas including, but not limited to, the environment.

**Q.** What kinds of environmental awareness activities are conducted at overseas Group companies?

**A.** In terms of senior management, we understand that they possess a solid environmental awareness. However, we have yet to ascertain the level of awareness among individual employees. We want to inculcate a deep understanding through a common global language using keywords such as safety and environment.

**Environment: CO2 Reduction Activities**

**Q.** How is the reduction of CO2 promoted?

**A.** The reduction of CO<sub>2</sub> is promoted through the introduction of new manufacturing technologies that arise from new manufacturing structural innovations. Furthermore, steady on-site efforts have a substantial effect on improved productivity.

**Q.** **To reduce CO<sub>2</sub> emissions, we utilize LGP and regenerative burners, but recently it feels like we are running out of ideas. Based on what we have done up to now, what are the most effective ways to reduce CO<sub>2</sub>?**

**A.** The firing of HONEYCERAM® and insulators emit the largest volumes of CO<sub>2</sub>, thus it is important to reduce the emissions per unit by shortening the firing schedule and increasing batch numbers. Let's try to reduce the amount of steps in each process and increase productivity. Even the Environmental Management departments will support the elimination of utility-related waste. (NGK)  
Let's go back to the beginnings of manufacturing and rethink the firing process. Please refer to the case study compilation created by NGK. (NGK Adrec)

#### **CSR: Expenses**

**Q.** **How are decisions made regarding expenses incurred by social contribution and environmental burden reduction activities?**

**A.** Decisions are made by the CSR Committee, which meets three times each year. In terms of eliminating environmental burdens, we not only invest to reduce CO<sub>2</sub> emissions, we also invest in productivity improvements that lead to CO<sub>2</sub> reductions.

#### **CSR: CSR Procurement**

**Q.** **I was in charge of CSR procurement, and I struggled with the setting of goals. What does CSR procurement look like going forward?**

**A.** The societal demand for CSR procurement continues to increase, which makes it harder to set goals. Goals must be achieved 100%, so let's do everything we can to achieve goals.

#### **CSR: NGK Eco Point System**

**Q.** **Within the Eco Point system, how are points earned for activities conducted at home?**

**A.** In principle, points are added up by checking off self-declared environmental activities on the Eco Card, such as regional cleanup and greening efforts. Points can also be earned for household environmental accounting ledgers, Eco Driving, sitting for the Eco Test and Eco proposals.

#### **Compliance: Competition Laws**

**Q.** **With regard to competition laws, when I meet people from another company, I tend to become tight-lipped. Please explain the do's and don'ts regarding competition laws.**

**A.** At present, we are revising the Competition Law Compliance Handbook to make it easier to understand. It is perfectly fine to maintain an awareness of competition laws related to your work. If there is something specific you are concerned about, please make sure you document it.

#### **Compliance: Helpline**

**Q.** **When power or sexual harassment is reported to the helpline, what kind of response can we expect?**

**A.** The criteria for power harassment are fuzzy, so we make an effort to speak with both parties. When it is difficult to speak directly with those involved, we listen to what people around them say. When an incident is reported to the helpline, we never reveal any details so employees can use it with peace of mind.

# Supply Chain

## Basic Approach

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The NGK Group established the Basic Purchasing Policy in an attempt to conduct fair and honest business transactions and to prosper together with all our procurement partners.

### Basic Purchasing Policy

#### **Open and Fair**

- Open, fair, and equitable procurement
- Pursuit of the principles of competition and economic potential

#### **Partnership**

- Mutual prosperity based on mutual trust with suppliers

#### **Relationship with Society**

- Obeying the law
- Protecting the environment

# Supply Chain

## Promotion of CSR Procurement

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The entire NGK Group 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 CSR activities as overall supply chain activities. In fiscal 2013, the CSR Procurement Guidelines were revised.

### New CSR Procurement Guidelines

In fiscal 2013, the NGK Group revised the CSR Procurement Guidelines. This involved organizing previously established guidelines in accordance with Basic Purchasing Policy and adding sections on disputed minerals, corruption and principles regarding human rights and labor. Having partially revised existing Green Procurement Guidelines, we newly incorporated them as “Green Procurement Standards” into the CSR Procurement Guidelines as a supplemental material. While these guidelines apply to all NGK Group suppliers, we also ask that they are understood and followed by the suppliers who supply our suppliers. We constantly attempt to expand and practice these initiatives by disclosing these guidelines to all NGK and global Group company suppliers. The CSR Procurement Guidelines are published in Japanese, English and Chinese languages, available below.

### Procuring Resources and Raw Materials Responsibly

The NGK Group conducts procurement activities that consider impacts on regional communities stemming from the use of raw materials (e.g. “conflict minerals” including tin, tantalum, tungsten and gold from the Democratic Republic of the Congo and neighboring countries, as well as minerals that are the source of funds for armed insurgencies in that region) with the potential to cause social issues such as human rights violations and poverty, and takes steps to avoid using such materials when there is risk of adverse impact.

### CSR Procurement Guidelines Supplemental Materials

Japanese language

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

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

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

English language

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

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

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

Chinese language

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

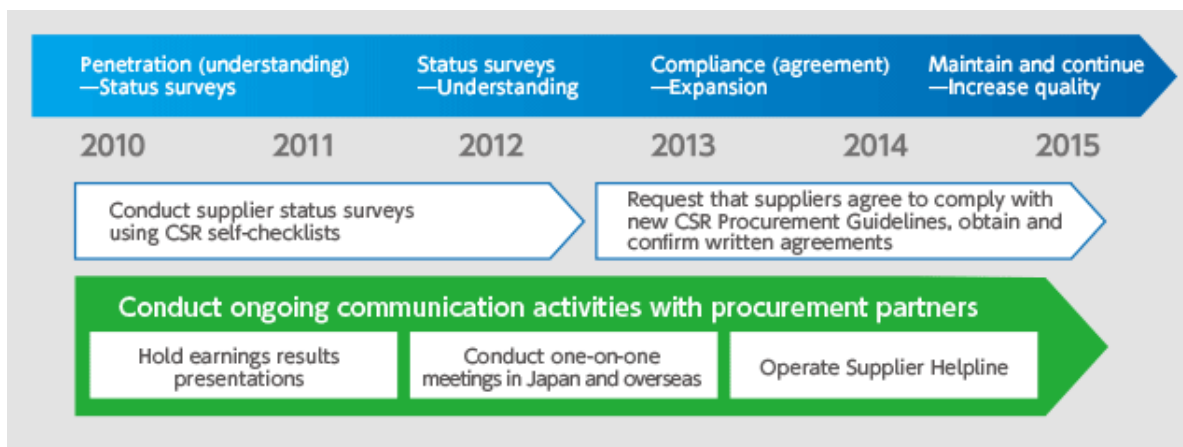
[NGK Group's Green Procurement Standard \(Chinese\)\(PDF:246KB\)](#)

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

### Developing CSR Procurement in Conjunction with Societal Trends

The NGK Group has engaged in the expansion of CSR Procurement by inculcating an understanding of CSR Procurement among its suppliers, conducting status surveys and taking proactive steps to further advance guideline compliance while expanding CSR Procurement activities to new suppliers. Going forward, we will consider societal trends while aiming for greater quality through the maintenance and continuation of CSR Procurement activities with suppliers. We will also promote activities in each country and region where we operate overseas Group companies.

■Ongoing Promotion of CSR Procurement



# Supply Chain

## Fair and Honest Procurement Partner Evaluations and Extensive Resource Diversification

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In accordance with the Basic Purchasing Policy, the NGK Group selects procurement partners based on fair and honest evaluations. We also attempt to ensure procurement when disasters occur through the extensive diversification of procurement resources.

### Selection of Suppliers Based on Fair and Honest Evaluations

NGK 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 as well as quality, cost and delivery (QCD).

In addition to the procurement department being involved in the selection of suppliers, multiple departments are also involved in this process, which requires multi-stage approval before selection occurs in an effort to ensure fair and honest evaluation and decision-making.

### Promoting Business Continuity Planning (BCP) through the Diversification of Procurement Resources

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 ensuring sufficient inventory and that the storage facilities for these items are located in a safe place that cannot be damaged by tsunamis. In addition, when selecting a new procurement partner, we take into consideration the existence or absence of multiple locations and efforts to ensure inventory.



## Supply Chain

### Communication Activities with Procurement Partners

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#### Earnings Presentations for Suppliers

NGK held an earnings presentation for major suppliers in June 2014 attended by 230 people from 130 companies.

The earnings presentation introduced NGK procurement initiatives aimed at reducing the cost of procurement including logistics, business continuity planning (BCP) and stabilizing procurement in response to fluctuating demand. We also asked suppliers for their cooperation regarding the secure management of information. After the presentation, a social gathering was held where suppliers were able to exchange ideas with NGK directors and division heads.



Suppliers invited to the earnings presentation.

#### Ongoing Operation of the Supplier Helpline

In 2008, NGK established the supplier helpline system. Receiving consultation via email, fax and telephone, we make an effort to respond with solutions quickly. In fiscal 2015, we continue to build and maintain fair supplier relationships through the ongoing operation of the supplier helpline.

#### Individual Visits to Suppliers in Japan and Overseas

To procure from the most suitable suppliers, NGK visits suppliers around the world to conduct a fair and honest evaluation in terms of quality, cost and delivery (QCD). In fiscal 2014, we visited nine new suppliers and 103 existing suppliers, a total of 112 companies.

In fiscal 2014, we visited 74 existing suppliers to monitor QCD and confirmed improvements were being conducted at 29 of these companies. After explaining monitoring results, we asked suppliers to make improvements in areas receiving a low evaluation.

In fiscal 2015, we will continue visiting new and major suppliers to conduct evaluations.

# Preservation of Global Environment

The NGK Group is engaged in ongoing environmental conservation efforts by improving manufacturing processes through the development and introduction of innovative manufacturing technologies and the development of products and services that contribute to reducing environmental impacts.

## NGK's Core Policy on the Environment

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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 based on Environmental Philosophy and Environmental Action Guidelines in order to bring its corporate activities into harmony with the environment. On the basis of this policy, the NGK Group works to reduce the environmental impact of business activities, and actively strive to help protect the environment by developing products and technologies to that end.

### NGK's Core Policy on the Environment

#### Environmental Philosophy

Given its corporate philosophy—"NGK products and technologies must create new value and contribute to the quality of life"—NGK will contribute to tackling environmental issues through its "Triple-E" business segments of ecology, electronics, and energy to create a comfortable environment for future generations.

#### Guidelines for Environmental Action

1. Strive to develop, design, and manufacture products that contribute to the environment and products with low environmental impact.
2. Work to reduce the environmental impact arising from business activities.  
Conduct design reviews to scientifically study and evaluate the environmental impact of business activities.
  - Promote energy conservation measures for all processes and facilities, and make efforts to control CO<sub>2</sub> emissions.
  - Promote resource saving and recycling, and make efforts to control the generation of by-products.
  - Through the appropriate use and control of chemical agents, work to reduce the risks inherent in toxic substances.
  - Give precedence to environmentally friendly materials, parts, products, and facilities in procurement and purchasing, strengthening cooperative alliances with our business partners.
3. Enhance environmental management systems from a global perspective while continuously reducing our environmental impact.
4. Not only abide by environmental laws, regulations, and other requirements, but also institute voluntary standards and work to improve our own environmental conservation.
5. Provide environmental information to the public at the appropriate time and pursue dialogue with all stakeholders. Proactively develop social action programs. Also, engage in education and publicity in order to improve employees' environmental consciousness.

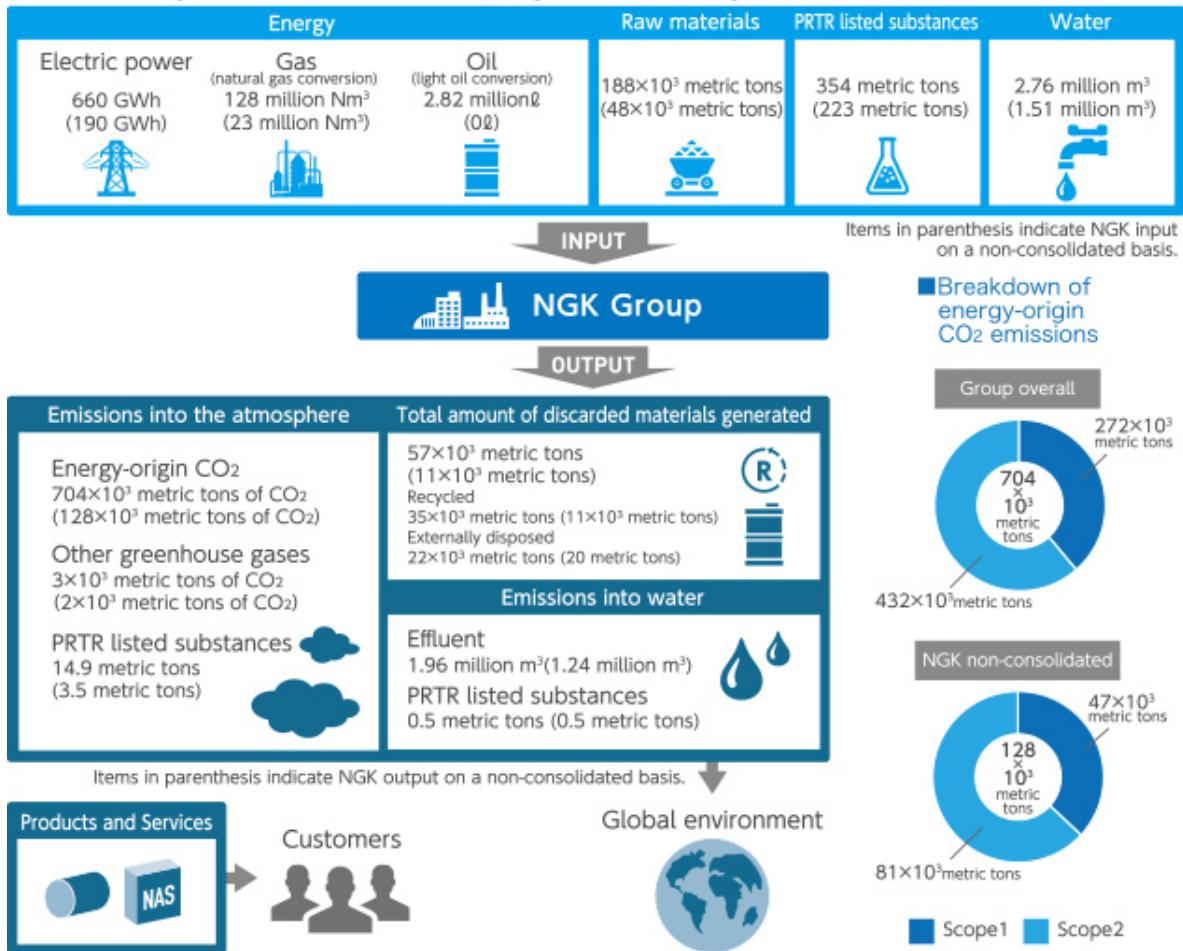
# Preservation of Global Environment

## 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 expanded production activities, the NGK Group output of substances impacting the environment (CO<sub>2</sub> and other discarded materials, etc.) is on the rise. However, efforts to introduce the latest manufacturing processes and improve the management of facilities have resulted in the rate of increase for emissions that impact the environment being lower than the rate of increase for products and services (net sales) provided to customers.

### NGK Group Material Balance (Input and Output)



Notes: 1. Environmental performance values in this report have been rounded up for convenience; therefore they may not match totals when added together.

