



NGK SPARK PLUG Group

CSR Report 2015

CSR Report



INDEX

Our Main Products	P2
Our Business Activities	P3
Message from the President	P5
Our CSR	P7
Process for defining materiality	P10
[Feature 1] Providing new value to people worldwide through new products and new businesses.....	P12
[Feature 2] Introducing CSR activities in Thailand	P16
Management	
• Corporate Governance	P18
• Compliance	P20
• Export Controls	P23
• Security Control / Information Security.....	P24
• Intellectual Properties.....	P26
• Risk Management	P28
With Our Customers	
• Quality Policy and Implementation Structure.....	P30
• Initiatives to Improve Quality	P33
• Communicating Information to Customers.....	P40
With Our Shareholders and Investors	P42
With Our Suppliers	P44
With Our Employees	
• Human Resource Policy	P49
• Respecting Diversity	P52
• Human Resource Development	P56
• Labor-Management Relations/Compliance with Labor Law	P57
• Occupational Safety and Health Basic Policy.....	P59
• Occupational Safety Activities.....	P62
• Health Promotion	P65
With Local Communities and International Society.....	P66
For Environmental Protection	
• Eco Vision 2015	P68
• Environmental Burdens from Business Activities...	P70
• Environmental Management	P71
• Products	P77
• Substances of Environmental Concern	P79
• Global Warming.....	P82
• Waste	P84
• Water Resource	P85
• Environmental Communication	P86
Third-Party Review	P89

Detailed Information about Environment

Fiscal 2014 Targets and Results	P91
ISO 14001 Certified Locations	P92
Data on Air, Water Quality, Noise and Vibration	P93
Environmental Accounting	P98
PRTR data for Each Business Site	P99
Volumes of Waste Generated at Each Business Site	P100
Local Clean-up Activities	P101

Editorial Policy

The CSR Report 2015 is edited with the intention of informing all of our various stakeholders about the CSR activities of the NGK SPARK PLUG Group. This online version contains more detailed information than the digest version.

【Period covered】

From April 1, 2014 to March 31, 2015

Some other very recent activities and cases are also included.

【Organizations Covered】

● Social aspects: NGK SPARK PLUG CO., LTD.

However, this Report may also cover the activities of subsidiaries and affiliates inside and outside Japan. In such cases, specific company names are indicated.

● Environmental aspects: NGK SPARK PLUG Group

- NGK SPARK PLUG CO., LTD.
- Nine consolidated subsidiaries and one affiliate in Japan

【Publishing Director】

Shinichi Odo, President & Chief Executive Officer

【Editor in Chief】

Masaya Futamura, General Manager of the CSR Promotion Office

【Published】

September 2015 (Publication of the next report is planned for August 2016.)

Our Main Products

Exhibiting visible effects in unseen places

Even though many of our products are small, they actually make a big contribution to your life, society and the environment.



- 1 Igniter Plug**
 Contributing to safe and reliable flight in harsh environments

- 2 Crystal Device/SAW Filter Package**
 Contributing to miniaturization and weight reduction of telecommunications devices with achievement of super compact and thin ceramic packages

- 3 Iridium Plug**
 Contributing to low fuel consumption through outstanding ignitability and durability

- 4 Ceramic Inserts**
 Contributing to high quality manufacturing through wear resistant cutting tools

- 5 Zirconia Exhaust Gas Oxygen Sensor**
 Contributing to cleaner exhaust gas as a key component in air-fuel ratio control

- 6 Bone Filling Materials (Bio Ceramics)**
 Contributing to recovery from bone fractures and bone loss on the frontline of advanced medical treatment


Our Business Activities

- Manufacturing & Sales Organization
- ▲ Sales Organization
- Other



Japan

Consolidated subsidiaries 9
 Unconsolidated subsidiaries 1
 Equity method affiliates 2
 Non-equity method affiliates 1



Europe

Consolidated subsidiaries 4

North America

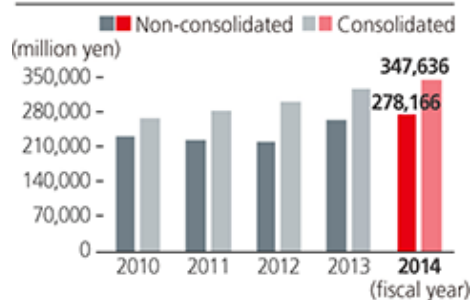
Consolidated subsidiaries 4



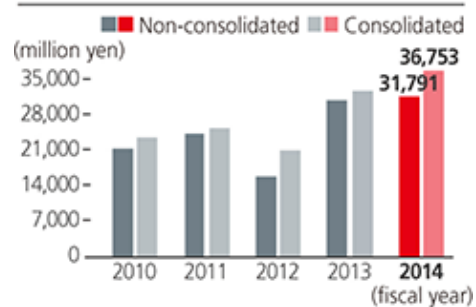
Asia, South America, Other

Consolidated subsidiaries 17
 Unconsolidated subsidiaries 1
 Equity method affiliates 1
 Non-equity method affiliates 3

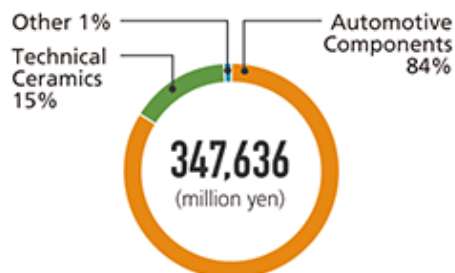
Net Sales



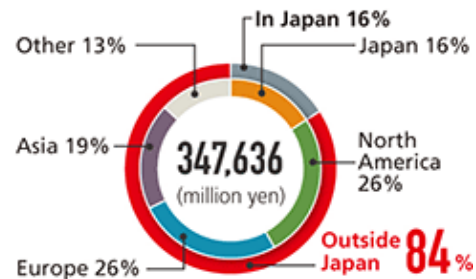
Net Income

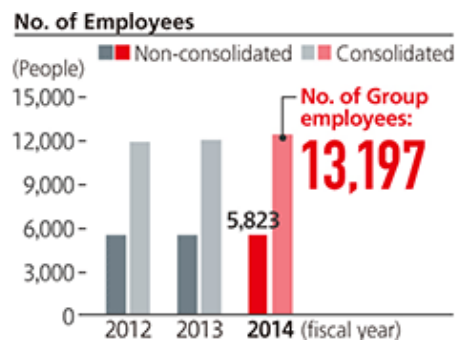


Net Sales by Segment



Percentage of Sales Outside Japan





► [Click here to view detailed information.](#)

Message from the President



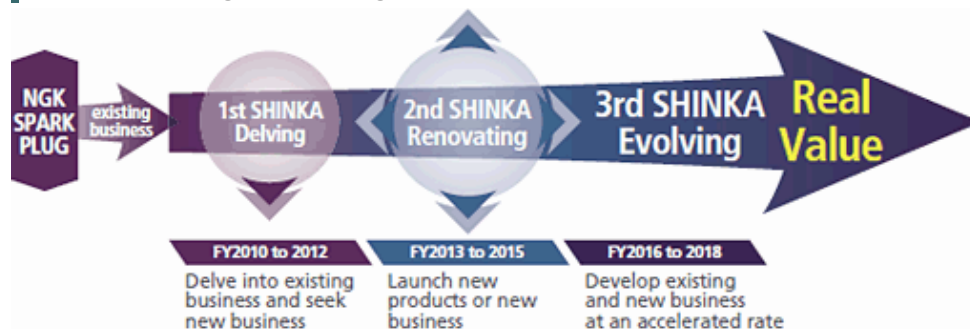
NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG)

In fiscal 2010, the NGK SPARK PLUG Group formulated a long-term management plan called NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG), which sets out the vision for NGK SPARK PLUG in 2020. Under this plan, our goal is to become a distinguished manufacturing company, a highly profitable company, a progressive company, and a personnel "assets" company. Having achieved these goals, we will deliver real value to stakeholders around the world.

The Evolution of NGK SPARK PLUG has been broken down into three separate three-year stages called the 1st SHINKA (Delving), 2nd SHINKA (Renovating), and 3rd SHINKA (Evolving). In the Delving stage that lasted until fiscal 2012 we focused efforts on changing the foundation of the company, or our organizational structure and culture, as well as adopted the corporate officer system and formulated new human resources systems.

For the three-year period of the 2nd SHINKA (Renovating) launched in fiscal 2013 we have adopted a basic policy to fully leverage our management resources to tackle bold challenges in new business domains and fields, with the aim of evolving to the final stage of the long-term management plan. Using the foundation constructed during the three years of the 1st SHINKA (Delving), we now accelerate decision making and execution as well as work on launching new products.

Overview of Long-Term Management Plan NITTOKU SHINKARON



NGK SPARK PLUG in 10 years

- A distinguished manufacturing company
- A highly profitable company
- A progressive company
- A personnel "assets" company

Towards "Evolution" Under NITTOKU SHINKARON

Fiscal 2015 is the final year of NITTOKU SHINKARON representing the 2nd SHINKA (Renovating). Currently, we are making steady progress on our most important issues that include further enhancing our spark plugs and sensors, exiting or restructuring unprofitable businesses, and quickly commercializing new products and business ventures.

Specifically, in February 2015 we completed the acquisition of Nihon Ceratec Co., Ltd. This acquisition will enable us to utilize Nihon Ceratec's advanced technical strengths and cost competitiveness from small-lot, high mix production in the field of components for semiconductor manufacturing equipment. We will be able to expand our lineup to include all new products never offered before. We also determined that synergies can be realized between both companies by combining these with our overseas sales network and technological development capabilities from materials. From now on, we will work to deliver new value in the growing components business for semiconductor manufacturing equipment.

In May 2015, we determined the acquisition of Wells Vehicle Electronics from UCI Holdings of the United States. We examined various possibilities for further strengthening our Automotive Components Business, and among these we focused on ways to utilize our worldwide sales network, which is one of our greatest strengths. This brought us to Wells, which is a leading company in the United States automotive repair market. We determined that an acquisition would enable us to expand our product lineup further. We will continue to embrace new challenges going forward as we work to strengthen our Automotive Components Business further.

As for new business ventures, we have committed management resources predominantly to the environment/energy, healthcare, and next-generation vehicle segments. We finalized a partnership with United States venture company Spirometrix in order to gain a foothold in the healthcare sector as part of our medium- to long-term strategy. Under this partnership, we will aim to create new products together utilizing our existing sensor technologies. At the same time, we will continue to launch new products and new businesses, but to beat out competition globally, we will improve company-wide productivity, including not only the production floor but also the back office, and proactively engage in the development of personnel "assets" who will power these activities.

Promotion of CSR Management

To fulfill NITTOKU SHINKARON and achieve sustainable growth, we are strengthening our governance system across the entire group and steadily addressing important risks, including crisis management and raising awareness about compliance in accordance with our CSR policy. However, in fiscal 2014 business transactions from the past fiscal year were found to be in violation of competition and anti-trust laws in the United States and South Korea. We take this matter very seriously and have implemented a preventive program across the entire group to prevent future reoccurrences.

Additionally, we are actively developing environmentally-friendly products and reducing our CO2 emissions to help preserve the natural environment. At the same time, we are carrying out citizenship activities closely in tune with our philosophy and policy. The NGK SPARK PLUG Group is committed to fulfilling its corporate social responsibilities and accountability as a corporation. Going forward, we will provide succinct and easy-to-understand information disclosures to all of our stakeholders about the processes we use to select important issues and the progress of such processes, among other information.

We are pleased to announce the release of CSR Report 2015, which details our activities during fiscal 2014.

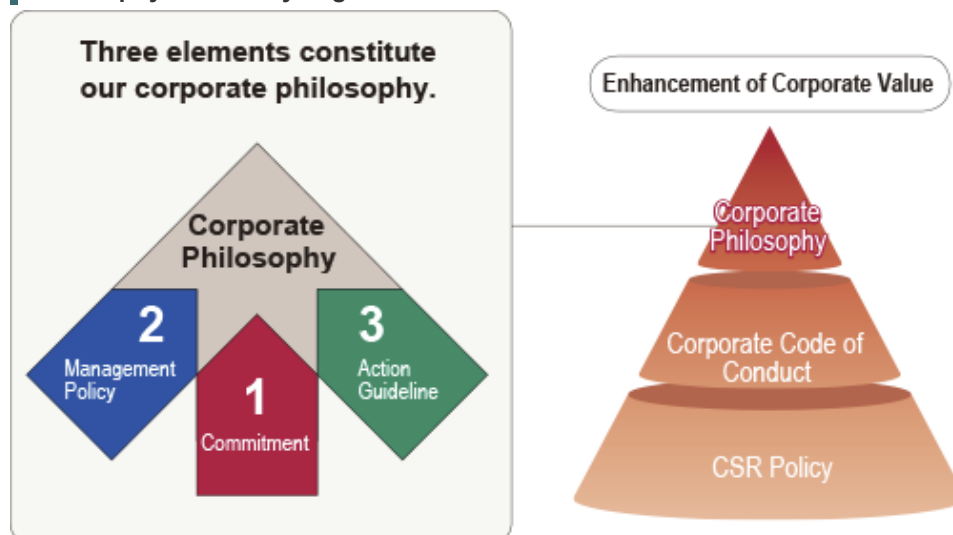
We very much appreciate your honest and unreserved comments and opinions.

Our CSR

CSR Concept

We view CSR not just as a responsibility but as an opportunity to be accountable through review of the NGK SPARK PLUG Group's economic, environmental and social activities from a global perspective, to enhance corporate value, and to contribute to the sustainable development of society in accordance with our Corporate Philosophy.

Philosophy and Policy Organization



Our CSR activities are wide-ranging, and include the following:

[Examples]

- Offering excellent products to customers
- Disclosing corporate information to shareholders and the broader investor community, in an optimal and easy-to-understand manner
- Collaborating with suppliers for mutual development
- Establishing a safe and employee-friendly working environment
- Participating in and supporting activities in the local community

To provide our Group's action guidelines for fulfilling CSR, in April 2011 our CSR Policy was established, which comprises 10 policies, such as the Compliance Policy and others. In line with the CSR Policy, we intend to review and promote CSR based on a multifaceted approach, into the future.

- ▶ Corporate Philosophy
- ▶ Corporate Code of Conduct
- ▶ CSR Policy [21KB] [PDF](#)

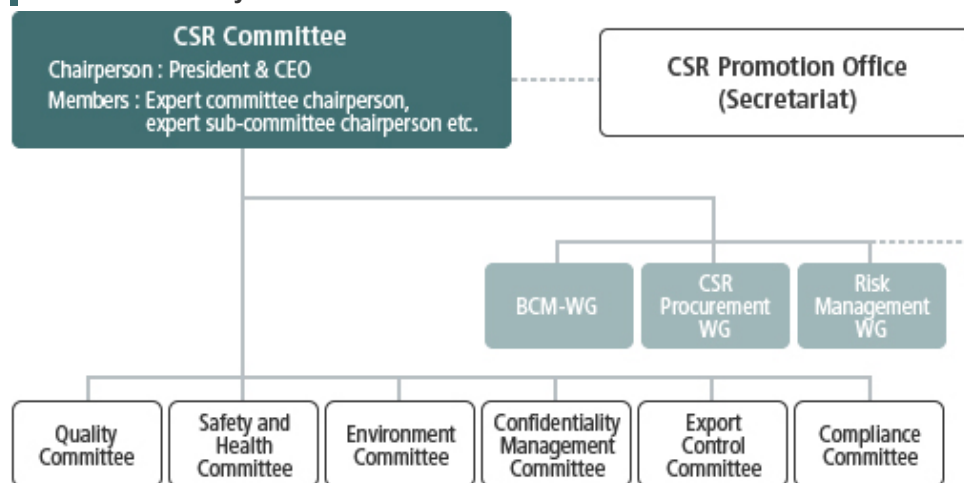
CSR Promotion System

The CSR Committee determines the priority themes for each fiscal year, to implement CSR Policy. The Committee also oversees and evaluates CSR-related activities implemented by the respective committees, working groups and divisions, and makes appropriate proposals regarding them, so as to achieve full optimization of CSR activities, thereby strengthening our business foundations.