2. "Discarded materials" indicates total amount of industrial waste and valuables. (R) indicates outside recycling.

### 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 Group companies: 12 manufacturing-related consolidated subsidiaries

Overseas Group companies: 16 manufacturing-related consolidated subsidiaries

# Preservation of Global Environment

## Five-Year Environmental Action Plan

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### Fiscal 2014 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 CO<sub>2</sub> emissions and discarded materials overseas.

Fiscal 2014 targets and results, as well as Five-Year Plan targets, are stated below.

Categories	Items	Management items	FY2014 environmental performance			Five-Year Plan Objectives (Fiscal 2015)
			Targets	Achievements	Self-evaluation*1	
 Global warming prevention	Reduction of CO2 from production activities	Domestic CO2 emissions *2	183x10 <sup>3</sup> metric tons or less	185x10 <sup>3</sup> metric tons	△	10% reduction from fiscal 1990 (190x10 <sup>3</sup> metric tons or less)
		Domestic basic unit per net sales	Reduce 13% compared to previous fiscal year	Reduced 13% compared to previous fiscal year (23% reduction from fiscal 2010)	○	20% reduction from fiscal 2010
		Overseas basic unit per net sales	Reduced 4% compared to previous fiscal year	Reduced 18% compared to previous fiscal year (31% reduction from fiscal 2010)	○	5% reduction from fiscal 2010
	Reduction of CO2 from logistics	NGK basic unit per transport volume *3	Reduce 1% compared to previous fiscal year	Increased 5% compared to previous fiscal year	×	1% reduction each year
 Effective use of resources	Reduction of discarded materials	Domestic basic unit per net sales	Reduce 23% compared to previous fiscal year	Reduced 15% compared to previous fiscal year (21% reduction from fiscal 2010)	×	10% reduction from fiscal 2010
		Overseas basic unit per net sales	Reduce 9% compared to previous fiscal year	Reduced 19% compared to previous fiscal year (34% reduction from fiscal 2010)	○	5% reduction from fiscal 2010
	Promotion of resource recycling	Domestic recycling rate	Improve domestic Group company recycling rate	Domestic Group company recycling rate was 99.2%	○	99% or higher
		Overseas recycling rate	Ascertain appropriate recycling rate for each location	Established scope of appropriate recycling rate in each location	○	Set and manage recycling rates established with consideration for the conditions in each country
Effective use of water resources	Plan progress rate	Assess water risks at all locations	Confirmed no water risk situations are serious at all locations	○	Create standards for efficient usage based on water resource usage status survey	
 Ensuring chemical substances management	Improvement in level of chemical substances management	Plan progress rate	Establish appropriate management of upgraded management systems	Established appropriate operations by regularly conducting voluntary confirmation	○	Upgrade chemical substance management systems
 Provision of eco products	Promotion of environmental contribution through products	Plan progress rate	Create collective evaluation method for our eco products	Reviewed collective evaluation method	○	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	Robust environmental contribution activities	Plan progress rate	Promote activities in conjunction with regional communities	Promoted activities in conjunction with regional communities	○	Continue and expand activities related to regional communities

environmental communication		Promote Environmental Partnership Organizing Club (EPOC) event	Conducted corporate seminars and next-generation environmental education		
	Improvement in environmental awareness	Conduct employee environmental education  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. CO<sub>2</sub> conversion factors (kg-CO<sub>2</sub>/unit) used in calculating CO<sub>2</sub> emissions are as follows: Units are indicated in parentheses. Purchased electric power (kWh): 0.42, Fuel oil (L): 2.677, Diesel fuel (L): 2.64, Kerosene (L): 2.49, City gas (Nm<sup>3</sup>): 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 2014 energy-origin CO<sub>2</sub> emission volume for NGK on a non-consolidated basis is 147x10<sup>3</sup> metric tons when using the CO<sub>2</sub> conversion factor provided by the Cabinet Orders of the Law Concerning the Promotion of Measures to Cope with Global Warming (revised in March 2015).

\*3 NGK basic unit per transport volume expresses in metric ton-kilometers the amount of crude oil equivalent fuel used.

### 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 Group companies: 12 manufacturing-related consolidated subsidiaries

Overseas Group companies: 16 manufacturing-related consolidated subsidiaries

# Preservation of Global Environment

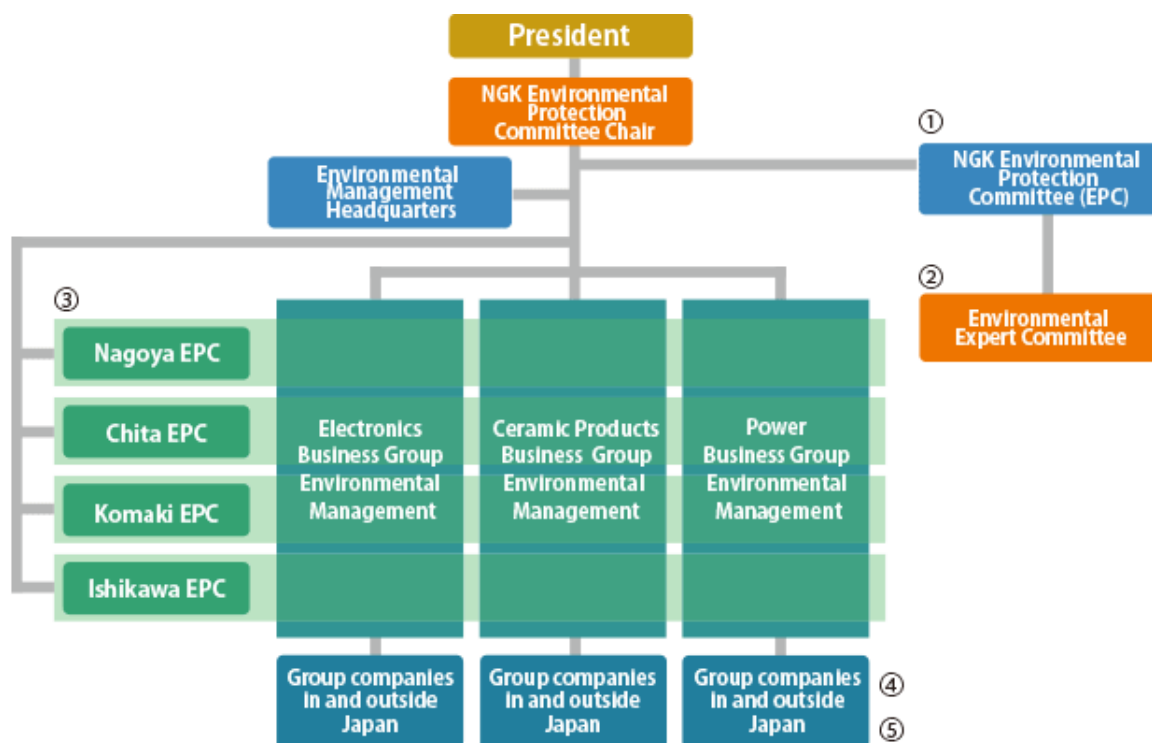
## Environmental Management Frameworks and Environmental Management System

The NGK Group promotes environmental conservation activities in accordance with our Core Policy on the Environment through initiatives pertaining to environmental management frameworks and the Environmental Management System (EMS) implemented by global Group companies working in conjunction with one another.

### Consolidated Environmental Management Promotion System

In addition to environmental management systems at the Nagoya, Chita, and Komaki sites and Ishikawa plant, we promote consolidated environmental management through a consolidated management system that includes domestic and overseas Group company business groups as activity leaders.

One feature of this business group-based environmental management system is that it enables Group promotion of environmental management initiatives regarding issues such as reducing CO2 controlling discarded materials emissions and strengthening chemical substance management. In an attempt to unify Group company environmental management, in addition to annual domestic Group company liaison committee meetings, since fiscal 2013, we have also held liaison committee meetings at Group companies outside Japan and exchange information from both committees to respond to matters of concern. Furthermore, Headquarters staff visits Group companies to provide support for energy conservation diagnostics and countermeasure reviews.



#### ① NGK Environmental Protection Committee

In principle, meets twice each year. Other meetings are held at the discretion of the chairman.

◆Governing Structure

Chairman	President makes decision in light of Executive Committee deliberations (As of June 2015, Director and Vice President)
Vice Chairman	Appointed by NGK Environmental Protection Committee Chairman (As of June 2015, General Manager of Environmental Management Dept.)
Committee Members	Executive Vice President, Vice Presidents responsible for Head Office Departments, Group Executives, General Managers, General Manager of Pollution Control at each site, General Manager of Environmental Management Dept., General Manager of Corporate Strategy Office, General Manager of Human Resource Department, General Manager of CSR Office, General Manager of Finance & Accounting Dept., General Manager of Legal Dept., General Manager of General Affairs Dept., General Manager of Purchasing Dept., General Manager of Construction & Maintenance Dept., others designated by the Committee Chairman

## ② Environmental Expert Committee

In principle, meets twice each year. Meets before the NGK Environmental Protection Committee to review and discuss items to be reported to the committee.

### ◆ Governing Structure

Expert Committee Chair	General Manager of Environmental Management Dept.
Vice Chairman	General Manager of Construction & Maintenance Dept.
Members	Persons in charge of environmental management in each division, persons in charge of main product Manufacturing divisions, persons in charge of Engineering Department

## ③ Environmental committees in each area (Nagoya site, Chita site, Komaki site, Ishikawa plant)

In principle, meets twice each year in each area. Thoroughly conveys matters determined by the NGK Environmental Protection Committee, communicates and discusses issues and topics in each area (all four areas meet twice each year for a total of eight meetings)

## ④ Domestic Group company liaison meetings

Meets once each year. Conveys the Group-wide policy on environmental initiatives to manufacturing Group companies and attempts to share each company's environmental management status and information on effective initiatives to promote the unification of domestic Group company environmental conservation activities.

## ⑤ Sharing information with overseas Group Companies

The Environmental Performance questionnaire is used to conduct an annual survey into the status of compliance with environmental laws at each company. Main Group companies are visited every 2-3 years to ascertain management conditions through hearings.

## History of NGK's Environmental Activities



April	1972	Environmental Protection Committee and Environmental Preservation Office (currently, Environmental Management Dep.) 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 <sub>2</sub> 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 audits 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" and "wastes" renamed "by-products."
March	2004	Three-year and long-term plans for reduction of CO <sub>2</sub> 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	Initiated environmental surveys of overseas Group companies
May	2007	Introduction of a consolidated goal for CO <sub>2</sub> and by-products for domestic Group companies
April	2008	Establishment of the Environmental Management Department
January	2009	Introduction of goals to reduce CO <sub>2</sub> by-products, and chemical substances for overseas Group companies
January	2010	Expanded scope of goals to reduce CO <sub>2</sub> by-products, and chemical substances for overseas Group companies
April	2011	Formulated the third Five-Year Environmental Action Plan, "by-products" renamed "discarded materials."
March	2012	Three NGK sites (Nagoya, Chita and Komaki) received integrated ISO 14001 certification
March	2013	The Ishikawa plant 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 <sub>2</sub> discarded materials and other important environmental management items (created through the combination of the former CO <sub>2</sub> Countermeasures and Recycling Promotion Commission)
August	2013	Conducted environmental liaison meeting at overseas Group companies as part of attempts to strengthen global environmental management
February	2015	NAS Battery wins the Gold Prize at the 2015 Aichi Environmental Awards

## Environmental Management System (ISO14001, etc.) Initiatives

The NGK Group promotes the acquisition of ISO14001 or third-party certifications meeting this standard to systematically and continuously develop environmental conservation activities in line with the Core Policy on the Environment. Three NGK sites, the Ishikawa plant, all 12 domestic Group companies and all 16 overseas Group companies have completed certification.

We will make effective use of these environmental management systems going forward with the intent of reinforcing environmental management.

### Certification of Environmental Management System

Categories		No. of manufacturing bases	No. of bases certified
NGK		4	4
Domestic Group	Power Business	3	3
	Ceramic Products Business	6	6
	Electronics Business	10	10
Overseas Group	Power Business	4	4
	Ceramic Products Business	9	9
	Electronics Business	4	4

The counting method of manufacturing bases was changed in fiscal 2014.

## Environmental Audits

NGK conducts internal environmental management system audits and is inspected by third parties at the Nagoya, Chita, and Komaki sites, as well as the Ishikawa plant. Group companies also conduct these same internal audits and external reviews of the environmental management systems are conducted by external auditors at all Group companies.

In fiscal 2014, no significant findings were made. In the event of a significant finding, the relevant division and Environmental Management Department work together to review and implement countermeasures as well as inform environmental committees in each area in an attempt to horizontally deploy these measures.

## Environmental Risk Management

In addition to working to prevent environmental pollution, including atmosphere and water pollution, NGK periodically revises its environmental management framework 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 addition to observing relevant regulations and agreements with control authorities, NGK has concluded environmental preservation-related and other 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 2014.

## Environmental Patrols and Emergency Response Drills

NGK implements environmental patrols in line with annual plans to prevent environmental pollution and conducts response drills based on emergency scenarios to minimize damage. In fiscal 2014, environmental patrols were conducted at the Nagoya, Chita and Komaki sites and the Ishikawa plant to prevent atmosphere and water pollution, ensure the appropriate management of chemical substances and suppress noise and vibrations. Response drills based on emergency scenarios were also conducted at these four areas. Going forward, NGK will continue to proactively engage in patrols and drills in an attempt to improve operational methods and mitigate environmental risks.

		Atmosphere	Water	Noise and vibrations	Chemical substances
Nagoya	Environmental patrols	2	1	2	1
	Emergency response drills	3	1	-*	2
Chita	Environmental patrols	1	2	1	1
	Emergency response drills	3	5	-	-
Komaki	Environmental patrols	1	2	1	2
	Emergency response drills	8	8	-	-
Ishikawa	Environmental patrols	2	2	2	1
	Emergency response drills	2	2	-	-

\* - Indicate emergency response drills were considered of low importance and not conducted

# Preservation of Global Environment

## Environmental Impact Reduction Initiatives

The NGK Group engages in the reduction of impacts on the environment by reducing CO<sub>2</sub> emissions and promoting resources recycling through production activities.

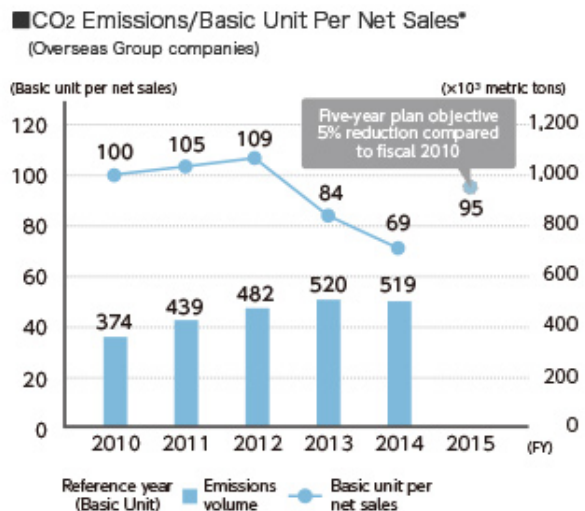
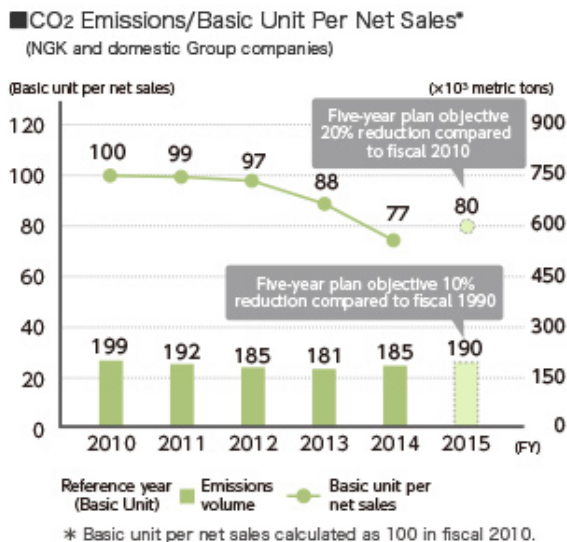
### Prevention of Global Warming

We have established reduction targets for CO<sub>2</sub> emissions, one cause of global warming, in overseas manufacturing activities. The NGK Group promotes initiatives globally to control and reduces CO<sub>2</sub> emissions.