The CSR Committee sets up respective working group as deemed appropriate, each of which holds discussions on specific themes to develop countermeasures. We have established a company-wide CSR promotion system by securing close coordination between the CSR Committee, the CSR Promotion Sub-Committee and expert

committees.

CSR Promotion System



CSR Promotion Activities Targets

We carry out CSR promotion activities according to the medium-term targets and fiscal year targets.

Our CSR Committee checked the progress of targets for fiscal 2014 and formulated new targets for fiscal 2015 as part of achieving our medium-term targets.

■ We identified the priority themes for the NGK SPARK PLUG Group and established 30 items.

The NGK SPARK PLUG Group is connected to and supported by customers, shareholders, investors and various other stakeholders. For that reason, for the group to be sustainable in the future, we must aim to grow our business during meeting the expectations and needs of our stakeholders.

When we set our targets for fiscal 2015, first each expert committee and division confirmed the expectations and demands of all our stakeholders. Then they compared them to our corporate philosophy, Corporate Code of Conduct and CSR Policy and drafted targets. Finally, the CSR Committee approved them.

► [Click here to see the selection process for priority themes](#)



► CSR targets and results [123KB] [PDF](#)

Progress in our CSR

Nov. 1996	Adopted "Corporate Philosophy"
Feb. 1998	Adopted "Corporate Code of Conduct"
Apr. 1998	Established Ethical Committee
Feb. 2003	Adopted "Corporate Ethics Helpline System Operation Guidelines"
Nov. 2004	Revised "Corporate Code of Conduct" Published "Code of Conduct Guidebook"
Apr. 2005	Published "Guidelines on the Handling of Personal Information"
Aug. 2005	Established Export Control Committee Adopted "Export Management Regulations"
Feb. 2007	Adopted "Confidentiality Management Regulations"
Nov. 2007	Published "Confidentiality Management Guidelines"
Sep. 2008	Established Internal Audit Department
Apr. 2009	Prepared "Corporate Protection Manual"
Apr. 2010	Inaugurated CSR Promotion Department
Oct. 2010	Established CSR Committee
Apr. 2011	Adopted CSR Policy
Nov. 2011	Established Compliance Committee
Jan. 2012	Published "Compliance Guidebook"
Mar. 2012	Adopted "Compliance Regulations"
Oct. 2012	Adopted "Emergency Response Plan Regulations" and "Business Continuity Plan (BCP) Regulations"
May 2013	Published "CSR Procurement Guidelines"
July 2014	Launched "CSR Awareness-raising Activities"

Process for defining materiality

In 2015, we defined the materiality of our priority CSR themes. We also established 10 fields of activities and 30 targets based on the sixth Medium-Term Management Plan.

Going forward, we will repeatedly conduct dialog with major stakeholders, including customers, suppliers, shareholders and investors, employees and the local communities, while pursuing stakeholder engagement and continuing to review materiality and targets in line with the times.

- ▶ Definition process for the materiality of priority themes (fiscal 2010 – 2014)
- ▶ List of 10 fields of activities and 30 targets under the sixth Medium-Term Management Plan (fiscal 2013 – 2015)

Renovating NGK SPARK PLUG: Special Feature 1



Providing new value to people worldwide through new products and new businesses

The NGK SPARK PLUG Group will provide new value in diverse fields in order to realize our corporate philosophy.

Developing an intake oxygen sensor to prevent global warming and atmospheric pollution

NGK SPARK PLUG decided to develop and commercialize the intake oxygen sensor ahead of others in the industry, applying the technology which has been extensively used in many automotive sensors. The intake oxygen sensor will contribute greatly to further reducing NOx generated in diesel engines and CO₂ produced by gasoline engines by precisely controlling the EGR system that recirculates exhaust gas. In near future, we will make preparations for mass production and aim to expand deployment.

Promoting the fuel cell business to contribute to solving environmental problems

The commercialization of fuel cells as a next technology of power generation for business and industry is approaching. In 2014, NGK SPARK PLUG and Mitsubishi Hitachi Power Systems, Ltd. formed a business tie-up targeting mass production of cylindrical cell stacks, the power generating elements used in solid oxide fuel cells (SOFC). Combining our technologies, the two companies are working to construct a production line in order to contribute to the realization of a low carbon society.



Promoting improvements to products to lighten the load on the medical frontline

A bone filling material in paste-form is used for sites where a bone transplant is necessary such as bone loss or a fracture. Cerapaste is a paste-form bone filling material developed by NGK Spark Plug.

For the conventional product, mixing is performed by rotating a mixing rod, but lightening the workload involved in mixing was a challenge. In order to solve this, NGK SPARK PLUG has developed Cerapaste (improved) that can be mixed by just moving the mixing rod back and forth, which will contribute to lightening the load on the medical frontline.



Developing even safer and more reliable oxygen concentrator for medical use KM5 5touch (Sales name: O₂ Fresh 5G)



An oxygen concentrator for medical use is a medical device used by patients with respiratory disorders such as chronic obstructive pulmonary disease (COPD) for domiciliary oxygen therapy. The device increases oxygen concentration by causing the absorption of nitrogen into ceramic zeolites from air compressed by a compressor. The spread of oxygen concentrators for medical use has made it possible for many patients with respiratory disorders to be treated at home without being

hospitalized.

On the other hand, with the spread of oxygen concentrators, accidents involving fires caused by the ignition of the apparatus by cigarettes and other fire sources have also been increasing year by year, developing into a problem for society. NGK SPARK PLUG has applied the sensor technology cultivated in relation to automobiles to develop a new product fitted with a function to attract the attention of the people around when it detects smoke with the aim of reducing the accidents involving fires that have become a serious problem.

Pursuing the DNA Project: an engine to promote new businesses

The DNA (Dynamic New Approach) Project is an engine to promote new businesses launched in 2009. It is a new company-wide initiative to create new businesses separately from the conventional approach in research and development departments.

The 4th series of DNA initiated in spring 2014 brought together about 30 passionate volunteers with diverse skills and ideas, ranging from young employees through to veterans. They met up about once a week to pursue in-house and external investigations by each of the teams that were formed on a voluntary basis and pieced together proposals for new businesses.

Following a final review in spring 2015, a number of proposals are now progressing through investigation into commercialization. It is expected to produce rapid progress as a project to drive the future of the NGK Spark Plug Group, not only in the creation of new businesses, which was the original objective, but also in the development of human resources and organizational culture.



Voice of Our Project Member

What I got out of the activities was huge

Sensor Engineering Dept. II, Sensor Division
Daisuke Tahira

I am very grateful to get the opportunity to actually shape the ideas that I want to try.

I think that experiencing the flow of a business proposal that cannot be experienced in the normal course of business, such as the difficulty of making a business materialize, interviews with potential customers following detailed study, and making a proposal to management, will be a great asset for me in tackling my work in the future.



Voice of Our Project Member's Boss

Sensor Engineering Dept. II, Sensor Division
Shingo Ito



Despite not having discovered any seeds for new businesses, I think that significant results were achieved in human resource development.

I think that being involved in work related to marketing and planning, which are not part of his work in the normal course of business, was beneficial for career advancement.

I also think that he was able to accumulate a lot of the experience needed as a leader in a condensed period of time by actively taking leadership.

Although regular duties took a blow due to participation in the program, I believe it was a good investment if I think about how much the individual involved grew.

Voice of Our Project Member

New Business Strategy Dept., New Business
Advancement Group
Tsuyoshi Inoue



"I want to create something new. Hard work is fun if that is what it is for."

I took part in the 3rd series of DNA based on this idea. It was my first experience of planning new businesses, so I struggled continually. However, the project I proposed with my encouraging teammates was adopted, and it was decided to carry out a business feasibility study.

I myself was transferred to my current department and explore possibilities for commercialization every day. There are difficulties, but I find it rewarding to think through how to overcome obstacles.

Voice of Our Project Member

Development and Planning Dept., New Business
Advancement Group
Yoshinari Goto



Under the DNA Project, employees who are motivated to create new businesses work independently to plan new businesses, irrespective of age, gender, type of occupation, and department.

This program works because of the understanding of the members' bosses, including officers, and co-workers, and we get a sense for the broadmindedness of NGK SPARK PLUG.

In the secretariat, we will also grow while providing full support for the project members to pave the way to even better proposals.

Renovating NGK SPARK PLUG: Special Feature 2



Introducing CSR activities in Thailand

2015 marked 41 years since the NGK SPARK PLUG Group expanded into Thailand in 1974 as Siam NGK Spark Plug Co., Ltd. Today, three group companies are based in Thailand and are promoting the construction of a global production response to the increasing expansion in demand, mainly in emerging countries.

In Special Feature 2, we will report on activities in Thailand which is expected to continue playing an active role in the future as a core site in the Asia region.



Siam NGK Spark Plug Co., Ltd.



SparkTec (THAILAND) CO., LTD.



NGK Spark Plugs (Thailand) Co., Ltd.



Risk management and compliance

In 2011, there was large-scale flooding in Thailand, and local Japanese-affiliated companies also suffered significant damage. Fortunately, the NGK SPARK PLUG Group did not suffer any damage, but we have formulated a business continuity plan (BCP) in preparation for mitigating damage and early recovery of operations in the event that risks do materialize.

Moreover, in order to maintain fair and transparent relationships with customers and suppliers, we regularly conduct education on compliance, including Thailand's Competition Act, to raise awareness among employees.



Compliance study session



Aiming for an environmentally- and people-friendly plant that is also risk-resistant

We established two concepts taking the environment and safety into consideration when constructing the plant at SparkTec (THAILAND) CO., LTD., which commenced operations in April 2015. The first concept is “an environmentally- and people-friendly plant.” We have created an environment that is easy for employees to work in by establishing places for recreation, such as sports areas. The plant is also environmentally-friendly with consideration given to energy and cost savings, including measures to counter the heat with high ceilings and natural ventilation, and the use of sunlight for lighting. The second concept is “a plant that is disaster-resistant.” We have avoided risks due to heavy rain and flooding by taking measures against rainwater discharge that take into account maximum local rainfall and measures to prevent the inflow of rainwater from outside.



Plant using natural lighting



Sports area inside the plant grounds



Actively participating in social contribution and environmental preservation activities

We have continuously taken part in donating blood to the local Red Cross and making contributions to foundations that provide support to AIDS patients. NGK Spark Plugs (Thailand) CO., LTD. and Siam NGK Spark Plug Co., Ltd., are also involved in anti-drugs activities run by the local Labour Protection and Welfare Offices. All the employees at both companies have received certification that they are drug-free.

In the area of the environment, we actively participate in coastal clean ups and beachside tree planting activities with involvement from employees.



Participants in tree planting

Voice of a Participant in Tree-planting

In the area where our plant is located, there is a mangrove forest along the coastline. Therefore, we run tree-planting activities to protect the mangroves. Through these activities, we can contribute to protecting the environment and also get to know people in other departments.

Corporate Governance

Basic Philosophy

We believe that it is our foundational and important managerial task to establish and maintain a fair and efficient management system, while securing soundness and transparency in management, in order to enhance corporate value by fulfilling our corporate social responsibilities.

Management Organization

The directors appoint corporate officers selected by resolution of the Board of Directors to manage corporate affairs. The directors also define the division of duties between the corporate officers and employees related to the management of corporate affairs in Corporate Officer Authority Rules and Regulations on the Division of Duties as well as clarifying targets and working to enhance management efficiency by formulating medium-term management plans and managing the budget framework.

Meetings of the Board of Directors are held regularly once a month as well as whenever necessary. In addition, there is also lively debate at the regular monthly meetings of the Corporate Management Committee and the Corporate Officers' Meeting, in which the directors take part, and each of the expert committees in efforts to identify the situation quickly and respond to changes in the business environment.

Management Oversight Functions

NGK SPARK PLUG CO., LTD. is a company with a Board of Corporate Auditors, which consists of two standing statutory auditors and two external auditors. These auditors attend the meetings of the Board of Directors and, if necessary, various committee meetings, to grasp the status of important issues. They also supervise directors' execution of duties, through audits of major offices and subsidiaries.

Nominating Outside Directors and Strengthening Corporate Governance

Our company aims to become a true global company and is endeavoring to further strengthen corporate governance. As one aspect of that, one outside director was appointed in June 2014, following the appointment of one outside director in June 2013, bringing the number of outside directors to two.

The outside directors attend regular and ad hoc meetings of the Board of Directors, providing supervision for the execution of duties as well as advice where it is needed based on their great experience at global companies and deep insight.

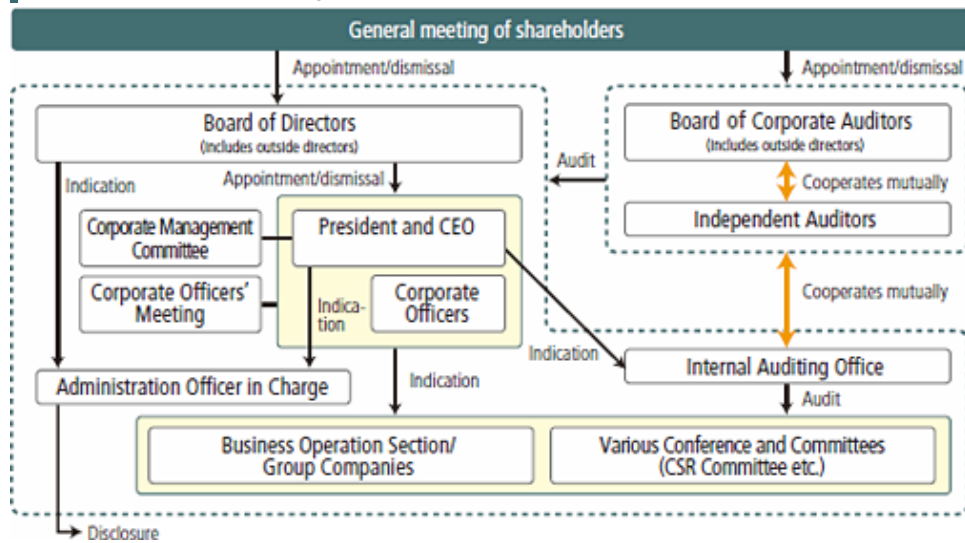
▶ [Click here for information about the outside directors \(Japanese version only\)](#) 

Internal Audits

The Internal Auditing Office performs audits of NGK SPARK PLUG CO., LTD. and its subsidiaries and affiliates, reports the audit results to management, and makes proposals to correct problems and improve business operations as necessary. A department that receives a proposal for improvement formulates and implements an improvement plan and the Internal Auditing Office investigates and confirms the implementation status.

The department assesses the effectiveness of internal control over financial reporting in accordance with the requirements for the internal control report system pursuant to the Financial Instruments and Exchange Act so as to secure the reliability of the Group's financial reporting, thereby maintaining and improving internal control.

Corporate Governance System



We acknowledge that our company is a member of society. In the light of this, we enhance corporate ethics, comply with laws and ordinances, international rules, and company regulations, striving to become a company trusted by the international community.

- We comply with all relevant laws and ordinances, the Corporate Code of Conduct, and company regulations.
- We regularly educate and raise the awareness of all our employees to impart a high-level of ethics and correct knowledge, with which they can act voluntarily to prevent compliance problems.
- Should a problem occur, we will promptly deal with the problem and fulfill our accountability, and will strive to identify the causes and prevent recurrence.

We work to increase awareness among employees regarding compliance to act in a socially sensible manner, helping them to bear in mind that our enterprise is a member of society.

A Compliance Committee made up by personnel in charge of overseeing compliance with laws and ordinances in various departments and the heads of each division, headed by the Representative Director, holds meetings every three months, carrying out inspections and correcting serious problems.

The diagram illustrates the Compliance Management System (CMS) structure, showing the flow of information and activities between various committees and departments.

Legend:

- Committee activities (Yellow arrow)
- Consultation and reporting (Green arrow)

Structure:

- Board of Directors** (Top level)
- CSR Committee** (Reports to Board of Directors)
- Compliance Committee** (Central body, reports to CSR Committee)
 - Helpline channel (Inside and outside the company)** (Reports to Compliance Committee)
 - Chairperson of Compliance Committee** (Reports to Compliance Committee)
 - Division in charge of laws and regulations (Acquisition of legal information and its dissemination)** (Reports to Compliance Committee)
 - Internal Auditing Office** (Reports to Compliance Committee)
- Anti-Harassment Committee (Human Resources Dept. and labor union)** (Reports to Compliance Committee)
- Plant liaison staff and division in charge of laws and regulations** (Reports to Compliance Committee)
- Implementation of compliance** (Bottom level, includes NGK SPARK PLUG CO., LTD. and Affiliates)

Activities:

- Consultations and reports** (Green arrows pointing up from Implementation to Compliance Committee)
- Reporting** (Green arrows pointing up from Anti-Harassment Committee and Plant liaison staff to Compliance Committee)
- Notification** (Yellow arrows pointing from Helpline channel and Division in charge of laws and regulations to Chairperson of Compliance Committee)
- Recommendation** (Yellow arrow pointing from Compliance Committee to Board of Directors)
- Result disclosure** (Yellow arrow pointing down from Compliance Committee to Implementation)
- Awareness survey** (Yellow arrow pointing down from Compliance Committee to Implementation)
- Educational tools** (Yellow arrow pointing down from Compliance Committee to Implementation)
- Audit** (Yellow arrow pointing down from Internal Auditing Office to Implementation)
- Compliance check** (Yellow arrow pointing down from Internal Auditing Office to Implementation)

Important Notification

Plea Agreement with the United States Department of Justice Regarding Our Automotive Parts and Announcement from Korea Fair Trade Commission

In August 2014, NGK SPARK PLUG CO., LTD. consented to a plea agreement with the United States Department of Justice that included the payment of a fine and other details as there had been some violations of U.S. antitrust laws with respect to some transactions related to automobile spark plugs and oxygen sensors for automobiles.

In addition, in March 2015, Korea Fair Trade Commission announced that it would impose a fine for violations of the country's Monopoly Regulation and Fair Trade Act. There is a risk that NGK SPARK PLUG Group may be a party to litigation and penalties and other legal procedures from regulatory authorities in relation to possible violations of anti-monopoly laws in other countries and regions in the future. NGK SPARK PLUG CO., LTD. apologizes profoundly for the serious concern caused to stakeholders, including shareholders, in relation to this series of incidents.

The NGK SPARK PLUG Group has positioned legal compliance as an important subject for management and has established a compliance system. We are taking this situation very seriously and are striving to prevent any recurrence and further strengthen our compliance system as we work to restore confidence. Specifically, we have established a special team for competition law compliance, and we are committed to making compliance with competition laws well known to all through awareness raising activities that include running special seminar training again for officers and employees throughout the group as well as progressively carrying out system audits that include group companies overseas.

[Click here to see details](#)

[Plea Agreement with the United States Department of Justice Regarding Automotive Parts](#) **PDF**

[Announcement from Korea Fair Trade Commission](#) **PDF**

Education and Awareness-raising

To reinforce employee awareness of compliance, we have been continuing to conduct workplace training based on conventional seminars aimed at different levels of the corporate structure, the Compliance Guidebook, and Compliance Newsletter.

In fiscal 2014, we also ran seminars with external lecturers aimed at officers and divisional compliance promotion staff to encourage education and awareness-raising in all divisions and Group companies.



Seminar for divisional compliance promotion staff

Surveying Each Division on Compliance

With regard to "employee awareness of the Corporate Ethics Helpline," which was among the issues revealed by the compliance survey conducted in fiscal 2013, we distributed portable cards, put up posters in each department, and carried out other measures in efforts to significantly raise awareness.

Moreover, in order to "increase employee utilization" of the helpline, we employed a special private contractor from outside the company for the first time and endeavoured to increase convenience by making consultation and reporting possible outside of working hours and on holidays.

We also conducted the compliance survey in fiscal 2014 and reflected the results in education and awareness-raising plans in order to contribute to improving the workplace environment.

Corporate Ethics Helpline

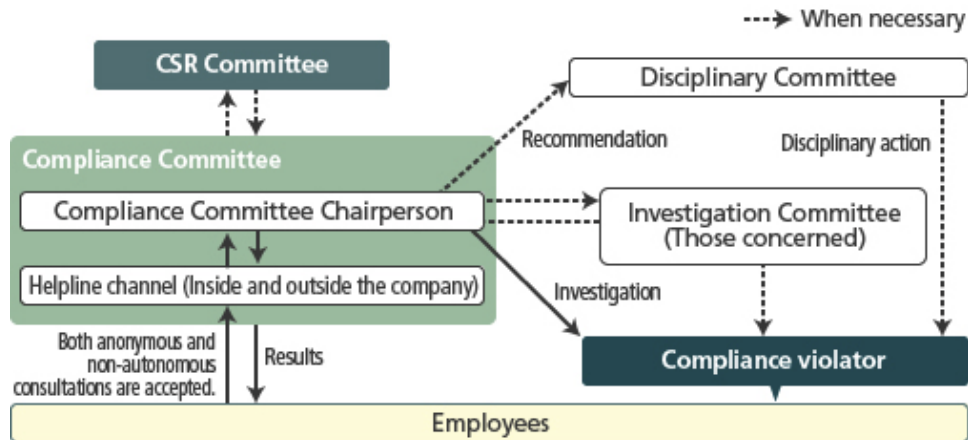
The Corporate Ethics Helpline is a channel for employee consultations regarding compliance.

There are helpline channels inside and outside the company accepting anonymous inquiries.

Regarding consultations and reports received, facts are investigated with discretion so the reporting employee is not identified and does not feel uncomfortable, and as problems are confirmed they are dealt with promptly.

There were 20 consultations or reports in fiscal 2013, and they mostly involved labor, the work environment, and information management. There have also been cases where reports led to reform of company rules.

Flow after report is received via the Helpline



Voice of Our Helpline Operator

We want employees to feel at ease using the helpline.

The Corporate Ethics Helpline is a reporting/consultation channel directly linked to the officer in charge of compliance. Under this system, the identity of the employee making contact, even when a real name is used, is shared with a minimum necessary number of people during fact finding. The privacy of that employee who faithfully made a report is protected and care is taken that he or she not be disadvantaged by making a report.

We hope employees will make use of the helpline when they feel uncomfortable raising an issue within the workplace.



General Administration
Dept.

Yasuo Mori

Export Controls

Basic Philosophy

To maintain international peace and security, Japan has implemented security export controls in full coordination with the international community, but in recent years more suitable controls have been needed as the international situation has worsened.

To suitably carry out security export controls based on the Foreign Exchange and Foreign Trade Control Law, we have drawn up own Export Management Regulations and has configured our in-house export control structure. This will allow us to flexibly deal with regulation revisions.

Furthermore, under the guidance of the authorities we have put in place an aircraft cargo security management system to prevent terrorism and are working to suitably control cargo such as through the introduction of metal detectors at each department involved in distribution.

We will continue to carry out business in compliance with all laws and regulations to fulfill our responsibilities as demanded by the international community and the government.

Holding Regular Briefings on Different Themes

The Export Control Committee secretariat considers it necessary to continue educational activities in order to teach the entire company about security export controls and cargo security management. To that end, we are planning regular, timely briefings on various themes in fiscal 2014.

Themes

1. Cargo security management (Known Shipper/Regulated Agent system)
2. Foreign exchange laws and security export controls
3. Customs law, Authorized Exporters' Program
4. Classification in practice (new)

We will also include a risk management perspective to the subjects above.

Voice of Our Export Controls Organizer

Contributing to compliance through easy-to-understand explanations

Because export control is supported by the cooperation of various divisions including technical, sales and distribution divisions, we hold briefings for people in related divisions on laws and regulations that must be paid attention to when exporting.

We will continue to hold briefings under the motto "making difficult laws and regulations easy to understand" while confirming the status of inspections and working to ensure sound compliance with laws and regulations.



Corporate Legal Dept.
Naoko Tokimoto



Security Control / Information Security

Information Security Policy

We regard our own information assets as one of our management resources. Through the protection and effective use of our information assets, we pursue sound maintenance and development of our business.

【Action Guidelines】

- We establish information security regulations that clearly define the system and responsibilities to protect all the information assets we keep for our customers, our information assets as information resources, and personal data.
- We comply with laws, ordinances, and regulations regarding information security.
- We educate all executives and employees who handle information assets about the importance of information security, and about specific items to be observed.
- We continuously implement measures necessary to improve the management system and to protect our information assets, keeping pace with a rapidly-changing information society.
- If a problem with the information security system is predicted to occur due to unforeseen circumstances, we will promptly take action to prevent an accident associated with the problem. Should the accident occur, we will strive to minimize the damage and take preventive measures against reoccurrence.

With the development of information and communication technology, it has become more important and more complex for companies to manage confidential information.

We established our Confidentiality Management Regulations as part of our endeavors to properly manage the confidential information of our company, customers and suppliers. We are also working to bring greater efficiency to our work processes by introducing a wireless Local Area Network in our shared spaces while complying with the relevant laws and regulations, not to mention maintaining thoroughgoing security management.

Our privacy policy is available on our website.

▶ Privacy Policy

Relocating Internet Systems to a Disaster-Resistant Data Center

In preparation for the eventuality of a disaster, we have relocated the Internet systems used for exchanging data with customers, suppliers and subsidiaries and for internal and external communication tools to external datacenters which has outstanding resistance to earthquakes, liquefaction, flooding, and fire as well as guaranteed power source. In conjunction with this, we have enhanced business continuity by duplicating communications with the data center.

In the future, we will continue working to further enhance business continuity by progressively relocating system servers to an external data centers.

Carrying Out Mutual Checks Related to Confidentiality Management

To ensure that the confidentiality management rules we established do not become rules in name only, the Confidentiality Management Committee asks each division to perform periodic inspections of the status of confidentiality management by company-wide. In fiscal 2014, in addition to the self-checks carried out in the past, we added checks by a third party (another division), adopting a method of carrying out mutual interdivisional inspections to strengthen the checking function.

To be thorough in confidentiality management and avoid corporate risk

As a member of the Confidentiality Management Committee secretariat, I am in charge of promoting confidentiality management throughout the company. When confidential matters are leaked, there is not only a degradation of competitiveness in the market and actual damages due to demands for compensation of damages from business partners, but there are the incalculable effects of a damaged image due to a loss of public faith in the company. To prevent these effects, we are working to make the company-wide standard confidentiality management rules more suitable and expand them from a global viewpoint.



Corporate Legal Dept.

**Tadashige
Maegawa**

Intellectual Properties

Basic Philosophy

To protect its existing and newly developed products, NGK SPARK PLUG CO., LTD. takes steps to actively acquire intellectual property rights and make effective use of them. We investigate the intellectual property rights of third parties in all production processes, from early stages of development to mass production, to avoid the risk of infringing the intellectual property rights of third parties or violating contracts, laws or regulations. We also verify the appropriateness of the intellectual property-related provisions in various contracts. In addition, we are educating employees on the importance of intellectual property. In the future, we will strengthen the management of intellectual property across the Group, as the basis for our continued evolution as a “distinguished manufacturing company.”

Promoting Measures to Stamp Out Counterfeit Goods

Counterfeit NGK SPARK PLUG goods are spreading, mainly in emerging nations. To ensure the safety of users and protect our corporate brand, we are working in cooperation with police and customs officials in various countries to expose counterfeiters and destroy counterfeit goods. We will also proactively participate in educational activities to stamp out counterfeit goods in cooperation with government bodies and industry organizations.



Exchange of views with customs officials

Winning International Recognition Related to the Protection of Intellectual Property

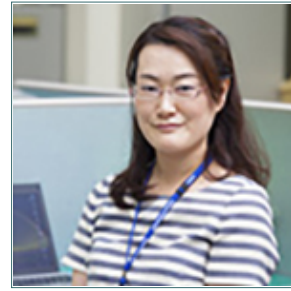
NGK SPARK PLUG CO., LTD. was named one of the Top 100 Global Innovators 2014 chosen by Thomson Reuters. This award is given to companies recognized as being innovative and working to protect intellectual property or as companies that brought about an invention that affects the world. We received the award because, among the four selection criteria relating to innovations determined by Thomson Reuters (success, global, influence and volume), we received high evaluations in global and volume. It was the second year in a row after 2013 that we received the award.



Trophy

Aiming to acquire the corporate asset known as Intellectual property rights

When proactively acquiring intellectual property rights, in addition to protecting our own products, we also work with developers on a daily basis to achieve the effect of holding other companies in check. As part of our intellectual property training, we are also providing lectures for employees inexperienced in matters of intellectual property on the importance of patents and basic knowledge for applying for them.



Intellectual Property Dept.
Yuko Iwasaki

Risk Management



Performance — Workplace CSR Activities

Distributing Disaster Prevention Goods to NGK SPARK PLUG Group Employees to Prepare for the Eventuality of a Disaster

In April 2014, we distributed survival kits, which are essential disaster prevention items, to NGK SPARK PLUG Group employees in Japan. The contents of the kits include a helmet, emergency food and water, work gloves, a mask and other items.

These will be essential items for employees in a large-scale disaster. As much as possible, employees keep the kits close at hand to take with them immediately in the event of an emergency evacuation.



Survival kits at the workplace



Disaster prevention items

Risk Management Policy

We are prepared to deal with various possible risks, such as natural disasters, accidents and spread of new infectious diseases. If such a risk should arise, we will act to minimize the impact on our stakeholders. We also work to restore and continue smooth business operations, thereby maintaining trust from our stakeholders.

【Action Guidelines】

- We strive to prevent factors that could affect business continuity.
- We conduct our activities with top priority on the protection of human life.
- We minimize impact on related parties.
- We strive for rapid restoration of business operations and stable supply of products and services.
- We take measures to prevent the recurrence of risks.

Basic Philosophy

In operating business, we face many risks including natural disasters, accidents, terrorism, and the spread of new infectious diseases. If an unforeseen incident occurs, we will act giving top priority to the protection of human life. We have also made contingency plans so that we can smoothly continue our business operation even under such circumstances.

Holding Disaster Imagination Game (DIG) Training for Officers

At the time of the company-wide disaster prevention training in November 2014, all officers of NGK SPARK PLUG, Presidents of the Group's domestic subsidiaries, and the managers of each plant met at Head Office separately from the training carried out by employees and conducted DIG simulation training for a large-scale disaster. This prepares for an emergency by assuming the circumstances that could occur from one minute to the next, aiming for the training participants to gain an insight into what is critical with regards to coping with and advance preparations for a large-scale disaster through action and self-evaluation.



A scene from DIG training

Earthquake Early Warning at NGK SPARK PLUG's Four Plants

We have installed earthquake early warning equipment in all NGK SPARK PLUG's plants in Japan. This makes it possible to respond to the seismic motion that arrives a few seconds later. We intend to install the equipment at domestic group companies in the future.