#### Domestic and Overseas CO<sub>2</sub> Reduction Plans Progressing on Track

The NGK Group is engaged in curbing global CO<sub>2</sub> emissions mainly through manufacturing process improvements. Although the reduction of CO<sub>2</sub> emissions\* resulting from domestic production activities in fiscal 2014 exceeded reductions planned at the beginning of the year, due to production increased in response to vigorous demand and the production of more sample prototypes than initially projected, we fell slightly short of the fiscal 2014 target (emissions of 183,000 metric tons or less), emitting 185,000 metric tons (down 12% compared to 1990). Furthermore, in terms of domestic basic unit per net sales CO<sub>2</sub> emissions, we achieved our initial target of a 13% reduction compared to the previous fiscal year. Realizing a 23% reduction in emissions compared to fiscal 2010 enabled us to achieve our Five-Year Plan objective (a 20% reduction compared to fiscal 2010) earlier than projected.

At the same time, with respect to basic unit per net sales CO<sub>2</sub> emissions overseas, taking into account factors including startup loss from a newly constructed production line, although we established a target of no more than 4% increase in emissions compared to the previous fiscal year, we were able to start up smoothly and quickly begin mass production, enabling us to achieve an 18% reduction compared to the previous fiscal year and significantly exceed targets. We were also able to realize a 31% reduction compared to fiscal 2010, enabling us two years in a row to achieve reductions that substantially exceeded Five-Year Plan objectives (a 5% reduction compared to fiscal 2010).



### Introduction of Green Power

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 metric tons of CO<sub>2</sub> emissions per year and the annual amount of



Categories	Measures	Effects
Highly efficient manufacturing processes	<ul style="list-style-type: none"> <li>Main production efficiency initiatives at overseas locations</li> <li>·Introduction of innovative production processes</li> <li>·Equipment improvements</li> <li>·Management improvements</li> </ul>	<ul style="list-style-type: none"> <li>CO2 reduction effect</li> <li>Domestic: 4,500 metric tons</li> <li>Overseas: 25,900 metric tons</li> </ul>
Group company energy-saving diagnostics	<ul style="list-style-type: none"> <li>Energy-saving diagnostic initiatives</li> <li>·Used proprietary energy-saving guidelines formulated up until last fiscal year</li> <li>·Targeted general-purpose equipment and manufacturing processes at Group companies in Japan and overseas</li> <li>·Conducted in conjunction with local employees</li> <li>·Identified areas for improvement and formulated improvement plans</li> </ul>	<ul style="list-style-type: none"> <li>Of which</li> <li>·Production process improvements</li> <li>Domestic: 3,100 metric tons</li> <li>Overseas: 23,100 metric tons</li> <li>·General purpose equipment energy savings</li> <li>Domestic: 1,400 metric tons</li> <li>Overseas: 2,800 metric tons</li> </ul>
General-purpose equipment energy-saving activities	<ul style="list-style-type: none"> <li>Horizontally deployed main improvements</li> <li>·Eradicated air and steam leaks from plumbing</li> <li>·LED lighting</li> <li>·Eliminated wasteful air conditioning</li> </ul>	
Reducing CO2 in logistics	<ul style="list-style-type: none"> <li>Main initiatives in logistics</li> <li>·Promoted modal shift mainly on large projects</li> <li>·Expanded adoption of returnable packaging</li> </ul>	<ul style="list-style-type: none"> <li>CO2 reduction effects</li> <li>Emissions: 3,400 metric tons,</li> <li>11% reduction year-on-year</li> <li>Basic unit: 0.0414 KL/ thousand metric ton- kilometers,</li> <li>5% increase year-on-year</li> </ul>

## Promotion of Resource Recycling

To boost yield from manufacturing process improvements, NGK Group reuses in-process materials in an effort to curb discarded materials while also focusing efforts on recycling to reduce final disposal volumes to promote resource recycling.

### Discarded Material Reduction Plans are Proceeding on Track in Japan and Overseas

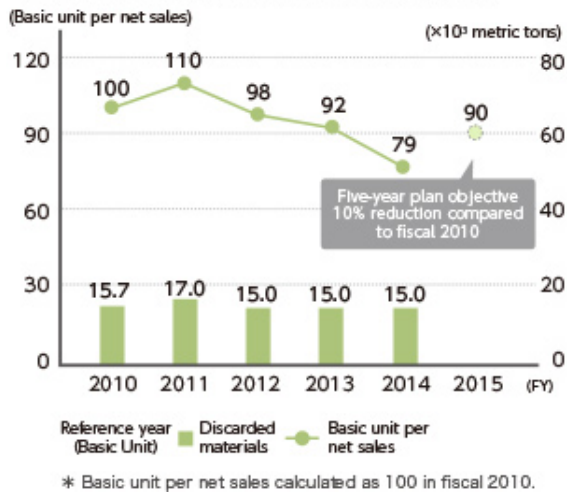
In fiscal 2014, discarded materials in Japan decreased 15% on a basic unit per net sales basis compared to the previous fiscal year, a significant improvement. However, the launch of new products not planned at the beginning of the fiscal year and the impact of increased sample production that did not contribute to sales prevented us from reaching the initial target (a 23% reduction compared to the previous fiscal year). Nevertheless, we did achieve a 21% reduction compared to fiscal 2010, clearing the Five-Year Plan objective (10% reduction compared to fiscal 2010) ahead of schedule.

In terms of discarded materials overseas, we substantially exceeded the initial target (a 9% reduction compared to the previous fiscal year) with a 19% reduction in basic unit per net sales. We also achieved a 34% reduction compared to fiscal 2010, clearing the Five-Year Plan objective (5% reduction compared to fiscal 2010) ahead of schedule for the second year in a row.

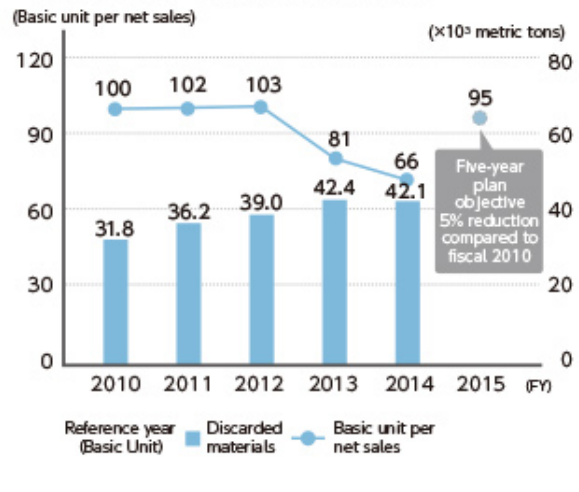
Going forward, we will further promote manufacturing process improvements, higher yield rates through more efficient use of resources and the reuse of raw materials within processes in an effort to reduce the amount of discarded materials generated.



■ Amount of Discarded Materials Generated/Basic Unit Per Net Sales\* (NGK and domestic Group companies)



■ Amount of Discarded Materials Generated/Basic Unit Per Net Sales\* (Overseas Group companies)



### 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. Discarded materials derived from ceramics raw materials are used in cement and as roadbed materials, while waste plastic is recycled as raw material for plastic and solid fuel. Consequently, the fiscal 2014 recycling rate was nearly the same as in fiscal 2013, as we maintained a high recycling rate of 99.8%\*.

In fiscal 2014, we continued improvements at domestic Group companies and were able to increase the recycling rate from 97.3% in the previous fiscal year to 97.6%.

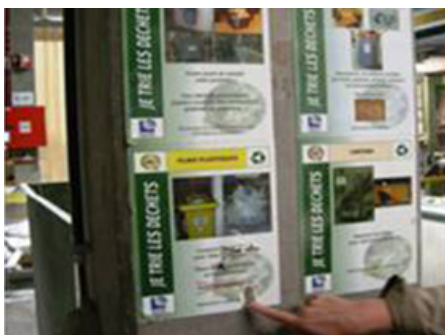
Already in fiscal 2013, NGK and its domestic Group companies achieved a combined recycling rate of 99.2%, clearing 99% of Five-Year Plan targets.

Regarding overseas Group companies, where situations differ by country and region, we conduct activities in an aim to establish recycling rate targets and institute management under the Five-Year Plan that considers the conditions in each country. In fiscal 2014, we promoted strict waste separation management and disposal company searches, and in consideration of special circumstances, ascertained recycling rates with a scope appropriate for conditions at each location. NGK Group will continue to promote initiatives aimed at recycling domestic and overseas while attempting ongoing improvements and the establishment of management.

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

### Overseas Group Company Implementation Examples

At overseas Group companies, waste material separation management is strictly enforced. Waste separation rules are posted where waste materials are stocked and color-coordinated containers are provided for each category of waste to avoid confusion.



NGK Ceramics Europe



NGK Ceramics USA

## NGK Group Water Resource Initiatives

### Water Risk Evaluation



Regarding water risks at manufacturing bases, including Group companies in Japan and overseas, we make efforts to ascertain the status of responses to water risks at each location through regular inspection of regulatory trends in regions where we do business, initiatives aimed at water usage conditions (overall amount and per basic unit) and the appropriate use of water at each location and use “Aqueduct” and others to conduct analysis.

Investigations in fiscal 2014 confirmed that of the 14 NGK Group manufacturing bases located in regions that are highly water-stressed, four bases have a high quantity of water withdrawal (accounting for 10% of all manufacturing bases).

In analyzing conditions at these bases, it was determined that none faced any serious risks.

Note: Global water risk analysis tool made available to the public by World Resources Institute (WRI).

### Water Usage Guidelines

NGK created guidelines (an implementation status checklist) aimed at appropriate water usage and launched inspections to ascertain the efficacy of water usage at all manufacturing bases in Japan and overseas.

Going forward, we will attempt to expand these guidelines through case studies from each location while promoting initiatives appropriate for bases located in highly water-stressed regions.

### Examples of Group Company Initiatives

We strive to use precious water resources as appropriately and efficiently as possible, including the recycling of water used inside plants, at Group companies located in highly water-stressed regions.

For example, at NGK Ceramics Mexico, manufacturing process waste water is filtered using reverse osmosis membranes and the recycled water is reused as coolant and boiler water or sprinkled on vegetation.



Filtration device using reverse osmosis membranes

## Strengthening of Global Environmental Management

In accordance with the Guidelines for Environmental Action, 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.

### Mitigating Potential Risks Throughout the Group

All NGK Group companies in Japan and overseas have completed acquisition of ISO14001 or third-party certifications meeting this standard and implement environmental management in line with environmental management systems. NGK shares information regarding changes in domestic environmental laws and regulations with Group companies and has created a structure to ascertain the status of responses to these changes. Overseas, NGK Headquarters is enhancing its ability to regularly ascertain the status of responses and management in terms of important legal and regulatory system revision information in the countries and regions where Group companies are located.

Additionally, in fiscal 2014, NGK conducted a survey regarding past issues and countermeasures at all manufacturing bases, including those located overseas, to organize items that need confirmation aimed at mitigating potential risks. We will identify issues at each location based on these results and consider responses as necessary.

### Strengthening Environmental Management Linked to Business Planning

The NGK Group promotes environmental management responsive to continuously evolving business plans.

Initiatives aimed at reducing impacts on the environment in accordance with business plans include conducting forecast estimates and achievement evaluations in each business group, product line and global manufacturing base every six months to determine which initiatives to pursue next.

These efforts include the establishment of the Environmental Expert Committee under the NGK Environmental Protection Committee, as a company-wide decision-making body. The Environmental Expert Committee facilitates discussions among managers from planning and production divisions who 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 environmental management that combines global environmental

protection and corporate growth.

# Preservation of Global Environment

## Creating Products that Contribute to the Environment

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. For nearly a century since its founding, NGK has made use of accumulated technologies to develop and provide products and technologies that reduce burdens on the global environment.

### Contributing to the Preservation of the Global Environment through Products

The NGK Group makes an effort to develop products that contribute to the environment in response to societal needs including the automobile exhaust purification and the spread of renewable energy. Expanding the manufacturing capability and global delivery of products that contribute to the environment contributes to society and the environment.

#### Sales of Products that Contribute to Environmental



Products that Contribute to the Environment: Automotive exhaust purification ceramics, Nox sensors, NAS Batteries, etc.

### Development and Manufacture of Vehicle Exhaust Emissions Control Products

The NGK Group focuses on the development and manufacture of automobile exhaust countermeasure products by making full use of ceramics technologies.

#### "HONEYCERAM"

Catalyst Carrier for Purifying Automobile Exhaust Gas Honeycomb ceramic substrates containing catalysts that render potentially harmful substances harmless, such as nitrogen oxides (NOx), carbon monoxide (CO), hydrocarbons (HC), found in gasoline vehicle exhaust. It is indispensable for automobile exhaust purifiers and employed by automotive manufacturers in all countries around the world.



HONEYCERAM

▶ [HONEYCERAM](#)

#### Helping to reduce harmful substances in exhaust

Estimated annual reduction of harmful substances such as NOx and HC by HONEYCERAM produced by the NGK Group are listed on the right. (NGK estimates\*1)

**NOx:**  
4 million metric tons annually

**HC :**  
1 million metric tons annually

Roughly  
**2x**  
Japan's  
annual NOx  
emissions\*2

\*1. Assumes new vehicles without exhaust purification systems equipped with the same exhaust purification system

\*2. Source: OECD, OECD Environmental Data Compendium 2006/2007, Air

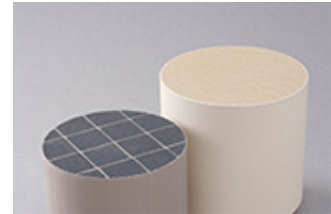
## Diesel Particulate Filters (DPF)

### Gasoline Particulate Filters (GPF)

DPF removes up to 99% of particulate matter (PM) in diesel engine exhaust from buses, trucks, cars and construction equipment. They also meet new strict exhaust regulations and support the adoption of clean diesel engine vehicles.

NGK also provides GPF that remove PM from the exhaust of gasoline direct injection engines.

- ▶ [Diesel Particulate Filters \(DPF\)](#)



Diesel Particulate Filters (DPF)

## High-precision in-vehicle NOx sensor

The NOx sensor is capable of measuring concentrations of nitrogen oxides (NOx) in real time at the parts per million (ppm) level. NGK was the first company in the world to successfully develop this product.

- ▶ [High-precision in-vehicle NOx sensor](#)



High-precision in-vehicle NOx sensor

## NOx Sensor Wins Okochi Memorial Production Prize

NGK's NOx sensor won the Okochi Memorial Foundation 61st (FY 2014) Okochi Memorial Production Prize.

The world's first in-vehicle NOx sensor was recognized for the originality and innovation of its development and manufacturing technologies, and highly evaluated for the substantial contribution it has made to the spread of clean diesel vehicles.