Holding Regular General Administration Dept. Disaster Prevention Council

Since April 2014, people involved in disaster prevention in general administration departments at group companies in Japan have come together to establish a regular disaster prevention council to take up issues at group company sites related to disaster prevention as issues for the group and discuss them with the aim of upgrading disaster prevention at the site level. We also endeavored to coordinate the company-wide disaster prevention training which takes place in November with the holding of the disaster prevention council.

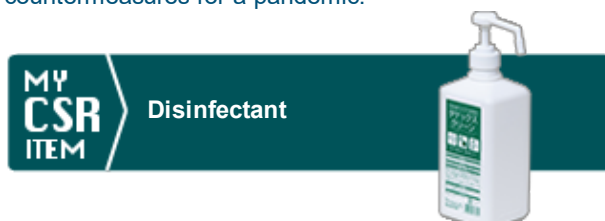
Response to New Infectious Diseases

To protect employees' health from the seasonal influenza every year, we strive to prevent the spread of infection. Particularly regarding group infection at workplaces, which may affect our daily operations, we are ready to cooperate with the relevant divisions to implement immediate and intensive measures. During the flu season, we issue weekly reports so that all employees can share the information and take effective countermeasures. In addition, we are attentive to information on candidate viruses for novel influenza.

Voice of Our Disaster Control Organizer

Continuous Response for Infection Disease

We are concerned about the new flu Virus, such as the swine flu (H1N1) in 2009, and the bird flu (H7N9) in 2013 being prevalent on a global scale. Therefore, we aim to be prepared to take information and countermeasures for a pandemic.



Health Care Promotion
Human Resources Dept.

**Kazuhiro
Sakakibara**

Quality Policy and Implementation Structure

Quality Policy and Implementation Structure

Corporate Quality Policy

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

【Action Guidelines】

- We strive to take a customer-oriented approach to accurately understand a wide variety of customers' needs and provide quality products and services, aiming to ensure greater customer satisfaction.
- We encourage all our employees to be actively involved in quality improvement activities, based on companywide cooperation, and to achieve higher goals by making the best use of their own individual abilities and creativity to address problems and challenging issues.
- Accurately responding to ever changing social/market environments and the diverse needs of customers, we strive to continue improving our systems, processes, products and services, aiming to further grow as an energetic and sound corporation.

Basic Philosophy on Quality

NGK SPARK PLUG regards all the value, expectations, and evaluations provided to customers through products and services, and all the people, goods, processes, and arrangements involved in producing them as "quality."

We are always conscious of making the best value for customers, and, aware that we are the ones who support quality, we continue to grow, ambitiously applying creativity and imagination to all operations.

We produce value for customers based on the company's Corporate Philosophy, and in accordance with our Corporate Quality Rules and Corporate Quality Policy. We will continue to contribute to society through development of the human resources to implement the rules and policy effectively and efficiently and through safe and trusted manufacturing based on our total quality management (TQM) that can respond flexibly and promptly to the evolving internal and external business environment.

Quality Management System

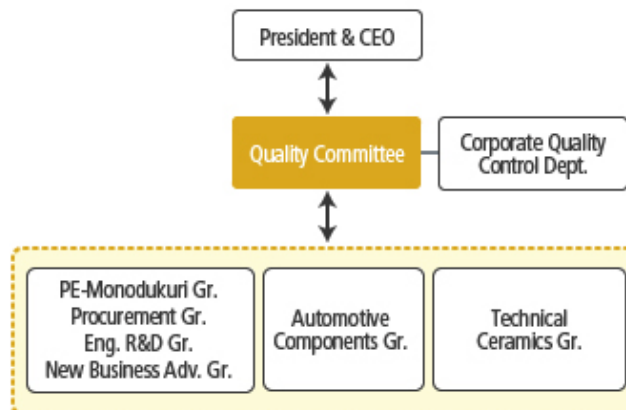
NGK SPARK PLUG strives under the main principles of our quality management activities (quality assurance, daily management, policy management, Small Group Improvement Activities, and quality management education), which are based on our Corporate Quality Rules.

We have obtained certification of the international standards ISO 9001 and the sector standards such as ISO/TS16949 in order to meet demands from customers and each industry. We effectively apply these standards to achieve our quality management. The Quality Committee has been established as a specialized committee in the company's CSR system to provide a companywide framework for promoting quality assurance. Chaired by the Executive Vice President and composed of the general managers and managers of groups and divisions, the Quality Committee directs and supervises total quality management(TQM) and quality risk.

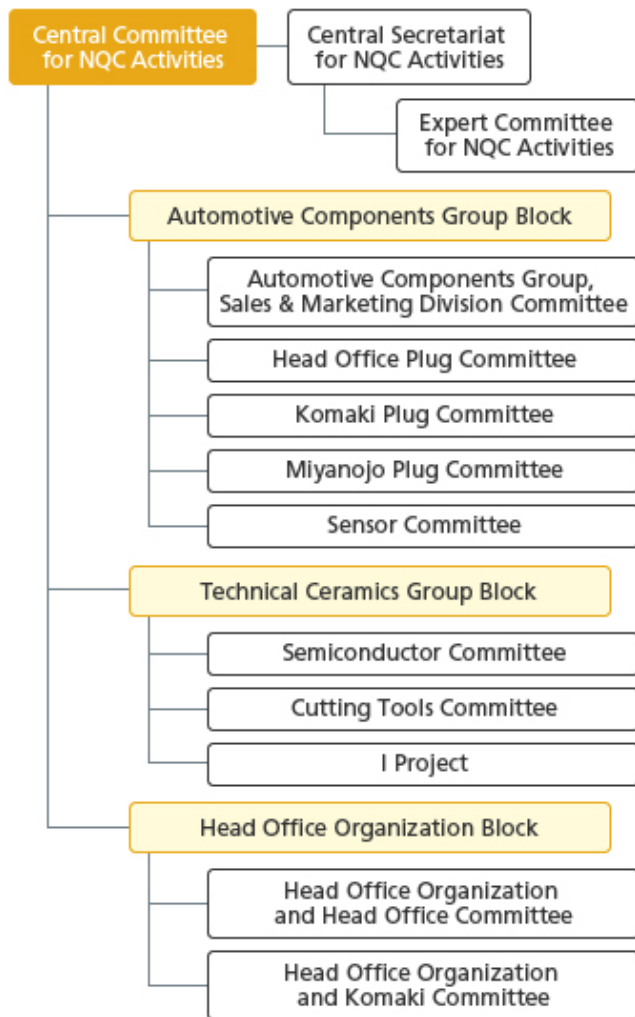
In addition, as Small Group Improvement Activities at NGK SPARK PLUG, QC Circle activities are actively conducted, and the NQC Activity Central Committee has been formed to play a role in promoting total quality management(TQM) activities. Chaired by the officer in charge of the Corporate Quality Control Dept., the NQC Central Committee continually works with QC Circle trainers and expert advisors to strengthen the development of human resources and organizations that support quality.

We also contribute to awareness of local quality activities with outstanding QC Circles participating in many external QC conferences to present their results.

Quality Management Promotion System



NQC Activities promotion system (Organization of NQC Activities)



(Reference) * Each committee has an executive office
 * Each committee includes affiliates and subsidiaries in Japan

Voice of Our Quality Control Manager

We updated the Corporate Quality Rules with the aim of achieving companywide targets

Based on the “Nittoku Quality Mind,” which is NGK SPARK PLUG’s DNA with regard to “enhancing corporate value” and “creating customer value,” we updated the Corporate Quality Rules in order to align our approach toward the achievement of companywide targets.

In order to solve issues and problems so NGK SPARK PLUG remains a company that can provide value for customers and society, it is necessary to upgrade not only results-based product quality, but also the quality of all the operations that produces it and to strengthen our human resources and culture.

We will bring together the wisdom of our entire organization to deliver the expected quality through the practice of total quality management (TQM) and global activities in the NGK SPARK PLUG Group.



General Manager,
Corporate Quality Control
Dept.

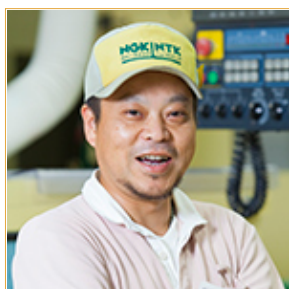
Tatsuro Goto

Initiatives to Improve Quality

SDCA activity

Standardizing our work and operations plays an important role in supporting total quality management (TQM). As a manufacturer, we are promoting the manufacturing worksite SDCA (Standardize, Do, Check & Act) activity to stably and reliably conduct daily management at our manufacturing worksites. We are working to improve the quality of our manufacturing by encouraging awareness of any abnormalities in the worksites and on a daily basis maintaining a worksite without muri, muda and mura (unreasonableness, waste and inconsistency) through good communication.

Voice of Our Activity Promoter



1st section, Manufacturing Dept., iProject

Yutaka Umekida

We are working to reduce variations in work and to eliminate defects using video training. In 1st section of the Manufacturing Dept. in iProject, we manufacture a range of ceramic components for general industrial applications using alumina as the principal raw material. In more than 3,000 part numbers there is a significant number of 3H parts (those with over a year since production), we use video to standardize operations and visualize parts that depend on the intuitive skill of individuals in daily management, we are working on involving all personnel in SDCA activities in addition to reducing variations due to workers through video training.

In addition, preparing video standards and procedures in pairs, and providing commentary through images and text using videos is helping to increase the speed of training workers to eliminate muri, muda and mura (unreasonableness, waste and inconsistency).

Quality Improvement

NGK SPARK PLUG is working to share and practice the concepts of total quality management (TQM) in order to become a group company that creates value for all stakeholders and has a system that can respond flexibly and swiftly to change.

Based on our CSR Policy, we have updated NGK SPARK PLUG's Corporate Quality Rules and identified the following five areas as the mainstays of total quality management (TQM).

1) Quality assurance

In order to provide products and services that meet the needs of our customers and society, NGK SPARK PLUG will establish all operations and guarantee their safety and reliability and promote development activities aimed at creating new value.

2) Daily management

NGK SPARK PLUG will consider methods and indicators to measure the quality of all our operations and promptly investigate the causes when results that differ from normal are obtained as well as taking countermeasures to maintain and improve quality.

3) Policy management

NGK SPARK PLUG will further improve and innovate activities to maintain and enhance quality. We will establish strategies and objectives for creating new value for customers and responding to the evolving internal and external business environment and explicitly identify issues and problems that need to be tackled as we work towards achieving our strategies and objectives.

4) Small group improvement activities

NGK SPARK PLUG will use small group teams to solve the various issues and problems identified through daily management and policy management, thereby developing human resources.

5) Quality control education

NGK SPARK PLUG will create the understanding and awareness of the mainstays of total quality management (TQM) that are the prerequisites for maintaining and enhancing quality and activating improvements and innovation and then establish and implement a grade-specific education system.

Voice of Our Activity Promoter

Strengthening Built-in Quality through Statistical Methods

In addition to the demands of customers, know how based on past experience is a critical element in the development and design of each product. Therefore, we often see differences in development and design speed for veteran engineers and young engineers. In particular, major disparities arise in the design of size range (size tolerance) in order to meet the performance and quality required for products.

To make up for the disparities described above, in addition to the statistical methods we have applied in the past, we have been working with group members since fiscal 2014 to utilize response surface design and analysis using StatWorks based on cooperation with the Corporate Quality Control Dept. As the performance, quality and size range become clear from creating a DRBFM and FTA while identifying the factors needed for response surface design in the results of planning-testing-analyzing (and extending when necessary), it helps to equalize evaluation accuracy and speed. In addition, it has the advantage that the veteran team members can give instruction in their experience and knowhow by proceeding with the young team members.

I hope that utilizing these methods will pave the way to product development that achieves even greater enhancements in performance and quality in the future.



Spark Plug Engineering
Dept., Spark Plug Div
Magoki Shimadate

Quality Training Raising the Quality of Our Manufacturing

We are working to develop our personnel “assets” as “making things is making people.” We have established training programs that include quality control, management engineering techniques, QC Circle Activities, quality management systems, and measurement control and offer practical guidance and support for the application of knowledge learned. We raise awareness of quality and provide motivation through quality expos and lectures, including training for new recruits.

We also offer quality training and practical support for problem solving for suppliers so that they provide us with consistently high quality parts and materials based on continuous quality improvement.



Training for new recruits

Voice of Our Training Leader



Corporate Quality Control
Dept.

Yuji Kimura

Participatory Training Held for Recruits to Think for Themselves

It is vital that the new employees who will carry NGK SPARK PLUG into the future understand the importance of quality.

In training for new recruits, we run participatory training that facilitates learning through experience in order to achieve a high degree of understanding. For example, there is training in which the trainees learn efficient and high quality work procedures while making paper crafts and case study training in which the trainees experience the problem solving sequence using seven quality control tools. The aim of this training is for the trainees to increase their level of understanding by thinking for themselves to carry out the activities.

Comments from new recruits have included the view that having a go at doing things themselves made it really easy to understand, and we have realized the effectiveness of participatory training.

In the future, we want to be creative in continuing to offer easy-to-understand training and contribute to raising employee awareness of quality and the quality of products and work.

MY
CSR
ITEM

A text that explains basic
knowledge on quality



Providing Overseas Subsidiaries with Support for Measurement

Measurement is vital in manufacturing. Appropriate measurement control is needed to obtain reliable measurement results. NGK SPARK PLUG conducts audits of measurement control systems and certification of calibration skills at overseas plants to raise the quality of mechanisms and skills. We have also established an environment to facilitate the development of video calibration standards, self-learning on site, and training activities.

In addition, confirmation of quality at overseas sites is required for the local procurement of tools. Measurement technology is also required for carrying out incoming inspections properly and procuring parts that meet the required quality. We will continue to contribute to improvements in the accuracy and consistency of incoming inspections through the roll out of training in measurement techniques and skills.

Voice of a Quality Control Manager, Overseas Plant

Correct Measurement Control Leads to Production of Quality Goods

We underwent an audit of our measurement control system and found that there were still deficiencies in our mechanisms. Based on the results of the audit, we carried out improvements to our systems and managed to improve the quality of our mechanisms.

Through the certification of calibration skills, I recognized again that measurement control is directly linked to product quality.

I hope that applying what I learned from the audit will lead to the strengthening of our manufacturing abilities.



QA Assistant Manager
P.T. NGK Busi Indonesia

Sunarto

NQC Activities (Small Group Improvement Activities)

We are implementing Small Group Improvement Activity (QC Circle Activities) aimed at advancing human resource training and workplace capacity by continually solving problems and issues we face in daily work. We call this activity "NQC Activities." During Quality Control Month every November, the company recognizes successes resulting from NQC Activities at a companywide presentation, and the best examples are given the President's Award. The two circles that received the President's Award in fiscal 2014 were particularly commended because all the members of the circles participated, they achieved their targets in activities based on the 5G principles, and through their activities they increased members' knowledge of improvement and improved their communication skills.

In addition, at the companywide improvement practice presentation and award ceremony every June, commendations are given to small groups implementing exceptional NQC Activities in daily operations throughout the year to encourage continuous NQC Activities by honoring their efforts. At the companywide presentation, we also showcase and commend the organization of the activities by the managers of groups that received the President's Award. Doing this provides an opportunity for other managers to study methods of organizing activities.

In addition, we actively send outstanding improvement practices from the companywide presentation to presentation meetings outside the company, which are forums for self- and mutual development. Not only do participants realize the value of the activity and gain a sense of achievement from presenting a theme they have worked on to a large audience, but it also provides an opportunity to develop as an individual and a group through Q&A and comments and gain the motivation for additional activities. Recently, the results of our activities have been recognized by presentation meetings outside the company, and several groups receive the top prize every year.