- ▶ [NOx Sensor Wins Okochi Memorial Production Prize](#)



Award ceremony conducted at The Industry Club of Japan (Chiyoda Ward, Tokyo)

## Contributing to the Resolution of Global Environmental Problems through the Design of the NOx Sensor

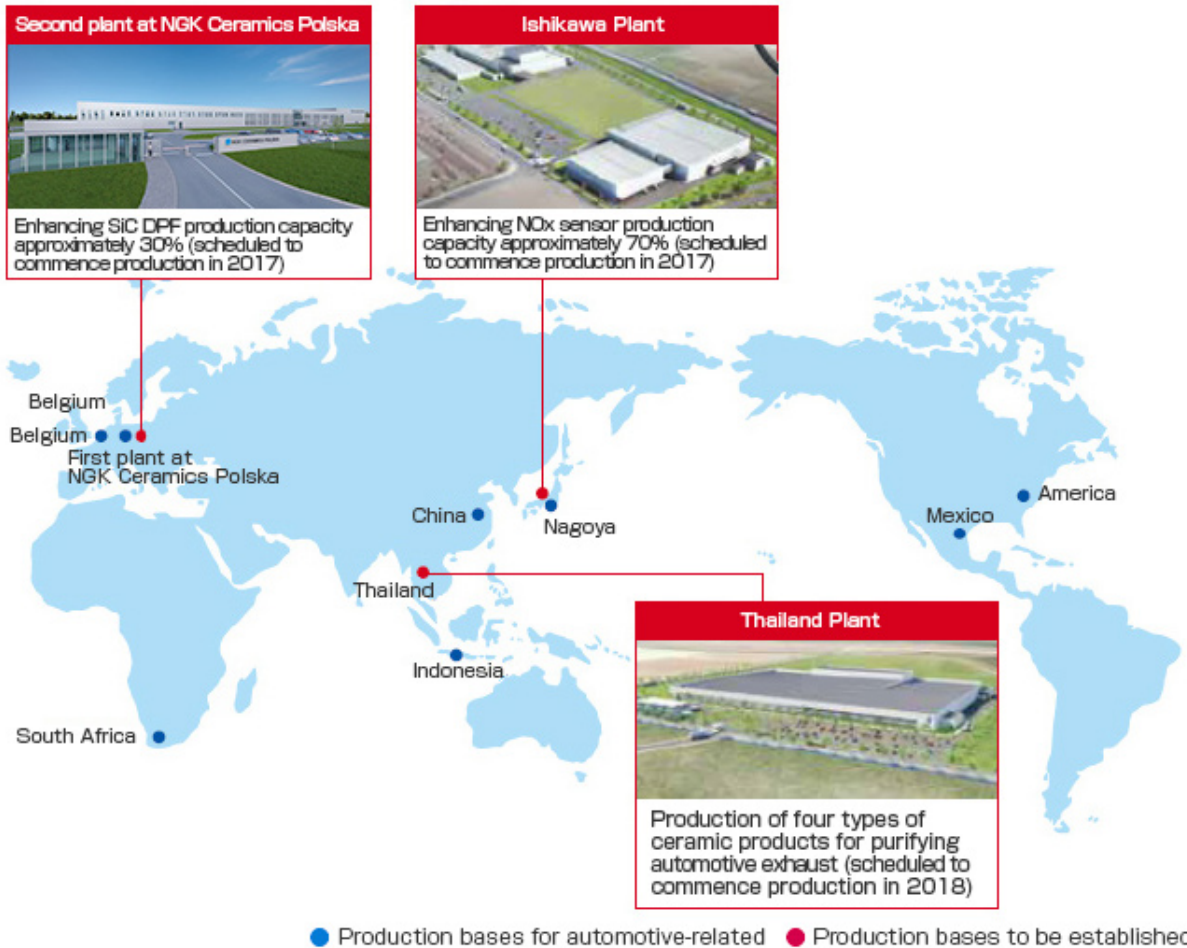
**Mika Murakami, Sensor Division, Ceramics Business Group**

I am in charge of design for the NOx sensor. Detecting NOx concentrations in real time and providing that information to the engine control unit controls the precision of the exhaust purification device, and enables the reduction of NOx emissions. In response to tightening restrictions on NOx in the United States and Europe, the installation rate of NOx sensors increases every year. Although responding to the needs of customers and society keeps me quite busy every day, I feel there is great meaning in doing a job that significantly contributes to the resolution of global environmental problems through the spread of clean diesel vehicles.



## Enhancing the Manufacturing Capability of Vehicle Exhaust Emission Control Products in Response to Market Demands

The NGK Group has been expanding and upgrading its global production structure capability in response to increasing demand driven by the tightening of automobile exhaust regulations around the world and increased auto sales in developing countries.



## NAS Battery Systems for Large-Capacity Electric Energy Storage

NGK was first in the world to commercialize the megawatt-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. They help with load leveling at times of peak demand, stabilize intermittent renewable energy and contribute to power-saving measures reducing the overall environmental impacts of using renewable energy.



NAS battery

### NAS Battery Wins the Gold Prize at the 2015 Aichi Environmental Awards

NGK received the Gold Prize for its NAS Battery System at the 2015 Aichi Environmental Awards held by the Aichi Prefecture. NAS batteries meet a variety of needs, including electricity load leveling, emergency power sources, control of output fluctuations from renewable energy sources, and stabilization of electrical power systems. NAS battery systems were evaluated highly for their contribution to reducing environmental impacts through resource and energy savings.

The Aichi Environmental Award recognizes effective pioneering initiatives taken by companies, groups and other organizations



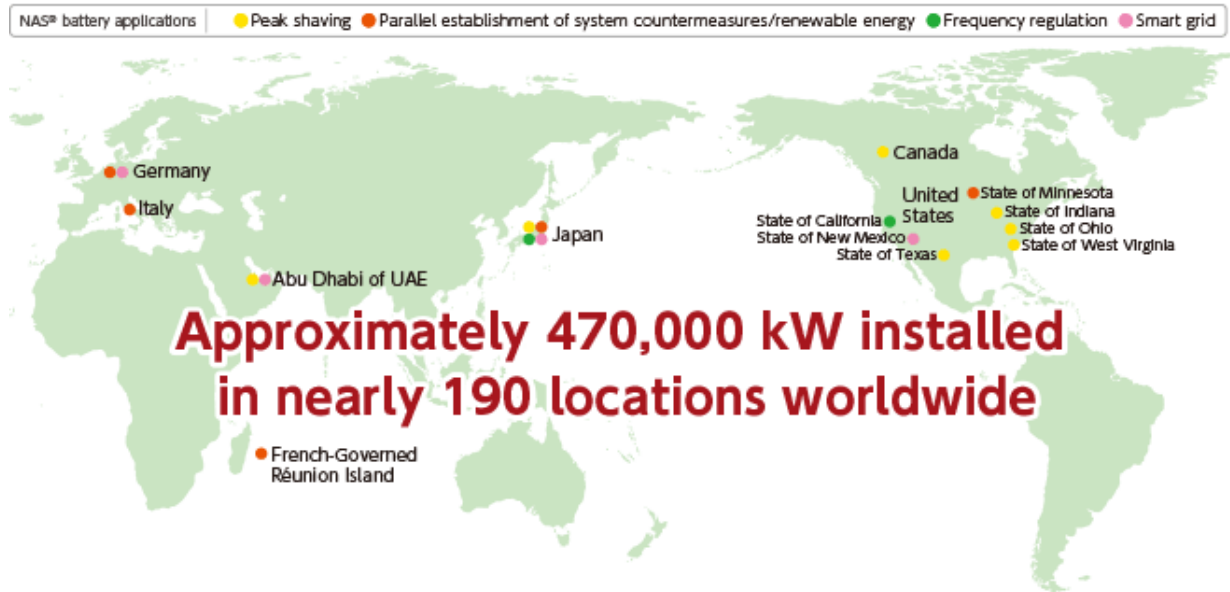


aimed at recycling resources and reducing environmental impact.

This is the second time that NGK has won the Gold Prize. The first time was in 2006, when it won the prize with a group of five companies, led by NGK, and Tahara City, Aichi for a project to manufacture and recycle carbide from burnable waste.

▶ [The Aichi Environmental Awards Gold Prize](#)

## NAS Batteries throughout the World



## Developing and Providing Products Responding to Various Global Environmental Issues

### Safe Disposal of Radioactive Waste

The NGK Group delivers incineration systems for the safe incineration disposal of combustible low-level radioactive waste produced by nuclear power plants to all nuclear power plants and several research facilities in Japan.

Non-combustible low-level radioactive waste (metal, glass, concrete, etc.) must be physically and chemically stabilized when buried underground.

To meet this requirement, 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.

We also provide high-pressure compression presses and dry blast decontamination equipment as disposal equipment for the large amount of radioactive waste generated from reactor decommissioning.



Rotary kiln combustable solid waste incinerator



Induction-Heat Melting/Solidification System

▶ [Low-Level Radwaste Treatment System](#)

## Shortening the Solvent Drying Process, Reducing Environmental Impact

The solvent drying process is indispensable in the production of high performance films used in computers and smartphones.

The proprietary [wavelength control 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, increasing traditional drying capabilities several times over and enabling shortened drying times and energy savings.



Wavelength control drying system realizing significant energy savings

## Removing Black Smoke from Diesel Power Generators

NGK developed the [CERALLEC](#) system for removing over 99% at maximum of PM (black smoke particulate matter) from diesel power generators applying ceramic filter manufacturing technologies conforming to strict standards for vehicle exhaust gas. The system contributes to the prevention of air pollution and health hazards at power stations and manufacturing facilities around the world.



CERALLEC

# Preservation of Global Environment

## Biodiversity Initiatives

In addition to the aim of realizing a sustainable society, the NGK Group also recognizes the conservation of biodiversity as an important issue for the company and is engaged in the following initiatives.

### Activities Aimed at Achieving the “Aichi Target”

This section introduces activities conducted by the NGK Group in consideration of the Declaration of Biodiversity by Keidanren (Japanese Business Federation) and the “Code of Conduct Relating to the Conservation of Biodiversity in the Electrical and Electronics Industries” formulated by four electrical and electronic industry associations in Japan (JEMA, JEITA, CIAJ and JBMIA) with respect to the “Aichi Target” international goals for biodiversity agreed upon at The Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 10: Nagoya, 2010).

Aichi Target		NGK Activities
Target 1	Spread awareness	Employee environmental education (Eco Point System, Eco Test taking support), next-generation education (Guest lectures at elementary schools, employee environmental education lecturer volunteers)
Target 4	Sustainable production and consumption	CO2 reductions, reduction of discarded materials, promotion of recycling, effective use of water, green procurement, expanding sales of products that promote the introduction of renewable energy (NAS® batteries)
Target 5	Inhibit loss of all natural habitats	Participation in volunteer activities including maintenance of Asian skunk cabbage colonies (NGK Okhotsk), “OISCA Forest” (Aichi Prefecture) forestation (NGK)
Target 8	Control pollution by chemical substances, etc.	Strengthen chemical substance management, management of exhaust and waste water, expanding sales of products that prevent air pollution (ceramic products to purify automotive exhaust, NOx sensors, etc.)
Target 11	Conserve protected areas	Participation in volunteer activities including maintenance of Asian skunk cabbage colonies (NGK Okhotsk), “OISCA Forest” (Aichi Prefecture) forestation (NGK)
Target 14	Ecosystem services	Participation in volunteer activities including maintenance of Asian skunk cabbage colonies (NGK Okhotsk), “OISCA Forest” (Aichi Prefecture) forestation (NGK)

### Specific “Aichi Target” Initiatives

#### Plant Initiatives

NGK Group production site initiatives include CO2 reductions, the reduction of discarded materials, the promotion of recycling, the effective use of water, green procurement and expanding sales of products that promote the introduction of renewable energy aimed at sustainable production and consumption. In terms of controlling pollution by chemical substances, we are engaged in strengthening chemical substance management, management of exhaust and waste water and expanding sales of products that prevent air pollution.



## Environmental Contribution Activities

The NGK Group promotes environmental contribution activities that involve regions and communities, including wetland and forest preservation activities from the perspective of biodiversity.

Also, NGK provides information on its intranet regarding information on volunteering opportunities with OISCA-International, a charity engaged in tree planting and environmental protection, enabling employees to participate in tree planting and grass cutting activities.



Assisting with maintenance of Asian skunk cabbage colonies (NGK Okhotsk)

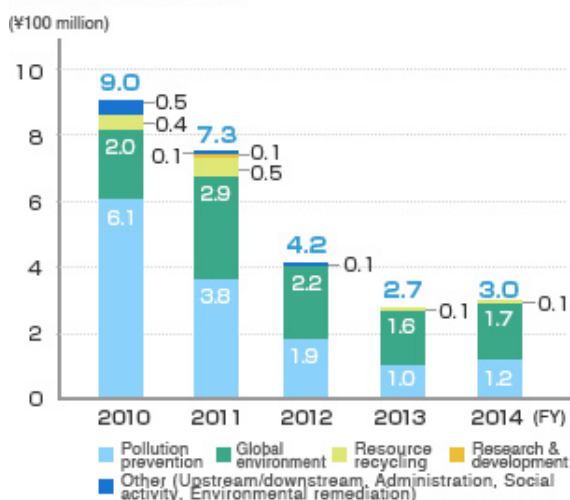
# Preservation of Global Environment

## Environmental Accounting

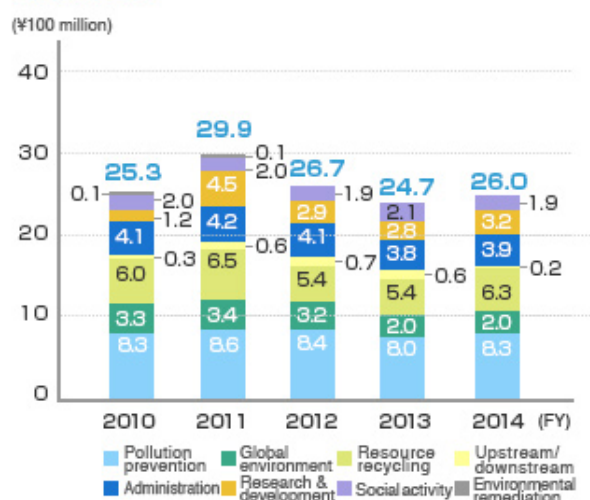
As an important index of environmental management, NGK has begun conducting environmental accounting and announcing the results. In addition to announcing the costs of environmental conservation (capital investment, expenses), the economic benefits of environmental accounting, and the cost effectiveness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

### Environmental Conservation Cost (NGK and Domestic Group Companies)

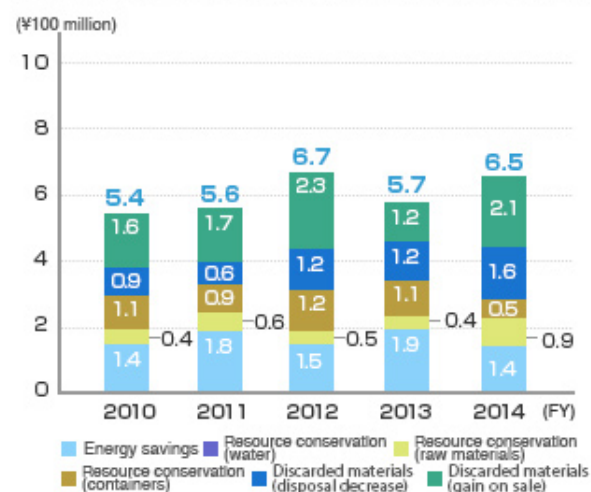
#### Capital Investment



#### Expenditures



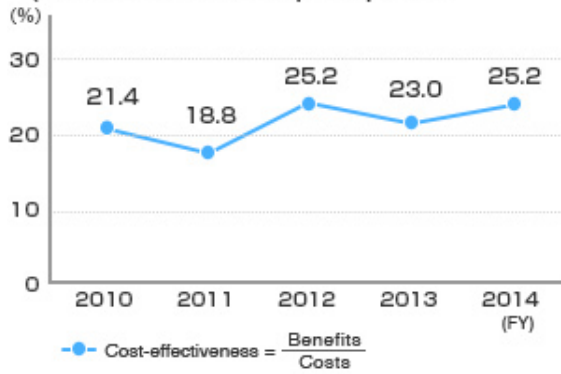
### Economic Benefits (NGK and Domestic Group Companies)



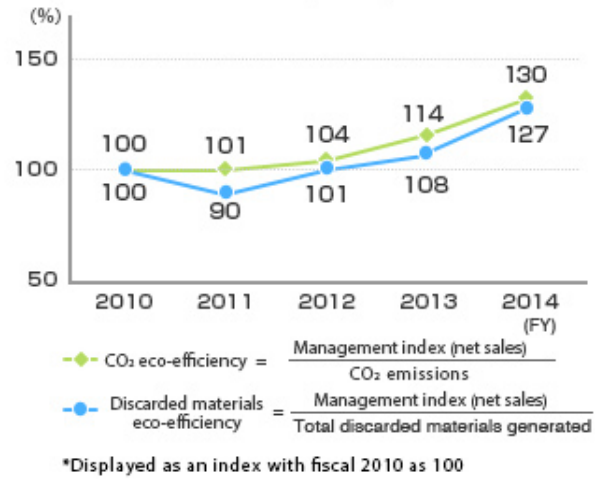
The numerical values in these graphs have been rounded up.

\* 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)



**Aggregate Results**

Environmental conservation costs on a domestic consolidated basis in FY2014 came to ¥300 million in capital investment (up 10.4% from the previous fiscal year) and ¥2.60 billion in expenses (up 5.4% from the previous fiscal year). The direct economic benefits of environmental conservation measures on a domestic consolidated basis were ¥650 million (up 15.4% from the previous fiscal year), while cost effectiveness was 25.2%, up 2.2 points from FY2013. At the same time, CO<sub>2</sub> environmental efficiency on a domestic consolidated basis improved 16 points, while discarded material environmental efficiency improved 19 points compared to the previous fiscal year.

# Preservation of Global Environment

## Environmental Education and Communication

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In accordance with NGK's Core Policy on the Environment, we conduct ongoing environmental education and awareness activities through the establishment of action guidelines for educational and publicity activities aimed at increasing employee environmental awareness. Our aim is to deepen the understanding of environmental problems among each employee to inculcate an awareness of environmental conservation activities.

We also provide on-site classes at elementary schools and conduct environmental events and provide information to a wide range of stakeholders including the next generation to increase environmental awareness.

### 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.

### Environmental Lectures

In March 2015 an environmental lecture was held to study environmental management attitude through explanations of case studies and approaches to environmental initiatives by advanced companies. This lecture invited people responsible for environmental management promotion from the Japan's leading environmental company as a lecturer, who explained his company's environmental vision, energy saving and resource conservation activities at factories, environmental contribution through products, social contribution activities and appeals to stakeholders using case studies illustrating environmental management at the leading corporation (approximately 150 domestic Group company employees from related divisions participated).

In addition, a specialist from outside the company was invited as a lecturer to conduct environmental education on the topic of mitigating risks and the proper disposal of waste from construction work, etc., which taught employees important points with respect to avoiding risks when disposing waste generated through construction work, etc. (approximately 60 domestic Group company employees from related divisions participated).



### Promoting the Acquisition of Qualifications

To continue conducting environmental conservation activities in compliance with laws and regulations, we make an effort to develop and increase the skills of legally qualified personnel through support in each department for the acquisition of environment-related legal qualifications targeting managers engaged in pollution prevention required for the management of each area.

We systematically educate Qualified Energy Managers in the Engineering Department, Special Controlled Industrial Waste Managers and others involved in waste-related activities in the Environmental Management Department and other business divisions. Managers involved with the prevention of pollution in each business division also receive systematic training, while anyone required to study for and take qualification exams by the Environmental Management Department receives expenses provided by each divisions.

### Qualifications Acquired as of March 31, 2015 (NGK)

Pollution Control Managers			Qualified Energy Managers	Special Controlled Industrial Waste Managers	Waste Disposal Facility Technical Managers
Air	Water	Noise/Vibration			
66	84	14	18	14	4

## Support for Acquisition of Eco Test Certification

NGK supports employees sitting for the Eco Test\* in an aim to ensure each employee acquires a strong environmental awareness and a wide range of knowledge with respect to the environment.

Company support includes the lending of reference materials to those who require them and the provision of test-related expenses. Up to now, a total of 379 people, more than 10% of employees, have passed the test. In fiscal 2014, 126 employees sat for the test and 94 passed (a pass rate of 74.6%).

\* The Eco test is an environmental and social certification test administered by the Tokyo Chamber of Commerce and Industry focused on a wide-range of environmental issues. The first test was administered in October 2006, and has been held in July and December every year since. In fiscal 2014, 25,790 people sat for the test nationwide, of which 13,028 people passed (a pass rate of 50.5%).

## Ecology-Related Team Building Exercises

In October 2014 at NGK Ceramics Polska, around 160 employees participated in regularly scheduled team building exercises. In these exercises, teams are given specific topics through which they attempt to enhance relationships of trust and organizational capabilities. In fiscal 2014, the theme of these exercises was ecology. Teams worked together to create miniature solar and wind power generators.

## Various Employee Initiatives

### ·On-site classes on the topic of “water”

For details, please see [“Interaction with Society”](#)

### ·NGK Eco Point System

For details, please see [“Support for Volunteer Activities by Employees”](#)

### ·“Insect Classrooms” Taught by Employees

For details, please see [“Interaction with Society”](#)

### ·OISCA Forestation Volunteer Activities

For details, please see [“Support for Volunteer Activities by Employees”](#)

# Connection to Society

## Basic Approach

The NGK Group promotes social contribution activities based on the following concepts.

### Focus of Activities

Centered on people and education, the environment and community involvement.

### Company Activities and Employee Involvement

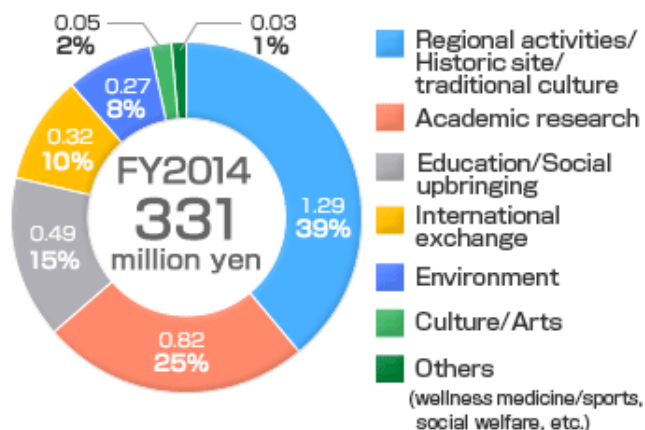
- NGK provides employees with opportunities to experience activities.
- NGK proactively encourages individual activities to engender employee satisfaction and a sense of confidence in the company.

### Information Disclosure

NGK promotes an understanding of activities and provides activity information to inculcate a social contribution mindset among employees.

### Social Contribution Activity Promotion Status

	2012	2013	2014
Social contribution expenditures	346 million yen	348 million yen	331 million yen
Number of social contribution programs	9	9	8
Number of collaborations with NPO/NGO	2	3	5





## Connection to Society

# Provision of Scholarships and Living Assistance to Foreign Students

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NGK conducts ongoing support activities launched in 1997 with the establishment of [the NGK Foundation for International Students](#). The Foundation provides housing and scholarships to foreign students visiting Japan with the aim of contributing to human resource cultivation that fosters the development of an international community. In fiscal 2014, we provided housing for 39 students from five countries and scholarships to 20 students from 10 countries.

### Exchange between Supported Students, Communities and Employees

NGK conducts a variety of events that are opportunities for grassroots international relations among supported students, regional communities and employees. Since fiscal 2000, we have conducted language classes taught by foreign students. Since 2006, we have held cross-cultural exchange meetings where foreign students introduce their native countries. In fiscal 2014, Chinese and Korean language classes were held 20 times, while cross-cultural exchange meetings introducing foreign students from eight countries, including Sweden, Malaysia, Sri Lanka and Mongolia, were held 10 times.



Learning Chinese language basics: the four tones



Korean language classes, popular with the ladies



Mongolian cultural exchange event







Swedish cultural exchange event



Malaysian cultural exchange event

## Communication After Support Ends

To maintain relationships with supported foreign students after support ends, each year, we send out a New Year's greeting that includes a company status report to former participants and supported students. We also distribute "NGK International Friendship Club Members Cards" that include our contact information to foreign students after support ends.

In fiscal 2014, we sent New Year's greetings to approximately 300 people out of the total number of supported foreign students up to then. We also receive status reports and other ongoing communications from supported foreign students.

### CLOSE UP!

#### Roundtable Discussion Facilitates Exchange between Supported Foreign Students and NPO

In October 2014, NPO Shingi-Juku Network held a social event attended by NGK employees (former scholarship students) and supported foreign students where 20 participants engaged in a roundtable discussion. NPO Shingi-Juku Network is an NPO staffed mainly by corporate veterans engaged in activities aimed at cultivating the next-generation human resources and creating a better society. The exchange was conducted with the intent of thinking about Japan anew from a global perspective.

The employees and foreign students in attendance expressed their wishes regarding how they want to make use of what they learned in Japan to develop society or their home countries. Participants shared experiences and thoughts in response to the questions "What good things about Japan do you want to spread around the world?" and "What Japanese behaviors or ways of thinking need improvement?" Members of the NPO noted "comments based on the foreign students' keen powers of observation and intuitions were extremely enlightening in terms of portraying a new image of Japan."



Hendri Taufan joined NGK after having been a scholarship student. "I want to contribute to global environmental conservation through ceramics



Swedish university student Saez Annie Alanah



Malaysian graduate student Nur Izzah Binti Norshariffudin

technologies that make  
exhaust gas emissions  
clean.



Approximately 20 people participated in the roundtable discussion

# Connection to Society

## Social Contribution Activities in Collaboration with Regional Communities and NPOs

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Aiming to be a corporate citizen trusted by local communities, NGK collaborates with local communities and NPOs to engage in social contribution activities in response to regional needs. In addition, employee volunteers from NGK Group companies in Japan and around the world conduct a variety of social contribution activities rooted in their local communities.

### Donating Emergency Supplies, Cooperating with Foodbanks

NGK promotes foodbank initiatives, including donating water and food nearing its expiration date from emergency supplies prepared in the event of a disaster, to organizations that support needy people and foreigners.

In April 2014, aiming to make effective use of food and contribute to society, NGK headquarters and the Chita and Sendai Sites donated food from emergency supplies to NPO Second Harvest Nagoya. This is the second time NGK has contributed food from its emergency supplies to a support organization after having provided mineral water from the Komaki Site in March 2014. This time, mineral water and canned bread was provided. NGK plans to continue these activities in fiscal 2015 and beyond.



Provided around 3,000 cans of canned bread and around 5,000 bottles of mineral water.

### Employee Volunteer Activities

NGK employees cooperate with local citizens to engage in environmental conservation and regional invigoration activities.

<In Japan>

NGK	October 2014 Employee volunteers set up a booth for conducting experiments at the Nagoya City Science Museum
Social Welfare	Soshin Electric Co., Ltd. October 2014 Musical performance volunteer activities at meetings to show respect for the aged and other events
Regional Communities	NGK Ceramic Device Co., Ltd. July 2014 Roadside clean-up activities near the company
Environmental Conservation	NGK Okhotsk, Ltd. April 2015 Maintenance of Asian Skunk Cabbage Colonies at Abashiri Lakeside

<Outside Japan>

International Exchanges	NGK Ceramics Polska Sp. z o. o. February 2015 Conducted plant tours for Nagoya Gakuin University students
Local Communities	NGK Metals Corporation December 2014 Distributed Christmas presents to children

**CLOSE UP!**



## Introducing Some of NGK's Social Contribution Activities Overseas

### Pink Ribbon Contest (United States)

In October 2014, approximately 50 employees at NGK-Locke Polymer Insulators, Inc., participated in a pink ribbon contest that involved pink-themed fashion coordination. These activities, which began independently three years ago, are part of the pink ribbon campaign promoting early breast cancer screenings.



### Town Beautification with Flowers and Greenery (United States)

In May 2014, employee volunteers from NGK Metals, located in Sweetwater, Tennessee, cleaned up and maintained the town's flowerbeds. This activity, conducted several times a year since 2009, attempts to contribute to the region and increase environmental awareness among employees.



### First-Time Participation in a "Year-End Charity Drive" (Poland)

NGK Ceramics Polska participated for the first time in a year-end charity drive conducted throughout Poland called the "Nobel Package." Daily necessities such as food and clothing brought by employee volunteers were delivered to the indigent through volunteer organizations.



### Eighth Consecutive Annual Charity Run (Germany)

In June 2014, NGK Europe GMBH participated for the eighth straight year in a charity jogging event held in Frankfurt where donations are collected and provided to organizations that support the physically challenged. 35 employees wearing matching shirts ran 5.6 km.



## Connection to Society

### Support for Volunteer Activities by Employees

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The NGK Group proactively supports activities and provides information to create opportunities for employees to participate in volunteering outside the company.

#### Donating Meals to Children in Africa through TABLE FOR TWO Initiatives

Since September 2010, NGK has participated in the TABLE FOR TWO (TFT) program as a volunteer activity employees can easily participate in. When a meal is ordered from the employee cafeteria's healthy menu, a donation equivalent to one school lunch (20 yen) is provided to children in Africa. All NGK cafeterias (eight cafeterias in four areas) participate in this program.

In fiscal 2014, the equivalent of approximately 44,700 meals were donated. Cumulatively, 170,000 meals (equivalent to a full year of school lunches for approximately 770 children) have been donated. For the fourth year in a row, the TFT organizers presented NGK with a letter of appreciation in light of our contribution to these activities.

NGK Group companies NGK Yu-Service Co., Ltd., NGK Metex Corporation and NGK Fine Molds, Ltd. contribute to the TABLE FOR TWO program through installing TFT-labeled vending machines.



#### Group Volunteer Participation in Marathon Festival Nagoya-Aichi

Approximately 60 employee volunteers participated in a group volunteer activity intended to enliven the Marathon Festival Nagoya-Aichi, in Nagoya city, a major local event held in March 2015. The volunteers supported operations by providing runners with water and maintaining the course.



#### Volunteer Participant Feedback

### Supporting Runners with Colleagues and Workplace Friends!

Naomi Kinoshita, Environmental Management Department

Motivated by the call of the company, I participated as a group volunteer because I wanted to contribute to this major local event. I supported race operations and was responsible for maintaining the course, setting up colored cones to ensure runner safety and providing guidance to avoid time loss as the runners battled for a record finish. I want to participate again next year, and will invite my colleagues and workplace friends to join me.



Approximately 60 employees volunteered



The race begins. Spectators are advised of traffic restrictions



Through exceptional teamwork, the staff provides water to the tight crowd of advancing runners

### Providing Employees with Volunteer Information

To create opportunities for employees to volunteer outside work, NGK provides information on its intranet pertaining to volunteer activities. Employees in Japan and overseas signed up for numerous volunteer activities, including tree-planting and grass-cutting activities, conducted by the public interest incorporated foundation OISCA International and other organizations that undertake tree-planting and environmental conservation initiatives.