The NQC Activities is vital for our organization not only for the NGK SPARK PLUG Group in Japan, but also at sites outside Japan in order to respond to changes in the external business environment and further increases in production capacity as well as developing strong workplace capabilities. Through the activity, we can share concepts and mechanisms globally as the NGK SPARK PLUG Group. Therefore, we assess the level of activities by visiting the main overseas worksites where the activities are conducted and holding interviews on difficulties and problems in promoting activities as well as attending presentations on case studies of improvement.

Promoting NQC Activities (Small Group Improvement Activities) in Each Department

To activate NQC Activities at each worksite, we formed new expert committees at four plants in fiscal 2013. These committees are made up of a Certified QC Circle Trainer and expert advisors (members selected from each division and department). In particular, they aim to give expert advisors knowledge and practical skills related to NQC Activities through two years of activities (as internal workshop instructors, promoters and commentators and in external training courses), and after their terms those

advisors return to their respective worksites, increasing the number of well-known QC activity advisors available on a daily basis. In this way, we are working to activate NQC Activities.

In fiscal 2015, new first-year expert advisors will take part with the goal of acquiring knowledge. The second-year expert advisors will be at the center of the activity with the goal of learning practical skills. The third-year expert advisors are serving as instructors in the use of proper techniques and meeting facilitators as well as providing review and comments on presentation meetings as examples for activities in their own worksites.

Our aim is to invigorate and raise the quality of NQC Activities through continual improvements to this system for promoting them, and we will continue to develop human resources who can produce results in each arena of the company's business activities.



Advice from an expert advisor

Serving as Company Chairing the QC Circle Tokai Regional Chapter (Outside Organization)

The Union of Japanese Scientists and Engineers has established nine chapters around Japan for QC Circle Activities. NGK SPARK PLUG served as the company chairing the Tokai Regional Chapter composed of the Aichi, Gifu, Mie, and Shizuoka area for one year in fiscal 2014. Under the slogan for the fiscal year, which was "Activating the workplace with rewarding and exciting activities," we and the 63 member companies put together policies and events and worked on popularizing and expanding them.

In addition, since joining as a member company in the Aichi area in 1973, NGK SPARK PLUG has been contributing to popularizing and expanding as well as developing QC Circle Activities in the area by running area events (presentation meetings and research meetings) with other member companies. We have also incorporated the valuable experiences learned through these activities into the company, also helping to invigorate NQC Activities.

Voice of the Executive Office, QC Circle, Tokai Regional Chapter



Corporate Quality Control Dept.

Takahiro Abe

Applying the Valuable Experience to NQC Activities

In my duties for the Executive Office of the Tokai Regional Chapter, I worked with people from executive offices in other areas to organize regional chapter events and endeavored to popularize and expand QC Circle Activities. Through these duties, I was able to acquire know how on organizing regional chapter presentation meetings and ways to promote and run QC Circle Activities. I will apply these experiences to continue contributing to invigorating NQC Activities.



Knowledge and know how learned from outside organization activities

Development of Unified Measurement Management System to NGK SPARK PLUG Group Companies in Japan

We have begun the development of a unified measurement management system to NGK SPARK PLUG Group companies in Japan.

In order to protect the NGK SPARK PLUG brand, we regularly share information with affiliated companies and promote unified standards for the management of measuring instruments that form the base of our manufacturing.

We will continue to contribute to high precision manufacturing by enhancing the measurement management system, as well as the awareness and skills of the staff involved in it.

Voice of a Measurement Management Manager at a NGK SPARK PLUG Group Company

Spreading the Importance of Measurement Management within the Company

At our company, we have been making preparations that include establishing standards and database management since last year through the Measurement Management Liaison Committee. Our internal calibrators have also been certified, and we have begun operating under the unified system this fiscal year.

In addition, as the quality control departments for glow plugs and cutting tools have been merged at our company, we will play a key role in working to spread the importance of measurement management within the company in the future.



Quality Control
Department
Kamioka Ceramic Co.,
Ltd.

Shinji Aogaki

Communicating Information to Customers



Performance — Performance Workplace CSR Activities

To Raise Global Customer Satisfaction Levels in After Sales Market, Including Repairs

We also provide high quality services based on the appropriate technology and knowledge in the automobile aftermarket and promote diverse activities around the globe to increase customer satisfaction.

So that they acquire the correct technology and knowledge, we focus on technical knowledge education for sales staff in Japan and overseas and training for technical sales staff overseas. In addition, we promote market research activities that include

maintaining and expanding existing needs, exploring and fulfilling new needs, and collecting and providing technical information and new car and model information. Furthermore, we work on initiatives to further increase customer satisfaction by offering tailored assistance such as holding lectures on technology for customers in Japan and overseas, responses to customer inquiries and complaints to our website, and technical support for customers' racing activities as sales promotion activities.



Responding to a defect on a customer's site (Thailand)



Providing support at a repair shop (India)



Providing support at an automobile components store (India)

Voice of a Member of our Service Staff



Aftermarket Technical Service Dept.
Sales & Marketing Div.
Daisuke Goto

We listen to the opinions of customers and are always conscious of improvement

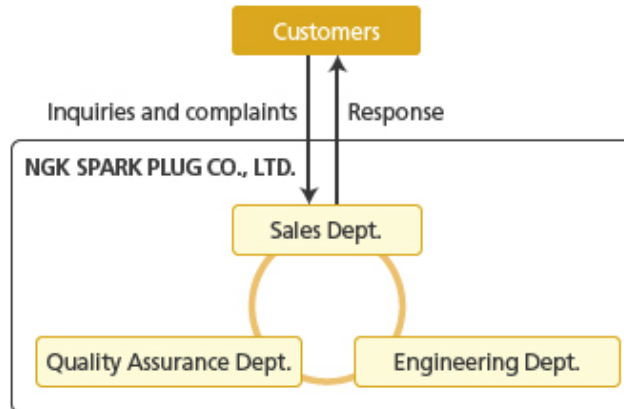
In the Aftermarket Technical Service Department, we aim to raise customers' levels of satisfaction and understanding related to products and services.

As an example, we provide support for holding technical lectures. We constantly strive for improvement by conducting a survey on levels of satisfaction with the content of the lecture for each lecture and reflecting the results of the surveys into the content of lectures to enable greater customer satisfaction levels.

Responding to Inquiries and Complaints

Inquiries and complaints on our products received from customers are first accepted at our sales division. Then the quality assurance division works together with the technical division to quickly respond and take necessary actions to the inquiries and complaints.

Response to Inquiries or Complaints



Communication through Exhibitions and Events

We use opportunities provided by various exhibitions and auto races to directly communicate with customers at the venue by displaying our products and technologies. In doing so, we are able to keep abreast of the ever-changing needs of our customers.

▶ See information on exhibitions and events [here](#)

Responding Product Defects

We make it a rule that any product defect we have detected and found to possibly cause harm to customers be immediately announced to the public through our websites, newspapers, trade journals and other media as appropriate and that we simultaneously implement countermeasures against such defects to protect all users.

With Our Shareholders and Investors



Performance — Workplace CSR Activities

Eliminating the Information Gap and Distributing a Variety of Information in Japan and Overseas in a Timely Manner

In order to disclose information fairly in Japan and overseas, we prepare materials related to business results and press releases in Japanese and English and post them at the same time on the company website. We also actively make contact with all shareholders and investors in both Japan and overseas in our day-to-day investor relations activities, striving for speedy and accurate disclosure of information.

We will continue to establish systems that enable us to meet the needs of all shareholders and investors in Japan and overseas with the focus on fair information disclosure.



Materials for business results briefing and press releases in English

Information Disclosure Policy

Aiming to become an enterprise capable of receiving great support and popularity from people around the world, we strive to conduct transparent business operations and fair information disclosure.

【Action Guidelines】

- We disclose any corporate information required to be disclosed by the Financial Instruments and Exchange Act and other laws and regulations, in an accurate and timely manner.
- We actively disclose our corporate information, which is not subject to laws and regulations however deemed to be important for stakeholders, through our daily actions, such as issuance of a press release and updates of our website.
- We focus on enhancing communication with our shareholders, investors and other stakeholders to further promote mutual understanding with them.

Basic Philosophy

At NGK SPARK PLUG CO., LTD. we are well aware that promoting transparent and fair information disclosure is indispensable to having all our stakeholders better understand and evaluate our business operations. To achieve this goal, in addition to meeting the legal standards of information disclosure, we also strive to strengthen information disclosure through various media and promptly post information on our website, with the aim of ensuring stakeholders' greater trust in our business operations.

▶ Investor Relations

Shareholders' Meeting

We hold our Ordinary General Shareholders' Meeting every June, at which we explain the business results of fiscal year ended March 31st, 2015 to our shareholders, who then vote on matters to be resolved. We also answer questions given by them directly.



The 114th general meeting of shareholders

Engaging in Activities to Make Shareholders and Investors Familiar with NGK SPARK PLUG

We hold company briefing session so that shareholders and investors have accurate and deep knowledge about NGK SPARK PLUG. In fiscal 2014, we visited areas all over Japan to get the unedited opinions of our shareholders and investors.

We will continue working to focus on and encourage communication with all of our shareholders and investors.

Voice of Our Investor Relations Representative

Accurately Communicating NGK SPARK PLUG

As media exposure for NGK SPARK PLUG increases, the number of opportunities to hear voices that support the company and conversely harsh voices has also increased. In the future, we will continue listening to diverse opinions and strengthen our activities so that there is an accurate, deep, and lasting understanding of NGK SPARK PLUG.



Public Relations Office
Riki Matsuno

Returning Profits to Shareholders

Returning profits to our shareholders is one of the priorities on our agenda, and we aim to maintain consistent and stable payment of dividends. Presently, we seek to achieve a consolidated dividend payout ratio of 20% or more, and intend to continue semiannual payment of dividends. Our dividend payment plan is based on comprehensive financial strategies taking into consideration the following budgets; R&D expenses (as needed for future growth), capital investment (to expand or streamline our business) and internal reserves (for future investments). Dividend per share during fiscal 2014 was 36 yen.

With Our Suppliers



Performance — Workplace CSR Activities

Enhancing Seminars and Practical Onsite Courses for Suppliers

NGK SPARK PLUG holds seminars for suppliers on themes that include process improvement, quality control, industrial safety and health, and the environment as well as practical onsite courses in which we visit the production sites of suppliers to work for improvements. In addition, we are working to enhance these courses so that even more suppliers are able to take advantage of them. We implement the activities to help with human resource development at our suppliers, enhancing the capabilities of their companies. Last fiscal year, we established a new course for beginners and held a total of 23 lectures. We aim to work in partnership with our suppliers in the future to enhance their manufacturing capabilities.



Scene at a seminar



Completion ceremony for a practical onsite course

Voice of a Practical Onsite Course Organizer



Supplier Relations &
Development
Procurement Group
Masanori Maeda

Where There is a Will, There is a Way

In practical onsite training, we not only communicate techniques alone, but also try to create an activity that will be sustained by valuing free exchange of information and autonomy of the participants and the enhancement of their awareness and motivation.

Procurement Policy

We aim to realize globally optimal procurement based on our quality products principle. To this end, we focus on strengthening cooperation with suppliers and promoting our CSR efforts throughout our supply chain system, while at the same time striving to carry out proper purchasing transactions when procuring materials and parts, based on the following guidelines:

【Action Guidelines】

- We conduct rational transactions based on fair, transparent, and open competition.
- We select a supplier based on comprehensive assessment of its product quality, technology, prices, deliveries, and efforts to continuously make improvements.
- Aiming to become a good corporate citizen, we are engaged in business operations complying with applicable national and international laws and regulations.
- We ensure stable procurement of better quality products at a reasonable cost and an earlier delivery.
- Aiming to procure more eco-friendly products, we strive to promote our green supplier system.
- Aiming to have our suppliers understand our company, we strive to establish mutual trust with our suppliers. Recognizing that we and our suppliers can be good partners for each other, we strive to realize our mutual development.

Basic Philosophy

It is indispensable to establish healthy partnerships with our suppliers to procure better raw materials and parts in a more timely and stable manner. Through our supply chain system, we work hard together with suppliers, aiming at mutual prosperity and further strengthened mutual trust.

Promoting CSR-Oriented Procurement

We promote the following activities for suppliers and our employees respectively, for the purpose of ensuring fair transactions with suppliers and the establishment of mutually beneficial sound partnership with suppliers.

<For suppliers>

- We explain our CSR procurement guidelines on our websites.
- We actively communicate with our suppliers to explain our corporate policy through corporate policy conferences, etc.
- We implement our CSR program with suppliers self-checklist and provide feedback on the overall results.
- We explain our Green Procurement Guidelines on our websites.
- We visit the premises of suppliers for practical onsite activities, such as 5S kaizen (improvement) and TPM, and hold various seminars.

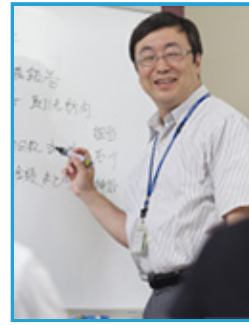
<For our employees>

- We hold seminars for our procurement personnel to ensure their compliance with the Subcontract Act.

To Continuously Develop Along With Our Suppliers

Calling for changing "from a cost center to a profit center," our Procurement Group aims not just to engage in conventional cost management, but to build an organization that can closely connect NGK SPARK PLUG with suppliers through purchasing and make proposals and value propositions. CSR is one important element of value that a company can offer. Therefore, we produced CSR Procurement Guidelines, and made overall assessment of suppliers' trend through suppliers self-checklist, and provided feedback on the results.

We aim to pave the way to continuous social progress through promoting CSR and mutual development together with our suppliers.



Vice Group Manager
Procurement Group
Hiroyuki Maeda

Sharing Corporate Policy

We hold a corporate policy conference with our main suppliers, offering them an opportunity to deepen their understanding of the present situation of our company and our goals.

At Supplier Conference held in May 2014, we explained our business results, the company's basic policy and the policy of each department based on it, and the business environment for the company, and we made statement that we together will overcome challenging business conditions together. We requested suppliers to positively work with in a responsible manner toward such issues as enhancing quality, reducing costs, and promoting CSR initiatives.



Corporate policy at Supplier Conference

Improving Our Supplier Evaluation System

We already had a system in place for evaluating our suppliers with regard to quality, deadlines and cost, but we improved it to be fairer and more impartial and open. Furthermore, we have recognized suppliers that received particularly excellent evaluations at our corporate policy conferences.

BCP Initiatives

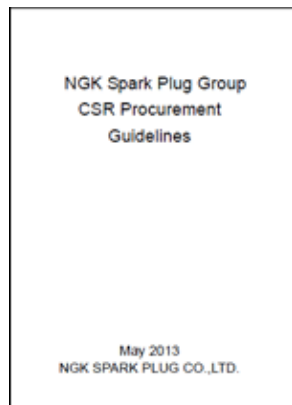
NGK SPARK PLUG is working to formulate a BCP with the objective of a rapid resumption and continuation of business in preparation for a disaster or accident cases. We have promoted countermeasures that include multiple purchasing for key products including materials and parts.

A diverse range of materials and parts are required for manufacturing NGK SPARK PLUG's products. Therefore, we are trying to secure systems that respond to the BCP through sharing our objectives with each supplier and making efforts across the entire supply chain.

CSR Procurement Guidelines

In May 2013, we released the NGK SPARK PLUG Group CSR Procurement Guidelines, which are based on the Group's procurement policies and a complete picture of the Group, including Corporate Philosophy and CSR Policy.

We are positioning the promotion of CSR as one important element of working for continuous growth of the supply chain as a whole. We ask that suppliers understand this intent and put it into practice.



CSR Procurement Guidelines [484KB] [PDF](#)

▶ Japanese version

Handling of Conflict Minerals

Our Group promotes procurement activities taking full consideration of social problems, such as human rights and environment.