## 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 funds such as 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.

In June 2014, points accumulated under the Eco Point system were converted into cash contributions that were donated to environmental-related funds operated by regional municipalities in the vicinity of the Head Office, Chita and Komaki sites and the Ishikawa Plant. Cash contributions were used for greening activities and the purchase of seedlings for trees planted to control the movement of sand.



Head Office: (Left) Environmental department manager, Nagoya City; (right) General Manager of NGK's AC Plant



Chita Site: (Left) Manager of NGK's Chita General Affairs Group; (right) Mayor of Handa City in Aichi Prefecture



Komaki Site: (Left) General Manager of NGK's Komaki Site; (right) Mayor of Komaki City in Aichi Prefecture



Ishikawa Plant: (Left) former General Manager of NGK's Ishikawa Plant; (right) Mayor of Nomi City in Ishikawa Prefecture

■NGK Eco Point participants: 3,572 people

■Examples of Employee Environmental Activities

Passing the Certification Test for Environmental Specialists

Participating in Household Environmental Accounting

Participating in green curtain activities

Participating in regional cleanup activities

Eco-driving, etc.



## Connection to Society

# Collaborating with the Worker's Union to Conduct Social Contribution Activities

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### Cleanup Activities Around Plants

As a member of regional communities, the NGK Group proactively participates in cleanup activities around its plants. In fiscal 2014, these activities were conducted at all NGK sites and the Ishikawa Plant, as well as at each Group company. In cooperation with NGK Yu-Service Co., Ltd., and NGK Building Services, Ltd., the NGK Worker's Union has participated in cleanup activities around the NGK Head Office and a nearby park for the past 22 years. These activities were conducted three times in 2014, with nearly 700 people participating in park beautification efforts.



### Cherry Tree Planting and Recovery Support Tour

In April 2014, 22 employees participated in the “Cherry Tree Planting and Reconstruction Support Tour” project created by the NGK Worker's Union, which planted 21 cherry trees around Wakabayashi-ku in Sendai City, Miyagi Prefecture. From October to December 2013, the Worker's Union called for donations internally to the “Sakura Fund,” then planned a tour to deliver the collected funds directly to disaster-stricken areas.



#### ■The Sakura Fund

This fund intends to provide economic recovery support in the form of tree planting and other programs conducted in disaster-stricken areas. Through the planting of cherry trees at the highest point reached by the massive tsunami after the Great East Japan earthquake, the memory of the disaster caused by the massive tsunami will never fade. This project is organized by NPO Sakuranamiki Network.



- ▶ [PO Sakuranamiki Network Website](#)

# Connection to Society

## Interaction with Society

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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

### Plant Tours

#### Interactions with Children and Local Residents

NGK attempts to interact with regional communities through plant tours to deepen interest in and understanding of NGK and manufacturing. In fiscal 2014, we conducted 13 plant tours at four sites for a total of 293 participants consisting of elementary school students and local residents.

#### Plant Tours in Fiscal 2014 (NGK)

	Tours	Participants	Details
Nagoya (Head Office)	6	124	Students from Aichi Prefectural Kariya Senior High School, Nagoya Municipal Tsukata Junior High School and others
Chita Site	1	61	Tour for local residents
Komaki Site	3	46	Tour for local residents and Aichi Prefectural Kasugainishi Senior High School students
Ishikawa Plant	3	62	Ishikawa Prefectural Terai High School students

#### Plant Tour for Local Residents at the Chita Site

In November 2014, NGK conducted a plant tour for local residents at the Chita Site in an attempt to communicate directly with stakeholders.

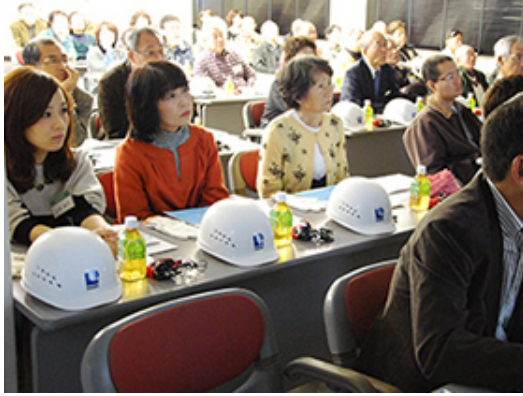
The tour introduced insulator and beryllium copper production and inspection processes, prompting comments and questions from local residents. This was the 31st time this tour was conducted, and many participants said they developed a deeper understanding of NGK business activities.



Chita Site General Manager providing a product explanation.



61 local residents participated in the plant tour and observed insulator and beryllium copper production and inspection processes.



A variety of questions and comments were received, ranging from product development to NGK's corporate philosophy, plant environmental responses, disaster measures and initiatives ensuring worker safety.

### Collaboration with the Mizuho Ward Industrial Culture Bus Tour

In August 2014, NGK collaborated with the Mizuho Ward industrial culture bus tour by hosting a plant tour for a total of 40 fifth and sixth grade elementary school students living in Mizuho Ward participating in the bus tour. The children observed the HONEYCERAM® production process and learned about NGK as one of its local companies.



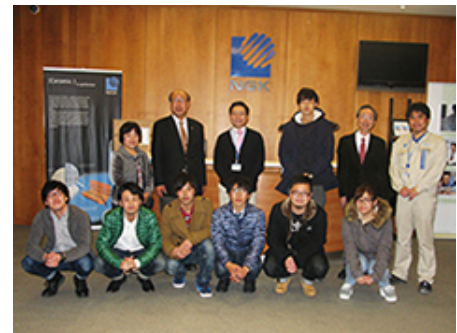
The General Affairs Division manager provides an overview of the company.



The children showed a strong interest in NGK products at the product display corner.

### Plant Tour for Students at NGK Ceramics Polska

In February 2015, NGK Ceramics Polska conducted a plant tour for 10 students from Nagoya Gakuin University's Department of Economics. As one aspect of its social contribution activities, for the past five years NGK Ceramics Polska has been accepting overseas research students from Nagoya Gakuin University. The students participating in the tour observed silicon carbide (SiC) diesel particulate filter (DPF) production, inspection and packaging.



Students visit NGK Ceramics Polska

### NGK Holds its Annual Summer Festival

In July 2014, the Komaki Site held its annual NGK Summer Festival, marking the 48th year of this event, which drew local residents, employees and their families totaling approximately 2,300 people. On stage, local Japanese drum teams performed and songs and dances were presented.

The NGK Worker's Union provided carnival booths offering goldfish scooping and other games bustling with children. The annual raffle event offered luxurious prizes including NGK C1 home-use water purifiers, liquid crystal televisions and tickets for sightseeing by helicopter, which created excitement throughout the venue.





Crowds gathered in front of the stage from the event opening



A Worker's Union member hands out game prizes



Offering drinks and food including fried chicken and fried cutlet skewers, the refreshment booths were also popular

## Collaboration on Environmental Education

### Conducting Guest Lectures at Elementary Schools

NGK collaborates with Environmental Partnership Organizing Club (EPOC)\* on next-generation educational activities by conducting guest lectures for elementary school students. Up to now, NGK has participated in guest lectures presented to approximately 1,800 elementary school students. The importance of water resources is conveyed through lectures using an original textbook created by NGK, picture-story shows, quizzes and experiments.

In fiscal 2014, guest lectures were conducted four times for 240 elementary school students. Going forward, NGK will continue conducting environmental education for the next-generation who will lead the future.

Note: Comprised mainly of environmental opinion leaders from industries located in Japan's Chubu region, this organization was established in February 2000 with the intent of creating the world's leading environmentally advanced region and establishing a "recycling-based economic society" while disseminating information regarding environmental responses.



Students were filled with strong interest and concern when asked "Other than soil, activated charcoal and silica gel, what else can make water transparent?"



"The colored water turned transparent!" says the child with a smiling face

### Employee Volunteers Teach Parent-Child Insect Classes

At Tsuruma Park in Nagoya's Showa Ward, NGK employees teach "Summer Break Insect Observation classes for parents and their children (sponsored by the Nagoya City Greenery Association), introducing the various names and ecosystem of insects living in the park.

Through the experience of seeing and touching actual cicada, dragonflies and other insects, the children's eyes sparkled as they became aware of how many insects live close to them.



Each year, the number of participants exceeds the class capacity of 50 people.

# GRI Guidelines ISO26000 Comparison Table

## Standard Disclosures

		ISO26000 Issues	Publication Location	
			Web Version Full Report	Print Version
<b>Strategy and Analysis</b>				
G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Management's Commitment</a></li> </ul>	P5-6 Management's Commitment
G4-2	Provide a description of key impacts, risks, and opportunities.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Management's Commitment</a></li> <li>▪ <a href="#">Risk Management</a></li> <li>▪ <a href="#">Special Feature-New Manufacturing Structural Innovations Challenging Toward 2020</a></li> <li>▪ <a href="#">Realization of Higher Quality Products and Services</a></li> <li>▪ <a href="#">Preservation of Global Environment</a></li> </ul>	P5-6 Management's Commitment P7-12 Special Feature: New Manufacturing Structural Innovations Challenging Toward 2020 P15-18 Realizing Our Corporate Philosophy > Providing Products and Services that Contribute to the Social Environment; Aiming for the Realization of High Quality Products and Services P19-20 How to Engage in Business Activities > Thorough Compliance and Risk Management P26-30 As a Member of Society > Global Environmental Conservation
<b>Organizational Profile</b>				
G4-3	Report the name of the organization.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK</a></li> </ul>	P3 NGK At a Glance > Corporate Outline
G4-4	Report the primary brands, products, and services.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Products</a></li> </ul>	P3 NGK At a Glance P7-12 Special Feature: New Manufacturing Structural Innovations Challenging Toward 2020 P15-18 Realizing Our Corporate Philosophy > Providing Products and Services that Contribute to the Social Environment; Aiming for the Realization of High Quality Products and Services
G4-5	Report the location of the organization's headquarters.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK</a></li> </ul>	P3 NGK At a Glance > Corporate Outline
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK</a></li> <li>▪ <a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Subsidiaries and Affiliated Companies (P72-73)</a></li> </ul>	P3 NGK At a Glance > Corporate Outline
G4-7	Report the nature of ownership and legal form.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK</a></li> <li>▪ <a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Subsidiaries and Affiliated Companies (P72-73)</a></li> </ul>	P3 NGK At a Glance > Corporate Outline P13 Corporate Governance

G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK &gt; Corporate Outline</a></li> </ul>	P3 NGK At a Glance
G4-9	<p>a. Report the scale of the organization, including:</p> <ul style="list-style-type: none"> <li>▪ Total number of employees</li> <li>▪ Total number of operations</li> <li>▪ Net sales</li> <li>▪ Total capitalization broken down in terms of debt and equity</li> <li>▪ Quantity of products or services provided</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK &gt; Corporate Outline</a></li> <li>▪ <a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Financial Highlights (P1); Subsidiaries and Affiliates (P72-73)</a></li> <li>▪ <a href="#">Products</a></li> </ul>	P3 NGK At a Glance > Corporate Outline
G4-10	<ul style="list-style-type: none"> <li>▪ Report the total number of employees by employment contract and gender.</li> <li>▪ Report the total number of permanent employees by employment type and gender</li> <li>▪ Report the total workforce by employees and supervised workers and by gender</li> <li>▪ Report the total workforce by region and gender.</li> <li>▪ Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors.</li> <li>▪ Report any significant variations in employment numbers</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Respect for People and Ensure Comfortable Workplace</a></li> </ul>	
G4-11	<ul style="list-style-type: none"> <li>▪ Report the percentage of total employees covered by collective bargaining agreements.</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Financial Highlights (P1)</a></li> </ul>	
G4-12	<ul style="list-style-type: none"> <li>▪ Describe the organization's supply chain.</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Supply Chain</a></li> </ul>	P24-25 How to Engage in Business Activities > Supply Chain
G4-13	<p>Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain, including:</p> <ul style="list-style-type: none"> <li>▪ operations, including facility openings, closings, and expansions</li> <li>▪ Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations)</li> <li>▪ Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">Special Feature-New Manufacturing Structural Innovations Challenging Toward 2020</a></li> <li>▪ <a href="#">Supply Chain</a></li> <li>▪ <a href="#">Preservation of Global Environment</a></li> </ul>	<p>P7-12 Special Feature New Manufacturing Structural Innovations &gt; The Global Spread of Manufacturing and Personnel Training</p> <p>P24-25 How to Engage in Business Activities &gt; Supply Chain</p> <p>P26-30 As a Member of Society &gt; Global Environmental Conservation</p>
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> <li>▪ <a href="#">Thorough Compliance</a></li> <li>▪ <a href="#">Risk Management</a></li> <li>▪ <a href="#">Respect for People and Ensure Comfortable Workplace</a></li> <li>▪ <a href="#">Supply Chain</a></li> </ul>	<p>P19-20 How to Engage in Business Activities &gt; Thorough Compliance and Risk Management</p> <p>P21-23 How to Engage in Business Activities &gt; Employee Respect</p> <p>P24-25 How to Engage in Business</p>



				Activities > Supply Chain
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	-	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management &gt; Human rights initiatives</a></li> </ul>	P14 CSR Management > Promoting Human Rights Initiatives
G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>▪ Holds a position on the governance body</li> <li>▪ Participates in projects or committees</li> <li>▪ Provides substantive funding beyond routine membership dues</li> <li>▪ Views membership as strategic</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management &gt; Human rights initiatives</a></li> </ul>	P14 CSR Management > Promoting Human Rights Initiatives

### Identified Material Aspects and Boundaries

G4-17	<ul style="list-style-type: none"> <li>▪ List all entities included in the organization's consolidated financial statements or equivalent documents.</li> <li>▪ Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">About NGK</a></li> <li>▪ <a href="#">Preservation of Global Environment</a></li> <li>▪ <a href="#">CSR Report 2015 Editorial Policy</a></li> </ul>	P1 Editorial Policy P26-30 As a Member of Society > Global Environmental Conservation > Environmental Conservation Activities Covered in This Chapter *Environmental only
G4-18	<ul style="list-style-type: none"> <li>▪ Explain the process for defining the report content and the Aspect Boundaries.</li> <li>▪ Explain how the organization has implemented the Reporting Principles for Defining Report Content.</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> <li>▪ <a href="#">CSR Report 2015 Editorial Policy</a></li> </ul>	P1 Editorial Policy P14 CSR Management
G4-19	<ul style="list-style-type: none"> <li>▪ List all the material Aspects identified in the process for defining report content.</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management/a&gt;</a></li> </ul>	P14 CSR Management
G4-20	For each material Aspect, report the Aspect Boundary within the organization, as follows: <ul style="list-style-type: none"> <li>▪ Report whether the Aspect is material within the organization</li> <li>▪ If the Aspect is not material for all entities within the organization (as described in G4-17), select one of the following two approaches and report either: <ul style="list-style-type: none"> <li>- The list of entities or groups of entities included in G4-17 for which the Aspect is not material or</li> <li>- The list of entities or groups of entities included in G4-17 for which the Aspects is material</li> </ul> </li> <li>▪ Report any specific limitation regarding the Aspect Boundary within the organization</li> </ul>	-	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management &gt; Materiality</a></li> <li>▪ <a href="#">Preservation of Global Environment &gt; Five-Year Environmental Action Plan</a></li> <li>▪ <a href="#">CSR Report 2015 Editorial Policy</a></li> </ul>	P1 Editorial Policy P14 CSR Management P27 As a Member of Society > Fiscal 2014 Initiatives Within the Third Five-Year Environmental Action Plan (2011-2015)
G4-21	For each material Aspect, report the Aspect Boundary outside the organization, as follows: <ul style="list-style-type: none"> <li>▪ Report whether the Aspect is</li> </ul>	-	Listed as necessary	Listed as necessary

	<p>material outside of the organization</p> <ul style="list-style-type: none"> <li>▪ If the Aspect is material outside of the organization, identify the entities, groups of entities or elements for which the Aspect is material. In addition, describe the geographical location where the Aspect is material for the entities identified</li> <li>▪ Report any specific limitation regarding the Aspect Boundary outside the organization</li> </ul>			
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	-		
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	-		

### Stakeholder Engagement

G4-24	<ul style="list-style-type: none"> <li>▪ Provide a list of stakeholder groups engaged by the organization.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> </ul>	
G4-25	<ul style="list-style-type: none"> <li>▪ Report the basis for identification and selection of stakeholders with whom to engage.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management &gt; Targeted Stakeholder and Response Policies</a></li> </ul>	
G4-26	<ul style="list-style-type: none"> <li>▪ Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> <li>▪ <a href="#">Supply Chain</a></li> <li>▪ <a href="#">Connection to Society</a></li> </ul>	<p>P17-18 Realizing Our Corporate Philosophy &gt; Aiming for the Realization of High Quality Products and Services &gt; Providing a Wide Variety of Responses to Customer Feedback</p> <p>P21-23 How to Engage in Business Activities &gt; Employee Respect</p> <p>P24-25 How to Engage in Business Activities &gt; Supply Chain &gt; Together with Our Procurement Partners</p> <p>P31-32 As a Member of Society &gt; A Company trusted by Local Communities that Contributes to Society</p>
G4-27	<ul style="list-style-type: none"> <li>▪ Report 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. Report the stakeholder groups that raised each of the key topics and concerns.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Supply Chain &gt; Communication Activities with Procurement Partners</a></li> <li>▪ <a href="#">Third-Party Opinion</a></li> </ul>	<p>P24-25 How to Engage in Business Activities &gt; Supply Chain &gt; Together with Our Procurement Partners</p> <p>P34 Third-Party Opinion; Response from NGK</p>

### Report Profile

G4-28	<ul style="list-style-type: none"> <li>▪ Reporting period (such as fiscal or calendar year) for information provided.</li> </ul>		<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Report 2015 Editorial Policy</a></li> </ul>	P1-2 Editorial Policy
G4-29	<ul style="list-style-type: none"> <li>▪ Date of most recent previous report (if any).</li> </ul>			

G4-30	<ul style="list-style-type: none"> <li>▪ Reporting cycle (such as annual, biennial).</li> </ul>		<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Report 2015 Editorial Policy</a></li> </ul>	
G4-31	<ul style="list-style-type: none"> <li>▪ Provide the contact point for questions regarding the report or its contents.</li> </ul>		<ul style="list-style-type: none"> <li>▪ <a href="#">Contact</a></li> </ul>	
G4-32	<ul style="list-style-type: none"> <li>▪ Report the 'in accordance' option the organization has chosen.</li> <li>▪ Report the GRI Content Index for the chosen option (see tables below).</li> <li>▪ Report the reference to the External Assurance Report, if the report has been externally assured.</li> </ul>			
G4-33	<ul style="list-style-type: none"> <li>▪ Report the organization's policy and current practice with regard to seeking external assurance for the report.</li> <li>▪ If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided.</li> <li>▪ Report the relationship between the organization and the assurance providers.</li> <li>▪ Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.</li> </ul>		<ul style="list-style-type: none"> <li>▪ <a href="#">Third-Party Opinion</a></li> </ul>	P34 Third-Party Opinion

## Governance

G4-34	<ul style="list-style-type: none"> <li>▪ Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> </ul>	P13 Corporate Governance
G4-35	<ul style="list-style-type: none"> <li>▪ Report the process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance &gt; Corporate Governance Promotion Structure</a></li> </ul>	P13 Corporate Governance > Corporate Governance Promotion Structure
G4-36	<ul style="list-style-type: none"> <li>▪ Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">CSR Management</a></li> <li>▪ <a href="#">Preservation of Global Environment &gt; Environmental Management Frameworks and Environmental Management System</a></li> </ul>	P13 Corporate Governance
G4-37	<ul style="list-style-type: none"> <li>▪ Report processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance &gt; Corporate Governance Promotion Structure</a></li> <li>▪ <a href="#">CSR Management</a></li> </ul>	

G4-38	<p>Report the composition of the highest governance body and its committees by:</p> <ul style="list-style-type: none"> <li>▪ Executive or non-executive</li> <li>▪ Independence</li> <li>▪ Tenure on the governance body</li> <li>▪ Number of each individual's other significant positions and commitments, and the nature of the commitments</li> <li>▪ Gender</li> <li>▪ Membership of under-represented social groups</li> <li>▪ Competences relating to economic, environmental and social impacts</li> <li>▪ Stakeholder representation</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance &gt; Corporate Governance Promotion Structure</a></li> <li>▪ <a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Corporate Governance (P10); Corporate Data (P69); Board of Directors, Executive Officers and Audit &amp; Supervisory Board (P70-71)</a></li> </ul>	
G4-39	<ul style="list-style-type: none"> <li>▪ Report whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance &gt; Corporate Governance Promotion Structure</a></li> </ul>	P13 Corporate Governance > Corporate Governance Promotion Structure
G4-40	<p>Report the nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members, including:</p> <ul style="list-style-type: none"> <li>▪ Whether and how diversity is considered</li> <li>▪ Whether and how independence is considered</li> <li>▪ Whether and how expertise and experience relating to economic, environmental and social topics are considered</li> <li>▪ Whether and how stakeholders (including shareholders) are involved</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> </ul>	
G4-41	<p>Report processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders, including, as a minimum:</p> <ul style="list-style-type: none"> <li>▪ Cross-board membership</li> <li>▪ Cross-shareholding with suppliers and other stakeholders</li> <li>▪ Existence of controlling shareholder</li> <li>▪ Related party disclosures</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Corporate Governance (P10-16)</a></li> </ul>	
G4-42	<ul style="list-style-type: none"> <li>▪ Report the highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">CSR Management</a></li> </ul>	P14 CSR Management

G4-43	<ul style="list-style-type: none"> <li>▪ Report the measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> </ul>	
G4-44	<ul style="list-style-type: none"> <li>▪ Report the processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Report whether such evaluation is independent or not, and its frequency. Report whether such evaluation is a self-assessment.</li> <li>▪ Report actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">CSR Management</a></li> <li>▪ <a href="#">Preservation of Global Environment</a></li> </ul>	P13 Corporate Governance > Basic Approach to Corporate Governance P14 CSR Management
G4-45	<ul style="list-style-type: none"> <li>▪ Report the highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities. Include the highest governance body's role in the implementation of due diligence processes.</li> <li>▪ Report whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">Risk Management</a></li> <li>▪ <a href="#">Preservation of Global Environment &gt; Environmental Management Frameworks and Environmental Management System</a></li> </ul>	
G4-46	<ul style="list-style-type: none"> <li>▪ Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">Risk Management &gt; Risk Management System</a></li> </ul>	
G4-47	<ul style="list-style-type: none"> <li>▪ Report the frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> <li>▪ <a href="#">Risk Management</a></li> </ul>	
G4-48	<ul style="list-style-type: none"> <li>▪ Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">CSR Management</a></li> </ul>	
G4-49	<ul style="list-style-type: none"> <li>▪ Report the process for communicating critical concerns to the highest governance body.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">Risk Management</a></li> </ul>	P19-20 How to Engage in Business Activities > Thorough Compliance and Risk Management
G4-50	<ul style="list-style-type: none"> <li>▪ Report the nature and total number of critical concerns that were communicated to the</li> </ul>	6.2 Organizational governance		

	highest governance body and the mechanism(s) used to address and resolve them.			
G4-51	<ul style="list-style-type: none"> <li>▪ Report the remuneration policies for the highest governance body and senior executives for the below types of remuneration: <ul style="list-style-type: none"> <li>- Fixed pay and variable pay: <ul style="list-style-type: none"> <li>&gt; Performance-based pay</li> <li>&gt; Equity-based pay</li> <li>&gt; Bonuses</li> <li>&gt; Deferred or vested shares</li> </ul> </li> <li>- Sign-on bonuses or recruitment incentive payments</li> <li>- Termination payments</li> <li>- Clawbacks</li> <li>- Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees.</li> </ul> </li> <li>▪ Report how performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance &gt; Board of Director and Corporate Auditor Remuneration, etc.</a></li> </ul>	
G4-52	<ul style="list-style-type: none"> <li>▪ Report the process for determining remuneration. Report whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Report any other relationships which the remuneration consultants have with the organization.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li>▪ <a href="#">Corporate Governance</a></li> <li>▪ <a href="#">Corporate Governance Report</a></li> </ul>	
G4-53	<ul style="list-style-type: none"> <li>▪ Report how stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.</li> </ul>	6.2 Organizational governance		
G4-54	<ul style="list-style-type: none"> <li>▪ Report the ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.</li> </ul>	6.2 Organizational governance		
G4-55	<ul style="list-style-type: none"> <li>▪ Report the ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.</li> </ul>	6.2 Organizational governance		

## Ethics and Integrity

G4-56	<ul style="list-style-type: none"> <li>Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li><a href="#">About NGK &gt; Corporate Philosophy, and NGK Group Guidelines for Corporate Behavior</a></li> <li><a href="#">CSR Management</a></li> </ul>	P14 CSR Management
G4-57	<ul style="list-style-type: none"> <li>Report the internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li><a href="#">Thorough Compliance &gt; Compliance Promotion Structure</a></li> </ul>	P19-20 How to Engage in Business Activities > Thorough Compliance and Risk Management > Compliance Promotion Structure
G4-58	<ul style="list-style-type: none"> <li>Report the internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.</li> </ul>	6.2 Organizational governance	<ul style="list-style-type: none"> <li><a href="#">Thorough Compliance &gt; Compliance Promotion Structure</a></li> </ul>	P19-20 How to Engage in Business Activities > Thorough Compliance and Risk Management > Compliance Promotion Structure

### Disclosures on Management Approach

G4-DMA	<ul style="list-style-type: none"> <li>Report why the Aspect is material. Report the impacts that make this Aspect material.</li> <li>Report how the organization manages the material Aspect or its impacts.</li> <li>Report the evaluation of the management approach, including: <ul style="list-style-type: none"> <li>The mechanisms for evaluating the effectiveness of the management approach</li> <li>The results of the evaluation of the management approach</li> <li>Any related adjustments to the management approach</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li><a href="#">CSR Management</a></li> </ul>	
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### Economic Performance

G4-EC1	<ul style="list-style-type: none"> <li>Direct economic value generated and distributed</li> </ul>	6.8.3 Community involvement 6.8.7 Wealth and income creation	<ul style="list-style-type: none"> <li><a href="#">Investor Relations &gt; IR Library &gt; Annual Report &gt; Financial Highlights (P1)</a></li> </ul>	P4 Business Overview (Consolidated)
G4-EC2	<ul style="list-style-type: none"> <li>Financial implications and other risks and opportunities for the organization's activities due to climate change</li> </ul>	6.2 Organizational governance 6.5.5 Climate change mitigation and adaptation		
G4-EC3	<ul style="list-style-type: none"> <li>Coverage of the organization's defined benefit plan obligations</li> </ul>			
G4-EC4	<ul style="list-style-type: none"> <li>Financial assistance received from government</li> </ul>	6.6.4 Responsible political involvement		
G4-EC5	<ul style="list-style-type: none"> <li>Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation</li> </ul>	6.4.4 Conditions of work and social protection 6.8.7 Wealth and income creation		
G4-EC6	<ul style="list-style-type: none"> <li>Proportion of senior management hired from the local community at significant locations of operation</li> </ul>	6.8.5 Employment creation and skills development		
G4-EC7	<ul style="list-style-type: none"> <li>Development and impact of infrastructure investments and services supported</li> </ul>	6.3.9 Economic, social and cultural rights 6.8.9 Social investment		



G4-EC8	▪ 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		
G4-EC9	▪ Proportion of spending on local suppliers at significant locations of operation	6.6.6 Promoting social responsibility in the value chain 6.8.5 Employment creation and skills development		

## Environmental

G4-EN1	▪ Materials used by weight or volume	6.5.4 Sustainable resource use	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact
G4-EN2	▪ Percentage of materials used that are recycled input materials	6.5.4 Sustainable resource use	▪ <a href="#">Preservation of Global Environment &gt; Promotion of Resource Recycling</a>	P29 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact > Promoting the Effective Use of Resources through Recycling
G4-EN3	▪ Energy consumption within the organization	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact
G4-EN4	▪ Energy consumption outside of the organization	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact
G4-EN5	▪ Energy intensity	6.5.4 Sustainable resource use		P26-29 As a Member of Society > Global Environmental Conservation
G4-EN6	▪ Reduction of energy consumption	6.5.4 Sustainable resource use		P26-29 As a Member of Society > Global Environmental Conservation
G4-EN7	▪ Reductions in energy requirements of products and services	6.5.4 Sustainable resource use 6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Products &gt; Power Business &gt; NAS Batteries</a>	P15-16 Realizing Our Corporate Philosophy > Providing Products and Services that Contribute to the Social Environment; NASA® Batteries Powering the Effective Use of Renewable Energy
G4-EN8	▪ Total water withdrawal by source	6.5.4 Sustainable resource use	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P30 As a Member of Society > Global Environmental Conservation > Effective Use of Water Resources
G4-EN9	▪ 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	▪ <a href="#">Preservation of Global Environment &gt; Environmental Impact Reduction Initiatives</a>	P30 As a Member of Society > Global Environmental Conservation > Effective Use of Water Resources
G4-EN10	▪ Percentage and total volume of water recycled and reused	6.5.4 Sustainable resource use	▪ <a href="#">Preservation of Global Environment &gt; Environmental Impact Reduction Initiatives</a>	
G4-EN11	▪ Operational sites owned, leased, managed in, or adjacent to, protected areas	6.5.6 Protection of the environment, biodiversity and		

	and areas of high biodiversity value outside protected areas	restoration of natural habits		
G4-EN12	▪ 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		
G4-EN13	▪ Habitats protected or restored	6.5.6 Protection of the environment, biodiversity and restoration of natural habits	▪ <a href="#">Preservation of Global Environment &gt; Biodiversity Initiatives</a>	
G4-EN14	▪ Total 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		
G4-EN15	▪ Direct greenhouse gas (GHG) emissions (scope 1)	6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact
G4-EN16	▪ Energy indirect greenhouse gas (GHG) emissions (scope 2)	6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact
G4-EN17	▪ Other indirect greenhouse gas (GHG) emissions (scope 3)	6.5.5 Climate change mitigation and adaptation		
G4-EN18	▪ Greenhouse gas (GHG) emissions intensity	6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Preservation of Global Environment &gt; Environmental Impact Reduction Initiatives</a>	P28 As a Member of Society > Global Environmental Conservation > Prevention of Global Warming
G4-EN19	▪ Reduction of greenhouse gas (GHG) emissions	6.5.5 Climate change mitigation and adaptation	▪ <a href="#">Preservation of Global Environment &gt; Environmental Impact Reduction Initiatives</a>	P28 As a Member of Society > Global Environmental Conservation > Prevention of Global Warming
G4-EN20	▪ Emissions of ozone-depleting substances (ODS)	6.5.3 Prevention of pollution 6.5.5 Climate change mitigation and adaptation		
G4-EN21	▪ NOx, SOx, and other significant air emissions	6.5.3 Prevention of pollution		
G4-EN22	▪ Total water discharge by quality and destination	6.5.3 Prevention of pollution	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact > NGK Group Material Balance (Input and Output) * Total amount only
G4-EN23	▪ Total weight of waste by type and disposal method	6.5.3 Prevention of pollution	▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a> * Total weight of waste by disposal method ▪ <a href="#">Preservation of Global Environment &gt; Overall Perspective of Environmental Impact</a>	P26 As a Member of Society > Global Environmental Conservation > Overall Perspective of Environmental Impact > NGK Group Material Balance (Input and Output) * Total weight of waste by disposal method P29 As a Member of Society > Global Environmental Conservation > Overall Perspective of