Conflict minerals have been mined in the Democratic Republic of the Congo and its surrounding countries, and it is feared that they are a source of financing for armed factions. We see this conflict minerals issue as a serious social problem for procuring resources and raw materials.

We conduct surveys back through the supply chain to find out whether conflict minerals are used or not, and if there is suspicion of use, we make efforts to avoid using them.

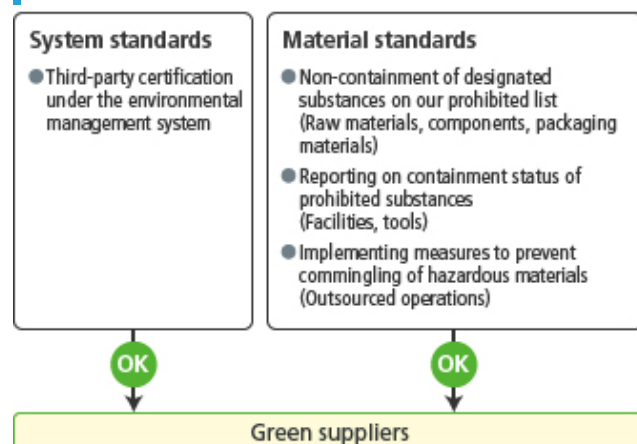
Green Procurement Guidelines

These guidelines explain the basic concepts of our green procurement based on our environmental policies.

We reviewed the list of related chemical substances in June 2014 and released version 8.04 of the guidelines. We ask our suppliers to study the guidelines and cooperate with our green procurement.

▶ Green Procurement Guidelines (Japanese version only)

Certification Standards



Green Purchasing Requirements

In the purchase of office supplies and appliances, we choose an environmentally- friendly product.

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

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

Human Resource Policy

Human Resource Policy

We acknowledge that employees are the most important management resources. In the light of this, we respect the diversity and individuality of our employees and cultivate abundant human resources, striving to promote the further development of our Group as a whole.

【Action Guidelines】

- Respecting the rights of our employees, we eliminate discrimination and harassments in employment, and avoid the use of forced labor or child labor.
- We secure and foster human resources who help pass down our quality products principle to the following generations. To this end, we provide learning opportunities and other programs to support the career development of our employees.
- We establish a personnel evaluation system to ensure that people with different qualities can fully realize their own capabilities.

Basic Philosophy

Employees are the most important management resource. We respect the diversity and individuality of our employees, aiming to cultivate a wide variety of human resources. We also place an emphasis on offering a desirable working environment in which individual employees are encouraged to make full use of their capabilities and potential.

To train and support the employees who will create the future of NGK SPARK PLUG

Things are changing rapidly around our company, such as people's values, markets, increasing influences of developing countries and so on. We, the Human Resources Department, define our mission as "creating foundations to produce 'diverse human resources' to support managerial and business strategies," and we are framing plans that allow us to create a NGK SPARK PLUG with the following environments: [1] one that continues to develop diverse human resources with a can-do spirit and the ambition to create new businesses, products, technologies and markets, [2] one that identifies diverse employees in domestic and overseas units so as to allow them to use their talent and aspirations effectively, and [3] one that spreads the values of globalism, speed and fairness and encourage employees to demonstrate their ambition and talent.

We will take the following measures: [1] firmly establish a new human resources system at NGK SPARK PLUG and expand it to affiliates, [2] establish a recruiting and education management method to allow us to strategically and continuously hire and train diverse human resources, and [3] lay the foundation for training the next generation of global managers.

We will train and support trusted employees with a can-do spirit who can distinguish valuable corporate culture from that which should be changed, who never simply resign themselves to the present situation, who make strenuous efforts to cope with drastic changes and who have an aspiration to realize an innovation.



General Manager Human Resources Dept.

Masakazu Mori

Expanding the New Human Resources System to Group Companies in Japan

We are working to consolidate our new human resources system, which was overhauled in April 2014, while repeating Plan-Do-Check-Act cycles in order to establish an environment for the development and active participation of diverse human resources and appropriately reward initiatives aimed at creating value.

In addition, we will introduce our new human resources system at group companies in Japan as well in order to strengthen governance. In April 2015, we began introducing our new human resources system at NTK Ceramic Co. Ltd. and Ceramic Sensor Co., Ltd.

Main human resources systems

- Occupation type, qualification and managerial position systems
- Wage, bonus and retirement money systems
- Annual salary system
- Rating system and objective management system
- Continued employment system

Anticipating challenges that will change the company

This is a big change from our previous human resources system, and people who can truly bring about change are required. We have reformed the system that forms the foundation, so now it is necessary for individual employees to change.



Deputy Manager
Human Resources Dept.

Tsuyoshi Takahashi

Respecting Diversity



Performance — Workplace CSR Activities

Holding the ASEAN Human Resources Conference in Thailand Aimed at Building Global Mechanisms for Human Resource Development

We have been holding the Global Human Resource Conference every year since 2013 aimed at a global human resources system and human resources development. Under the initiatives to date, we have created a system for overseas employees to leave their home countries and take on new environments to capitalize on their careers at other group companies.

Using this system, exchanges of human resources have commenced on

a global scale through temporary transfers (cross-border temporary transfers from overseas group companies).

In order to expand the program further, we held the ASEAN Human Resources Conference in Thailand in 2015. Human resource managers from Group companies in Thailand, Indonesia, Malaysia, Vietnam, the Middle East and India took part in a lively exchange aimed at the introduction of unified policies and mechanisms related to human resource development in the ASEAN region, including India.

Going forward, we will continue working to establish a framework in partnership with the Human Resource Dept. based on a global consciousness, as we strive for group-wide development of human resources.



Participant in the ASEAN Human Resources Conference

Voice of a Global Human Resources Organizer



Human Resources Dept.

Tomoyuki Kato

Aiming to be a Personnel “Assets” Company

The participation of overseas human resources accounting for over one third of the group as a whole is a major driving force at NGK SPARK PLUG. There are differences in culture, religion, and customs, but I feel that discussing and working toward the major common objective of developing personnel “assets” with human resource organizers from countries around the world is really worthwhile. I will aim to further enhance the global network of the Human Resources Dept. to establish an environment that allows individual skills to develop and play an active part in the group overall.

Promotion of Diversity

We promote diversity in our organization as we believe that diversity and inclusion are essential for companies to attain sound growth and ensure happiness for all employees. Here, diversity means an employee-friendly workplace that accepts different personnel "assets" (one in which all people regardless of their gender, age, disability or nationality, enjoy their work) and includes diverse values and ideas that move the company forward.

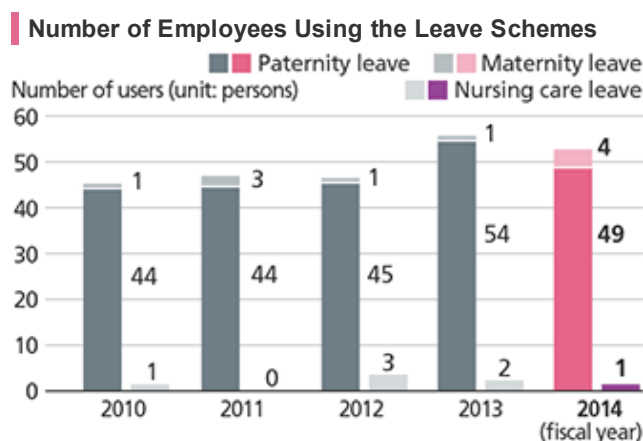
Work-Life Balance

In fiscal 2013, the number of employees in paternity/maternity leave has exceeded 50, and after the leave, almost of them returned to work. There are also male employees who take paternity leave.

The company offered the opportunity to the employees to spend more time nursing children than before, by extending availability of shorter work day for child rearing beyond the conventional period of the first grade of elementary school to the third grade.

Also, as a measure to shorten working hours, we will continue with designating Wednesdays as "No Overtime Day," and we are encouraging the well-planned use of yearly paid holidays and introducing a system of special "refreshment" vacation.

(Under the refreshment vacation system, employees who have been with the company a fixed number of years are encouraged to take three, five or 10 days of holidays.)



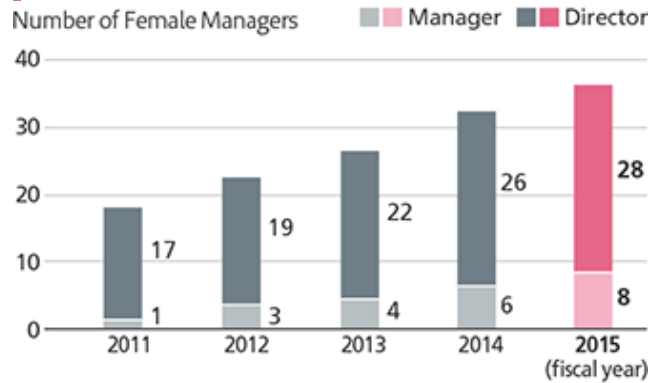
Promoting the Active Participation of Women

We are promoting the active participation of women as a management strategy from the top down. We launched the "DIAMOND Project" in June 2013 to implement a range of initiatives with the following principles: "changing the corporate culture," "changing the consciousness," and "changing the environment."

We held events, such as "Forum for Female Employees," "Training for Next Generation Female Leaders," and "Career Advancement Support Program," to support female employees in building their career and to stimulate their ambition. We also held lecture meetings for all senior managerial employees to deepen their understanding of diversity management.

Furthermore, in all departments, including those of Japanese affiliates, general managers devised and implemented action plans that suited their own departments. We are also expanding systems to create a workplace where female employees derive greater satisfaction from their work.

Number of Female Employees in a Managerial Posts by Fiscal Year



Strengthening and Maintaining Initiative to Promote Active Participation of Women

In fiscal 2013, we held training primarily for managers, and in fiscal 2014, we held training primarily for women. The action plans organized by the manager of each department, which commenced in fiscal 2013, have been maintained, increasing awareness of acting as a department.



Training for Next Generation Female Leaders

We held training for female supervisors and subsection chiefs, who are close to management positions, to learn about management, leadership, corporate strategy and other areas and to interact with officers of NGK SPARK PLUG and managers from other companies.



Career Advancement Support Program

Women who are aiming for supervisor positions took part with their bosses to attempt challenges one rank above them. In March, the participants presented the results of their efforts to the President and the Vice President.

Voice of the Project Leader

We aim to create a company where all employees can play an active role

Our company has many excellent female employees. I hope we will be a company where all employees can work comfortably and their ideas can be realized.



Members of DIAMOND Project (Front row, center: Otsuka)
Human Resources Dept.

Etsuko Otsuka

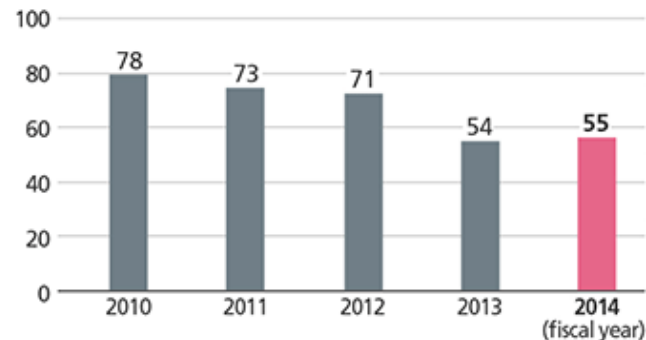
Post-retirement Reemployment

In 2001, we introduced a post-retirement reemployment system, with the aim of taking advantage of long-accumulated knowledge and expertise of retired employees and also satisfying their desire to stay at work.

Employment of the elderly population is an important issue for our society, as the national pension system has been reformed, deferring the starting age of recipients, and the demographic shift into aging society is quite rapid. We are working hard to prepare an environment that meets the needs of older workers, our company and the worksite and use it in a way that takes into consideration the aptitudes, motivation and abilities of senior employees.

Number of Retirees Reemployed under the System

Number of users (unit: persons)



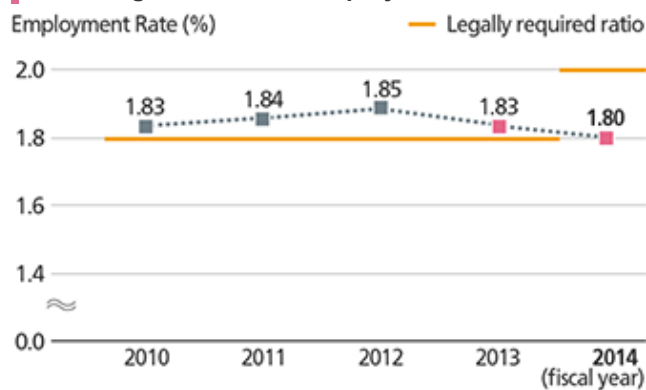
Employment of the Disabled

The ratio of disabled employees at NGK SPARK PLUG was 1.80% at the end of fiscal 2014. Although we actively expanded recruitment to meet the legally required ratio of 2.0%, unfortunately our results fell short.

In addition, we are endeavoring to create a workplace where employees, including disabled employees, can do their jobs safely.

Percentage of Disabled Employees

Employment Rate (%)



Human Resource Development

Basic Philosophy

We aim at the development of those who can communicate the company's traditional attitude of emphasizing quality-oriented principle to younger employees, and also those who are dependable and have the ability to cope with changes inside and outside the organization and follow through reforms. To this end, we implement diverse education and training programs systematically, based on our corporate Human Resources Development Concept, with the aim of ensuring continuous capacity building of employees.

Education/Training Programs

Our education and training activities consist mainly of OJT (on-the-job-training), through which employees are trained to acquire technologies and knowledge in their normal working situation. We also offer OFF-JT (off-the-job-training), providing employees with new technologies, knowledge, and skills outside their respective workplaces. We have a wide range of OFF-JT programs that include training by organizational level and role to provide necessary knowledge and skills, product quality education, environment and safety education, manufacturing

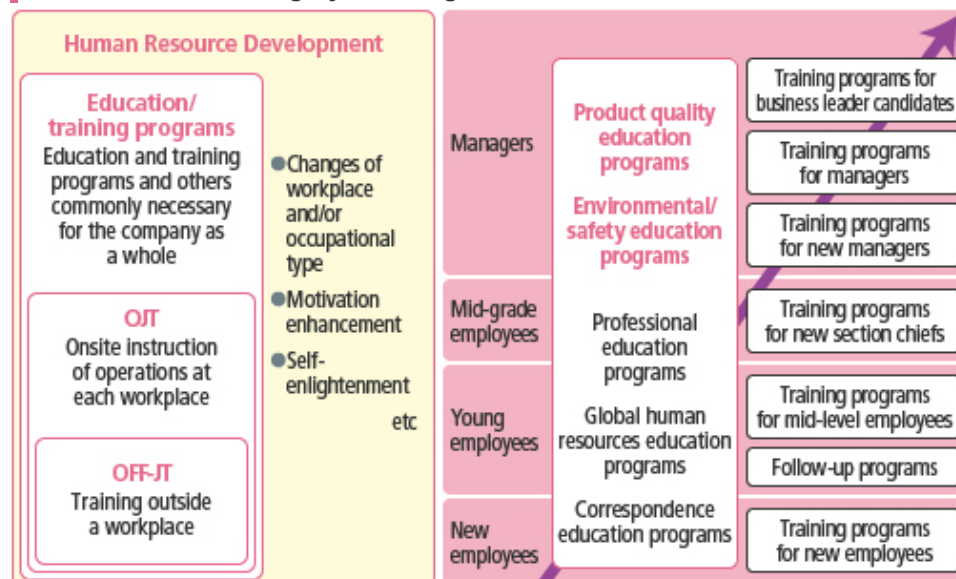


Education and training

education, education in global business and career development support. During fiscal 2014, 6,486 employees participated in OFF-JT programs.