				Environmental Impact > Promoting the Effective Use of Resources through Recycling
G4-EN24	▪ Total number and volume of significant spills	6.5.3 Prevention of pollution		
G4-EN25	▪ 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		
G4-EN26	▪ Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	6.5.6 Protection of the environment, biodiversity and restoration of natural habits	▪ <a href="#">Preservation of Global Environment &gt; Biodiversity Initiatives</a>	
G4-EN27	▪ Extent of impact mitigation of environmental impacts of products and services	6.5 Environment 6.6.6 Promoting social responsibility in the value chain 6.7.5 Sustainable consumption	▪ <a href="#">Preservation of Global Environment &gt; Creating Products that Contribute to the Environment</a> ▪ <a href="#">Products</a>	P15-18 Realizing Our Corporate Philosophy > Providing Products and Services that Contribute to the Social Environment
G4-EN28	▪ 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		
G4-EN29	▪ 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 Environment 6.6.3 Anti-corruption	▪ <a href="#">Thorough Compliance &gt; Status of Law and Regulations Violations</a>	
G4-EN30	▪ Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	6.5 Environment 6.6.6 Promoting social responsibility in the value chain	▪ <a href="#">Preservation of Global Environment &gt; Five-Year Environmental Action Plan</a>	P27 As a Member of Society > Fiscal 2014 Initiatives Within the Third Five-Year Environmental Action Plan (2011-2015)
G4-EN31	▪ Total environmental protection expenditures and investments by type	6.2 Organizational governance 6.5 Environment	▪ <a href="#">Preservation of Global Environment &gt; Environmental Accounting</a>	
G4-EN32	▪ Percentage of new suppliers that were screened using environmental criteria	6.5 Environment 6.6.6 Promoting social responsibility in the value chain		
G4-EN33	▪ Significant actual and potential negative environmental impacts in the supply chain and actions taken	6.5 Environment 6.6.6 Promoting social responsibility in the value chain		
G4-EN34	▪ Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	6.2 Organizational governance 6.5 Environment		

### Labor Practices and Decent Work

G4-LA1	▪ Total number and rates of new employee hires and employee turnover by age group, gender	6.3.10 Fundamental principles and rights at work	▪ <a href="#">Respect for People and Ensure Comfortable Workplace</a>	
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	and region	6.4.3 Employment and employment relationship		
G4-LA2	▪ 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		
G4-LA3	▪ Return to work and retention rates after parental leave, by gender	6.4.4 Conditions of work and social protection	▪ <a href="#">Respect for Employees &gt; Promoting a Work-Life Balance</a>	
G4-LA4	▪ Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	6.4.4 Conditions of work and social protection		
G4-LA5	▪ 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	▪ <a href="#">Respect for People and Ensure Comfortable Workplace</a>	
G4-LA6	▪ Type of injury and 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	▪ <a href="#">Respect for Employees &gt; Health and Safety</a>	
G4-LA7	▪ Workers with high incidence or high risk of diseases related to their occupation	6.4.6 Health and safety at work		
G4-LA8	▪ Health and safety topics covered in formal agreements with trade unions	6.4.6 Health and safety at work 6.4.5 Social Dialogue	▪ <a href="#">Respect for Employees &gt; Health and Safety</a>	
G4-LA9	▪ Average hours of training per year per employee by gender, and by employee category	6.4.7 Human development and training in the workplace	▪ <a href="#">Respect for Employees &gt; Human Resource Development</a>	
G4-LA10	▪ 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	▪ <a href="#">Respect for Employees &gt; Human Resource Development</a>	
G4-LA11	▪ Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	6.4.7 Human development and training in the workplace	▪ <a href="#">Respect for People and Ensure Comfortable Workplace</a>	
G4-LA12	▪ 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	▪ <a href="#">Respect for Employees &gt; Diversity</a>	
G4-LA13	▪ 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		
G4-LA14	▪ Percentage of new suppliers that were screened using labor practices criteria	6.4.4 Conditions of work and social protection 6.6.6 Promoting social responsibility in the		

		value chain		
G4-LA15	▪ Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	6.4.4 Conditions of work and social protection 6.6.6 Promoting social responsibility in the value chain	▪ <a href="#">Supply Chain &gt; Developing CSR Procurement in Conjunction with Societal Trends</a>	
G4-LA16	▪ Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	6.2 Organizational governance 6.4.4 Conditions of work and social protection		
<b>SOCIAL (Human Rights)</b>				
G4-HR1	▪ Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	6.3 Human rights 6.6 Fair operating practices		
G4-HR2	▪ Total hours of employee training on human rights policies or 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	▪ <a href="#">Thorough Compliance &gt; Promoting Compliance Education</a>	
G4-HR3	▪ 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		
G4-HR4	▪ Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures 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		
G4-HR5	▪ Operations and 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		
G4-HR6	▪ Operations and 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		
G4-HR7	▪ Percentage of security personnel trained in the organization's human rights policies or procedures 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		

G4-HR8	<ul style="list-style-type: none"> <li>Total number of incidents of violations involving rights of indigenous peoples and actions taken</li> </ul>	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		
G4-HR9	<ul style="list-style-type: none"> <li>Total number and percentage of operations that have been subject to human rights reviews or impact assessments</li> </ul>	6.3 Human rights 6.6 Fair operating practices		
G4-HR10	<ul style="list-style-type: none"> <li>Percentage of new suppliers that were screened using human rights criteria</li> </ul>	6.3 Human rights 6.6.6 Promoting social responsibility in the value chain		
G4-HR11	<ul style="list-style-type: none"> <li>Significant actual and potential negative human rights impacts in the supply chain and actions taken</li> </ul>	6.3 Human rights 6.6.6 Promoting social responsibility in the value chain		
G4-HR12	<ul style="list-style-type: none"> <li>Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms</li> </ul>	6.3 Human rights		

## SOCIAL (Society)

G4-SO1	<ul style="list-style-type: none"> <li>Percentage of operations with implemented local community engagement, impact assessments, and development programs</li> </ul>	6.3.3 Due diligence 6.5 Environment 6.6 Fair operating practices 6.8 Community involvement and development	<ul style="list-style-type: none"> <li><a href="#">Connection to Society &gt; Social Contribution Activities in Collaboration with Regional Communities and NPOs</a></li> </ul>	
G4-SO2	<ul style="list-style-type: none"> <li>Operations with significant actual and potential negative impacts on local communities</li> </ul>	6.3.3 Due diligence 6.5 Environment 6.6 Fair operating practices 6.8 Community involvement and development		
G4-SO3	<ul style="list-style-type: none"> <li>Total number and percentage of operations assessed for risks related to corruption and the significant risks identified</li> </ul>	6.2 Organizational governance 6.6 Fair operating practices	<ul style="list-style-type: none"> <li><a href="#">Thorough Compliance &gt; Corruption Prevention Structure</a></li> </ul>	
G4-SO4	<ul style="list-style-type: none"> <li>Communication and training on anti-corruption policies and procedures</li> </ul>	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"> <li><a href="#">Thorough Compliance &gt; Corruption Prevention Structure</a></li> </ul>	P19-20 How to Engage in Business Activities > Thorough Compliance and Risk Management > Practicing Fair and Transparent Business Transactions
G4-SO5	<ul style="list-style-type: none"> <li>Confirmed incidents of corruption and actions taken</li> </ul>	6.2 Organizational governance 6.6 Fair operating practices		
G4-SO6	<ul style="list-style-type: none"> <li>Total value of political contributions by country and recipient/beneficiary</li> </ul>	6.6.4 Responsible political involvement 6.8.9 Social investment		
G4-SO7	<ul style="list-style-type: none"> <li>Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes</li> </ul>	6.6.3 Anti-corruption 6.6.5 Fair competition	<ul style="list-style-type: none"> <li><a href="#">Thorough Compliance &gt; Status of Law and Regulations Violations</a></li> </ul>	

G4-SO8	<ul style="list-style-type: none"> <li>Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations</li> </ul>	<p>6.2 Organizational governance 6.6 Fair operating practices</p>	<ul style="list-style-type: none"> <li><a href="#">Thorough Compliance &gt; Status of Law and Regulations Violations</a></li> </ul>	
G4-SO9	<ul style="list-style-type: none"> <li>Percentage of new suppliers that were screened using criteria for impacts on society</li> </ul>	6.6 Fair operating practices		
G4-S10	<ul style="list-style-type: none"> <li>Significant actual and potential negative impacts on society in the supply chain and actions taken</li> </ul>	6.6 Fair operating practices		
G4-S11	<ul style="list-style-type: none"> <li>Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms</li> </ul>	6.6 Fair operating practices		

### SOCIAL (Product Responsibility)

G4-PR1	<ul style="list-style-type: none"> <li>Percentage of significant product and service categories for which health and safety impacts are assessed for improvement</li> </ul>	<p>6.6.3 Anti-corruption 6.6.6 Promoting social responsibility in the value chain 6.7.4 Protecting consumers' health and safety</p>	<ul style="list-style-type: none"> <li><a href="#">Realization of Higher Quality Products and Services</a></li> <li><a href="#">Preservation of Global Environment &gt; Five-Year Environmental Action Plan</a></li> </ul>	<p>P15-18 Realizing Our Corporate Philosophy &gt; Providing Products and Services that Contribute to the Social Environment; Aiming for the Realization of High Quality Products and Services P27 As a Member of Society &gt; Fiscal 2014 Initiatives Within the Third Five-Year Environmental Action Plan (2011-2015)</p>
G4-PR2	<ul style="list-style-type: none"> <li>Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes</li> </ul>	<p>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</p>		
G4-PR3	<ul style="list-style-type: none"> <li>Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements</li> </ul>	6.7.6 Consumer service, support, and complaint and dispute resolution	<ul style="list-style-type: none"> <li><a href="#">Realization of Higher Quality Products and Services &gt; System for Making Use of Customer Feedback in Management</a></li> </ul>	<p>P17-18 Realizing Our Corporate Philosophy &gt; Aiming for the Realization of High Quality Products and Services &gt; Providing a Wide Variety of Responses to Customer Feedback</p>
G4-PR4	<ul style="list-style-type: none"> <li>Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes</li> </ul>	<p>6.2 Organizational governance 6.7.3 Fair marketing, factual and unbiased information and fair contractual practices</p>		
G4-PR5	<ul style="list-style-type: none"> <li>Results of surveys measuring customer satisfaction</li> </ul>	6.7.6 Consumer service, support, and complaint and dispute resolution		
G4-PR6	<ul style="list-style-type: none"> <li>Sale of banned or disputed products</li> </ul>	6.7 Consumer issues		
G4-PR7	<ul style="list-style-type: none"> <li>Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes</li> </ul>	<p>6.2 Organizational governance 6.7.3 Fair marketing, factual and unbiased information and fair contractual practices</p>		



G4-PR8	<ul style="list-style-type: none"> <li>▪ Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data</li> </ul>	<p>6.3.6 Resolving grievances  6.7.6 Consumer service, support, and complaint and dispute resolution  6.7.7 Customer data protection and privacy</p>		
G4-PR9	<ul style="list-style-type: none"> <li>▪ Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services</li> </ul>	<p>6.2 Organizational governance  6.7.3 Fair marketing, factual and unbiased information and fair contractual practices</p>		

## Third Party Opinion



**Mr. Koichi Ikeda**

Visiting Professor,  
Ritsumeikan University Management School

It has been about ten years since corporations in Japan began adopting corporate social responsibility initiatives accompanied by the term CSR. Having formulated a number of global CSR guidelines, corporate initiatives and subsequent reporting have risen to a high standard. We can call this CSR Phase 1.

The NGK Group CSR Report 2015 vividly conveys the transition from Phase 1 to Phase 2 in terms of the Group's CSR awareness, initiatives and reporting. Phase 2 involves CSR standards rooted in the significant presence of NGK in society and the development of various activities centered on those standards.

At the beginning of CSR Report 2015, the addition of "manufacturing that contributes to society and the global environment" and "utilization of ceramics technologies accumulated for nearly a century since our founding" is symbolic. It deepens the significance and clearly indicates an awareness of NGK's presence in society and in the management activities based on this awareness, enabling us to see the strong intent behind the development of CSR activities as a cornerstone of the report

For example, Special Feature 2 presents a discussion about the "New Manufacturing Structural Innovations" mentioned in the Top Commitment, which introduces the thoughts of corporate officers focused directly on the significance of the company's existence for the world through statements such as "Our ultimate mission is to realize manufacturing technology innovation that provides people throughout the world with a more comfortable lifestyle." Special Feature 3 "The Global Spread of Manufacturing and Personnel Training," introduces a wide range of sentiments from employees in Japan and around the world such as "I want to contribute to global environmental conservation through my work to increase the productivity of automotive exhaust purification ceramic products," and "I take pride in work that is creating the future." Throughout the world, among both managers and employees, the awareness of "contributing to the global environment and society through one's work" increases work motivation and improves corporate performance, while at the same time contributing further to the global environment and society.

Furthermore, from the "reporting" perspective of CSR activities, NGK is attempting to innovate in light of the cornerstone I mentioned above. NGK changed the CSR Report by partially reorganizing the chapters based on the establishment of CSR promotion items within guidelines for corporate behavior aimed at realizing their corporate philosophy with aim of making the report easy to evaluate from the perspective of socially responsible investing (SRI). The use of images and simple, appealing charts in a sincere attempt to express the status of environmental preservation initiatives and a wide range of other activities is a major feature of this robust report.

In Phase 2, the importance of monitoring increases. As results each year act as a stabilizer of management activities, monitoring in Phase 2 CSR also plays the role of a stabilizer. I hope NGK makes increased use of monitoring in the future.

### Response from NGK



**Nobumitsu Saji**  
Director and Senior Vice  
President  
CSR Committee Chair

Thank you very much for sharing your valuable opinions. All NGK Group employees are focused on realizing our corporate philosophy by fostering a constant awareness of "contributing to the global environment and society through work activities," while listening with sincerity to the voices of our stakeholders in an attempt to rise to a higher level.

Going forward, we anticipate further expansion of business overseas. Accordingly, in June 2015, we established the Global Compliance Office to build a Group-wide foundation for our compliance framework that is effective and efficient on a global scale amid increasing demands for stronger compliance with international rules. With a continued awareness of compliance as the lynchpin of CSR activities, and in line with international standards for decision-making, we will act in good faith to live up to the expectations and trust from global society.

# CSR Report 2015 Editorial Policy

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## Reference Guidelines

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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

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As each example differs, data is presented individually for each article in the report.

## Target Period

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April 1, 2014–March 31, 2015

## Report Content Based on CSR Promotion Actions

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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. The CSR Report 2015 is based on these CSR promotion actions and includes chapters partially reorganized from the perspective of socially responsible investment (SRI).

## Full Report (Online) and Digest (Print)

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CSR Report 2015 is available in both a full report (online) and a digest (print) version. The digest (print) version provides an overview of NGK Group CSR activities and is easily understood by the average reader. The full report (online) covers a wider range of activities including content not presented in the digest (print) version.