In addition, in fiscal 2014, we began the roll out to each of our departments of Education & Training Planning (ETP), which is a method for drafting education and training plans that are necessary and meaningful in each department, in order to further reinforce human resource development. ETP is a system for purposefully developing and maintaining education and training in order to enhance the competencies needed to accomplish operational processes in the implementation of business strategy in each department.

Education and Training System Diagram



Labor-Management Relations/ Compliance with Labor Law

Labor-Management Relations

Labor-management relations should be oriented to the combined employer-employee effort to contribute to society through the provision of good products and services. At NGK SPARK PLUG, both labor and management understand their respective responsibilities and strive to improve the work environment through mutual trust and cooperation.

Labor-Management Conferences

Labor-management conferences are held three to four times a year on individual workplace and companywide bases, providing communication opportunities. These are chances to discuss various topics including the company's situation and how to improve the labor environment, and opportunities for employees to have their opinions heard.

Reduction in Working Hours

We are working to reduce overtime in order to reduce total working hours. When pre-planned overtime is known about, the company management and the labor union confirm the situation in the workplace and engage in consultation designed to keep working hours within the target.

Anti-Harassment Measures

The company management and the labor union are working together to prevent any harassment and to protect the human rights of all employees.

Work Rules explicitly prohibit all sorts of behavior that constitute harassment, and we have an anti-harassment committee responsible for the prevention of such behavior through the company newsletter and provide level-specific training programs.

Also, all plants have an advisor, who is designated jointly by the company management and the labor union, to create an environment where it is easy for employees to voice concerns. A total of eight cases of power or sexual harassment were handled in 2013.

Greeting Campaign

We have been continuing our "greeting campaign" since September 2008, encouraging employees to say "good morning" with a smile at the start of each day and "goodbye" when leaving work. Once a month, in the morning and after work, representatives of the labor union and the management stand on the sidewalks at the premises to greet employees.



Scene from the Greeting Campaign

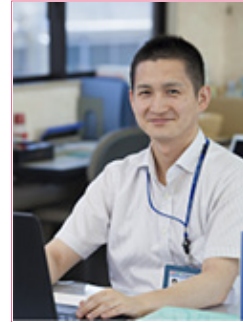
Group Response to Domestic Labor Laws

Individual affiliates need to respond to frequently updated labor laws. Even if a single company in our group does not comply with a law, the responsibility lies with the entire group. Therefore, we always keep our eyes on potential risks to prevent noncompliance. An exchange meeting is held every quarter between general managers of our affiliates, where problems that they face are discussed and information is shared. The entire group continues to join hands in compliance.

Voice of Our Human Resources Organizer

Deepening our own understanding and passing it on to affiliates

In fiscal 2014, in order to strengthen governance as a group, the NGK SPARK PLUG Group began reforming human resources systems at affiliates, promoting the establishment of the foundation for the group human resources system. We also explained the basic rules, philosophy, and important points to employees at affiliates once again to achieve proper recognition of harassment and the management of working hours. Insufficient understanding of labor standards may very well lead to violations of laws and regulations, so we are endeavoring on a daily basis to deepen our own understanding and working to ensure affiliates fully understand as well.



Human Resources Dept.

Kenji Takagi

Occupational Safety and Health Basic Policy

Occupational Safety and Health Basic Policy

We strive for occupational safety and health as the starting point of business activities on the basis of respect for human life and dignity.

【Action Guidelines】

- Observe laws and self-standards relating to occupational safety and health.
- Reduce risks and elimination of work-related accidents through sustainable improvement in occupational safety and health management system and performance.
- Prevent health hazards and promote the physical and mental health of employees.
- Publicize this policy among all the employees, promote consciousness through training and enlightenment, and expand toward the overall participation in labor safety and health activities.

Basic Philosophy

Occupational safety and health is the most familiar theme for employees in their daily duties. It is the most important theme for enterprises as well in their efforts to provide a working environment in which employees are encouraged to do their best in operations. We are well aware that offering a secure and safe workplace is our important corporate responsibility.

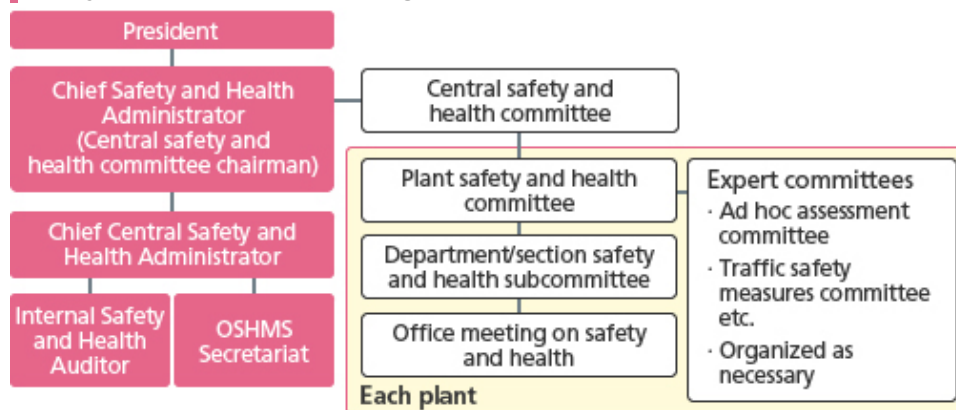
To this end, we established our occupational safety and health management system in 2006, aiming to realize "zero accidents" and secure safety at all workplaces. We will continue strengthening our safety and health management activities at a company-wide level, aiming to establish a corporate culture of "safety first."

OSHMS

With the aim of eliminating on-the-job accidents and creating a comfortable, safe work environment, we have established an in-house occupational safety and health management system (OSHMS). We are accredited as complying with JISHA OSHMS Standards.

Each plant and office set safety goals and safety plans in accordance with our OSHMS guidelines, aiming to conduct OSHM activities based on a "total involvement" principle. To attain a step-by-step improvement of our safety status, the progress and results of such OSHM efforts are verified by our internal safety and health auditors as well as the plant safety and health committee and the central safety and health committee.

Safety and Health Promotion Organization



* Each plant refers to Headquarters and Nagoya Plant, Komaki Plant, Miyanojo Plant, Ise Plant.

Targets & Results for Fiscal 2014 Evaluation standards achieved:○ Not achieved:×

	Fiscal2014			Fiscal2015
	Target	Result	Evaluation	Target
1. Elimination of work-related accident	Reinforcement of chemical substance control	Extended display of GHS labels to subdividing containers in order to recognize hazardous materials	○	Promoted proper management of chemical substances
	Promotion of full understanding of hazard sources (workplaces developing new risk assessments)	Implemented based on promotion plan	○	Spread and entrenched risk assessment in conjunction companywide change
				Promoted comprehensive hazard source identification
	Reinforcement of safety and health patrols (action and equipment)	Changed patrol technique to Safety Observations adopting fixed point observation and trialed at Komaki Plant. Will extend to four plants in 2015	○	Spread on-the-spot risk prediction and pointing and calling
				Strengthened safety and health patrols (conduct aspect)
2. Improvement of work environment	Improvement of the workplace environment (health)	All hazardous material workplaces maintained first management category.	○	Maintained and improved the working environment in the workplace (health aspects and safety aspects)
3. Promotion of health	Promotion of self-management of health	Implemented health advice using results of health check-ups and held health promotion fairs at each plant to trigger awareness of own health	○	Promoted self-management of health
	Workplace checks for personnel with suspected health problems			Workplace checks for personnel with suspected health problems
4. Enhanced of education, training and enlightenment	Implementation of safety and health education and training, use of education through experience	Held and participated in various safety and health education seminars	○	Enhanced safety and health education, utilized learning through experience
	Promotion and establishing of pointing and calling	Fixed pointing and calling stickers to roads and passages in the plant and extended pointing and calling	○	Developed procedures for non-routine work and promoted education (skill evaluation)
	Spread of the concept of new risk assessment, circulation of hazard source information (workplaces developing new risk assessments)	Implementing based on promotion plan		
	Implementation of troubleshooting skill evaluation and, as required, risk prediction	Held briefing session at the beginning of the fiscal year and publicized companywide	○	

Occupational Safety Activities

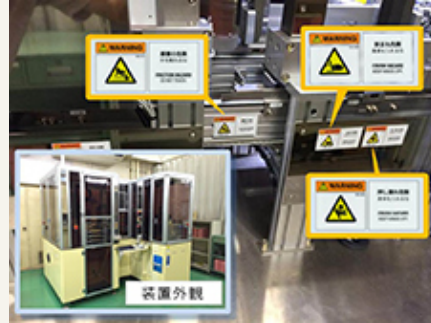


Performance — Workplace CSR Activities

Equipment Safety Activity in Production Engineering Depts.

Equipment safety in production sites is one of the important issues for a manufacturing company. Labor safety initiatives are required that not only conform to Japan's Industrial Safety and Health Act but also to international standards such as ISO (International Standards Organization) and IEC (International Electrotechnical Commission).

In this situation, we have been striving to make production equipment even safer at the stage of introduction under the Equipment Standardization Project since fiscal 2013. In addition to defining hazard sources and evaluating safety based on risk assessment, and taking measures to reduce risk, we are identifying residual risk and providing information to the production sites. In this way, we are promoting the establishment of a safe workplace through the introduction of equipment.



Communicating equipment risks using labels

Voice of Our Project Leader



Equipment Dept.
Kazuhiro Nozawa

We Provide Safe Equipment, Aiming to Realize “Zero Accidents”

As suppliers of equipment, one of our goals is “zero accidents,” and we work to strengthen the provision of information to ensure this does not end up as a unilateral hope, but is a recognition that is shared with the production sites.

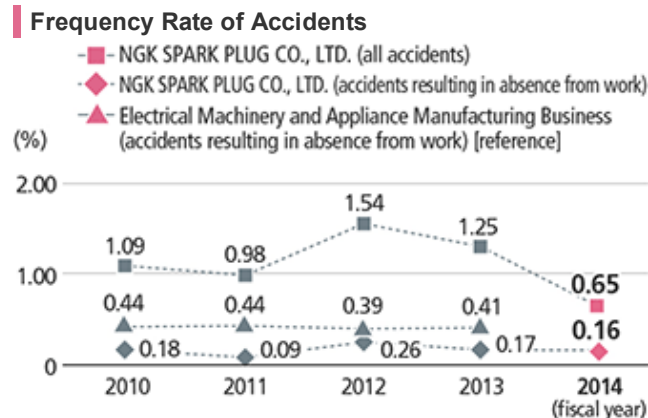
Going forward, we will aim to provide even safer equipment by working to upgrade the skills of designers and reviewing measures to reduce risk.

Elimination of Occupational Accidents

The results of labor and management's joint safety and health activities, which include risk assessment, on-the-spot risk prediction, and pointing and calling, are becoming apparent little by little. In fiscal 2014, the total number of accidents fell substantially from the previous fiscal year across the company, and the total frequency rate also declined from 1.25 to 0.65, recording a low figure significantly less than 1.

In fiscal 2014, we also reviewed the mechanism incorporating the root cause identification process into investigations from the 6M standpoint with the objective of strengthening prevention of recurrence for the work accidents that do unfortunately occur, and we commenced operation of the mechanism in fiscal 2015.

Meanwhile, as there were a lot of accidents during commuting compared with an average year, although the other party was at fault in the majority of them, we will develop defensive driving, including the implementation of traffic risk prediction and driving that anticipates the moves of other road users.



Enriching Education and Awareness

We are working to stimulate everyday safety and health activities in the workplace by carrying out safety and health education appropriate to each organizational level, including new employees, third-year employees, leaders, subsection chiefs and managers.

We distribute "the Handbook for Safety and Health Management" to all employees in the workplace as a daily activity tool and ensure that each employee takes safety action as a member for creating a safe environment at NGK SPARK PLUG. Supervisors are actively managing safety and health in the workplace through such activities as workplace patrols, Kiken-Yochi (risk prediction) training and sharing examples of Hiyari-Hatto (near misses). The status of these daily workplace activities is confirmed through internal audits and other means.

The Safety and Health Committee contributes to building safe and secure workplaces through conducting inspection tours of the other departments and equipment, and pointing out issues that are difficult to notice through voluntary inspections by one's own department, making use of the merits of cross-departmental activities.

Safety and Health Committee Activities with Workers in the Workplace

As one activity to create a safe and secure workplace, the Safety and Health Committee conducts workplace inspection tours. Committee members from other departments visit each workplace and carry out improvement activities such as exposing danger areas, taking permanent countermeasures and reexamining health management. Inspection tours by committee members from other departments allow each department to share its initiatives and culture and raise the consciousness of occupational safety and health.

Moreover, in fiscal 2014, we have been phasing in an inspection technique called "Safety Observation." Under Safety Observation, we check workplace risks, primarily the actions of workers, by observing a fixed point in the workplace over a long period of time.

Toward the Spread and Consolidation of New Risk Assessment (RA)

There are a variety of potential risks in the workplace. New RA is a tool for systematically and objectively studying and evaluating hazard sources related to equipment and work in the workplace following the introduction of equipment and visualizing the degree of danger in the form of a risk level. It is an activity that we have been expanding in stages since fiscal 2013. We can pave the way to the creation of safe and secure workplaces by determining the order of priority according to the magnitude of risk and implementing workplace management measures that include countermeasures to systematically reduce risk and awareness raising about hazardous locations.



Scene from hands on RA training using actual equipment

Voice of Our Safety and Health Leader

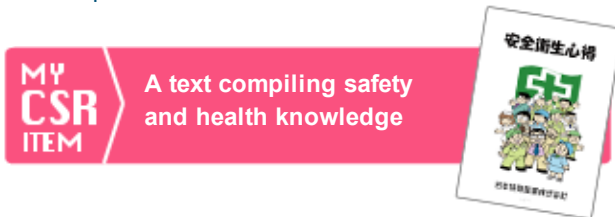
We Aim for Penetration and Entrenchment of Risk Assessment

The power of every individual worker working on the frontline is essential for the implementation of risk assessment. In order to ensure that many people learn the right risk assessment philosophy and techniques, we hold regular Practical Risk Assessment Training. The training covers classroom lectures through to learning about identifying and evaluating hazard sources and managing residual risk using actual equipment, and we hope that they apply these skills to risk assessment in the workplace.



Environment and Safety Management Dept.

Takahiro Kawakita



Improvement of Working Environment

We conduct working environment measurements in accordance with the Industrial Safety and Health Act, targeting workplaces that handle chemical substances (organic solvents and specified chemical substances) and workplaces subject to significant dust pollution or severe noise. Plants and operational sites that have been classified in the second or third management category are especially encouraged to implement effective solutions so that they can be reclassified in the first management category. We also take measures to prevent cases of heat stroke in the summer by measuring the WBGT (Wet-Bulb Globe Temperature used as a heat index) in hot workplaces, encouraging an adequate intake of water and salt, providing cooling gear and the like, holding seminars on preventing heat stroke, and installing oral rehydration solution vending machines.

In our offices, we measure the level of lighting and CO₂ concentrations to ensure that the work environment is always acceptable. In winter, we install humidifiers in our offices to help prevent the spread of colds and influenza.

Health Promotion

Health Promotion

We announced “Being your best physical and mental condition to your workplace and bring them to your home with good smile” as our company slogan. Self-discipline is a key to the maintenance of one's condition, and we promote employee's autonomous health management efforts.

We also include health information in the company newsletter to raise employees' health consciousness and promote self-management of health.

Health Checkups

Our industrial physicians, general practitioners and public health nurses follow up with employees who have abnormal results in their health checkups and refer them to medical institutions when necessary. These coordinated efforts allow employees to maintain and improve their own health.

We include health information in the company newsletter every month to raise employees' health consciousness and promote self-management of health.

Strengthening Mental Health Care

We are working on had in-house and external Line-Care educational programs for managers, and implementing to read the Self-care hand book in our workplace to make our employee prevent awareness of disease and self-management of health.

Also we are strongly working on held in-house lectures and setting up the Support-line for employees who feel stress and problems mentally.



The Self-Care Handbook
(Japanese only)

Efforts by NGK SPARK PLUG Health Insurance Society

Working together with the company and the labor union, the health insurance society provides a wide variety of programs to support the mental and physical good health of member workers and their families.

Specifically, health management and disease prevention efforts conducted by the health insurance society include: metabolic syndrome improvement/prevention programs; subsidies for flu vaccination; and other health management promotion programs such as walking tours and bus-hiking tours. The health insurance society also operates three clinics at our domestic plants, as well as a resort facility for member employees in the Gokasho Bay area located in Minami-Ise, Mie Prefecture.

With Local Communities and International Society



Performance — Workplace CSR Activities

We Support a Professional Soccer Team that Has a common Philosophy

Based on our social contribution policy of “contributing to society as a good corporate citizen,” NGK SPARK PLUG concluded an official partner agreement in January 2014 with FC GIFU, a professional soccer club. Based in Gifu Prefecture, a region with which NGK SPARK PLUG has strong ties, FC GIFU actively conducts social contribution activities under the theme of “a team for citizens of Gifu Prefecture.”

In July 2014, we established the NGK SPARK PLUG Prize for the MVP of the season determined by the votes of supporters strengthening the connections between the team and its supporters and creating a platform to push for promotion to the J.League Division 1. From now on, all of our employees, including those at group companies, will be united in boosting up FC GIFU.



NGK SPARK PLUG thank you match

Voice of FC GIFU “Gifu Genki Activities” Leader



Scene from the Doronko Soccer Tournament

We will Bring Gifu to Life in Partnership with Everyone at NGK SPARK PLUG!

Under the slogan “Competing, Together: Bringing Gifu to Life, Bringing Gifu Together,” we carried out activities that contributed to the local community a total of 467 times in 42 towns and villages in Gifu Prefecture during the 2014 season. These activities included holding soccer classes, participating in local events, providing exercise classes at senior citizens’ facilities, soccer coaching at child care centers and kindergartens, and lecture meetings. We have boasted the highest number of such activities in the J. League for some time.

In the 2015 season, we will rename our social contribution program “Gifu Genki Activities,” and further extend them to enliven Gifu in partnership with everyone at NGK SPARK PLUG based on our desire to bring Gifu to life.

Expanding our Locally Rooted Social Contribution Activities both in Japan and Abroad



NGK Spark Plug Middle East FZE

Participated in Clean Up UAE, organized by an environmental NGO in Dubai, and conducted clean-up activities in the desert.



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

Provided food and clothing for children in an orphanage, who were thrilled and sent thank you letters.



Ceramica e Velas de Ignicao NGK do Brasil Ltda.

Supported a local basketball team as a sponsor, contributing to development of local sport.



NGK SPARK PLUG CO., LTD.

Komaki Plant

Participated in urban planning to reduce traffic accidents as members of a company in Aichi Prefecture which has the highest number of fatal traffic accidents in Japan.



NGK Spark Plugs (UK) Ltd.

Participated in and supported a rally for wounded soldiers and their families.



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

Donated funds and provided a training area by giving access to company site in cooperation with local firefighting activities.



NTK Ceramic Co., Ltd.

Ran blood donation drive at request of the Red Cross.



NNGK SPARK PLUG CO., LTD.

Miyanojo Plant

Hosted students on work experience from local junior and senior high schools, and students experienced plug shipment packing work.



NGK Spark Plugs (India) Pvt. Ltd.

Donated water coolers so that children can drink cool water at school in India, where it is extremely hot in summer.

Eco Vision 2015

Environmental Policy

We positively promote actions for environmental conservation through all business activities to contribute to construction of a sustainable society with the participation of everyone concerned.

【Action Guidelines】

- Environmental management: We will abide by all laws, regulations, protocols, and voluntary standards relating to environmental conservation to prevent environmental pollution. We also aim to manage both environmental conservation and business growth by continually trying to enhance our environment management system (EMS) and environmental performance from a global point of view.
- Business operation: We will promote environmentally friendly business activity to contribute to prevention of global warming, resource recycling, and biodiversity conservation throughout the entire life cycle of our products from procurement of the materials to disposal.
- Cooperation with society: We will try to disclose information and to enhance communication for improving the trust of our stakeholders and deepening cooperation with society. We also try to enhance environmental consciousness by positively ensuring participation of all the employees in environmental conservation activities.

Basic Philosophy

Environmental issues are a common challenge for all mankind. Every member of the NGK SPARK PLUG Group will work towards reducing environmental burdens from our business activities as much as possible and developing and providing products and technologies that contribute to improving the environment. We will also endeavor to communicate in greater depth with our stakeholders including our local communities so that we may all work together to contribute to creating a sustainable society.

Environmental Action Plan

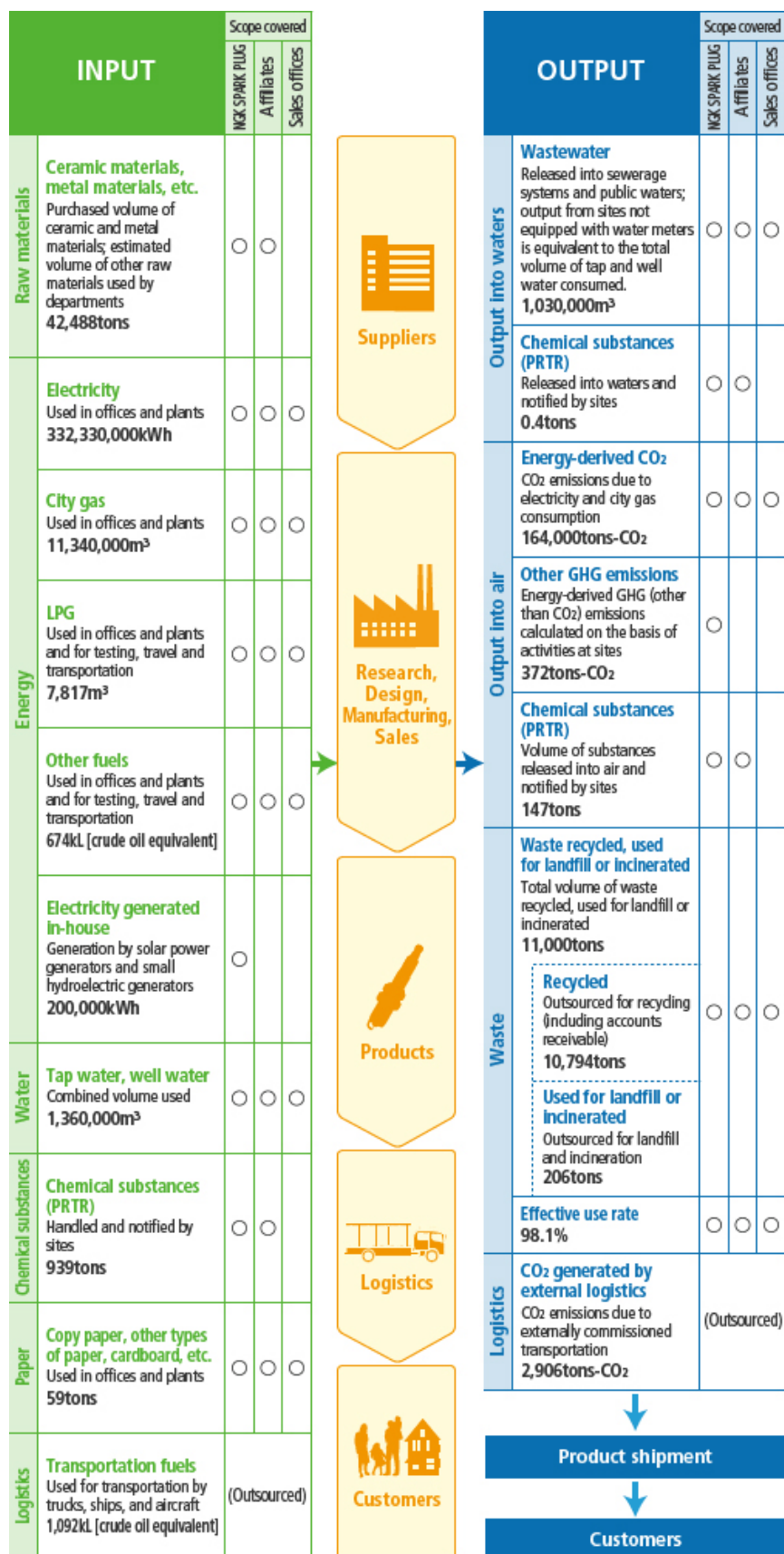
Environmental Action Plan

	Item	Fiscal 2015 Target
Environmental Management	Promotion of globally united actions	Formulation of global ecological vision.
	Promotion of environmental activities relating to corporate management	Transparentization of energy and waste cost and construction of system to promote actions for reducing the costs
Business Activities	Reduction of CO ₂ emissions	Emissions: down 10% from 2007 Per unit production: down 8% from 2007
	Reduction of disposal of wastes and valuable materials	Per unit production: down 30% from 2007
	Reduction of water use	Per unit production: down 8% from 2007
	Reduction in PRTR emissions	Emissions: down 80% from 2007
	Development of environmentally friendly products	Expansion of LCA to all the company's operation sites
	Enhancement of the management of chemical materials	Construction of a management system on chemical materials including supply chains
	Promotion of green procurement	Expansion of the green supplier system
	Recycling of post-consumer products	Establishment of recycling technology for products and packaging materials
	Reduction of CO ₂ emissions in physical distribution	Domestic distribution energy per unit production: down 8% from 2007
Social Cooperation	Environmentally friendly sales activities	Promotion of environmentally friendly sales activities
	Improvement of disclosing information	Improvement of disclosing global environmental information
	Enhancement of communication	Enhancement of communication with communities
	Enhancement of social contribution	Enhancement of social contribution to communities
	Enhancement of actions for biodiversity preservation	Enhancement of actions for biodiversity preservation
	Enhancement of environmental consciousness	Enhancement of environmental education

▶ 2014 Targets and Results [40KB] [PDF](#)

Environmental Burdens from Business Activities

Environmental Burdens from Business Activities



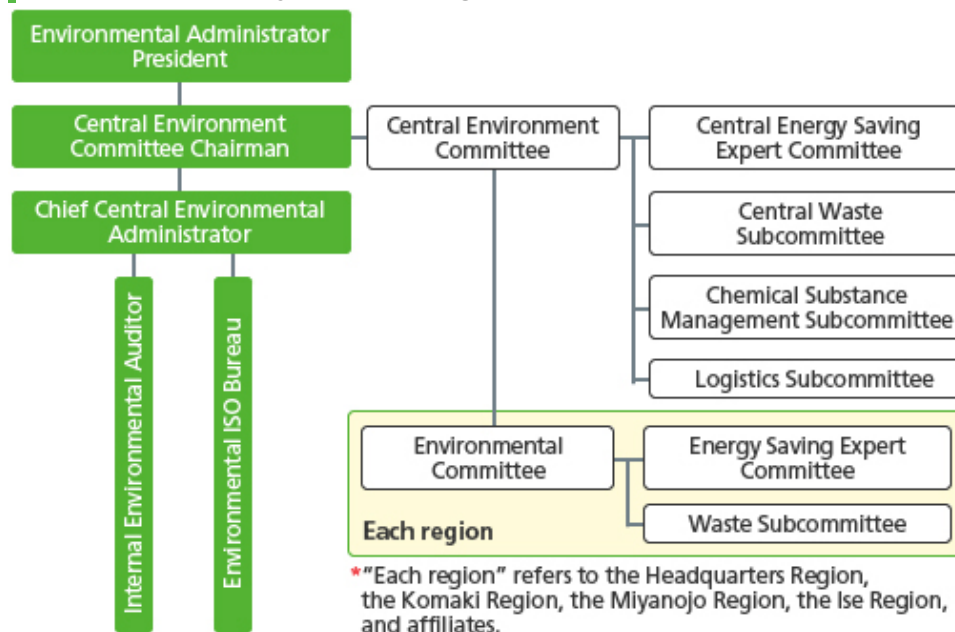
Environmental Management

Basic Philosophy

Our environmental management system, operating on the environmental policy shared by the entire Group, ensures systematic and effective environmental preservation activities. Under this system, all Group companies strive to achieve the Eco Vision.

The status of system operation is confirmed through internal audits. At the same time, the central and regional environment committees check progress towards achieving our goals and endorse challenges for each group, division, region, and department to facilitate continuous improvement.

Environmental Activity Promotion Organization



The Establishment Status of our Environmental Management System

We received ISO 14001 consolidated certification for NGK SPARK PLUG CO., LTD. and 10 domestic affiliates.

Overseas Group companies are also undergoing the ISO 14001 certification process. As of the end of fiscal 2014, 16 overseas Group companies are ISO 14001-certified. As a result, 98% of the entire worldwide Group employee body works at ISO 14001-certified sites.

▶ ISO 14001 Certified Locations [70KB] [PDF](#)

Environmental Risk Management

Inherent in business activities are various risks including environmental incidents and pollution. NGK SPARK PLUG Group identifies these risks and endeavors to reduce and/or prevent them.

PCB Control

We maintain strict storage controls for PCB waste stored at the Komaki Plant, Headquarters Plant, and Nittoku Seisakusho Co., Ltd.

On-site Confirmation of Waste Material Treatment

We regularly visit our waste disposers to confirm that consigned waste materials are being processed in accordance with our agreement. In fiscal 2014, we visited 47 companies.

Preventing Chemical Leaks

In order to prevent soil and water contamination caused by chemical leaks, we have implemented countermeasures involving equipment that includes preventing leaks through the development of double layered storage tanks and the early detection of leaks by installing pipes above ground. Due to the enforcement of the revised Water Pollution Control Act in June 2012, we were required to comply with structural standards by May 2015. We completed work to upgrade seven established facilities that are subject to the revised legislation before the deadline.

Drills for Emergency Situations

We hold regular drills for emergency situations to prepare for unforeseen accidents, etc. Each department identifies potential environmental accidents to prevent associated adverse environmental impacts.

In fiscal 2014, we held a drill for protection and treatment of leaks based on the scenario of an overturned container during transport of waste liquid with leakage of the contents. We also held a firefighting drill based on a fire scenario.



Drill in the Komaki area

Handling of Asbestos

We have been taking appropriate measures to prevent health hazards from asbestos. All asbestos used in our facilities has been completely removed. Some asbestos is still present in buildings as insulators, and we will continue to adhere to stringent control measures.

Compliance Status

To ensure compliance with environmental laws and regulations as well as agreements with local municipalities, etc., we set stringent voluntary standards to prevent violations and complaints.

In fiscal 2014, in Japan, there was one case of legal-related improvement, two cases of improvements related to agreements with local municipalities, and two requests for noise-related improvements. These cases were all promptly dealt with to prevent recurrence. There were no violations of laws and regulations at our overseas production sites in fiscal 2014.

▶ Data on Air, Water Quality, Noise and Vibration [68KB] [PDF](#)

Numbers of Violations and Complaints

(cases)

Fiscal year	Violations				Complaints			
	2011	2012	2013	2014	2011	2012	2013	2014
NGK SPARK PLUG CO.,LTD.	0	1	0	1	3	2	0	2
Affiliates (Domestic)	1	1	0	2	1	1	0	0
Affiliates (Overseas)	—	1	0	0	—	—	0	—

Handling Violations and Complaints in Fiscal 2014

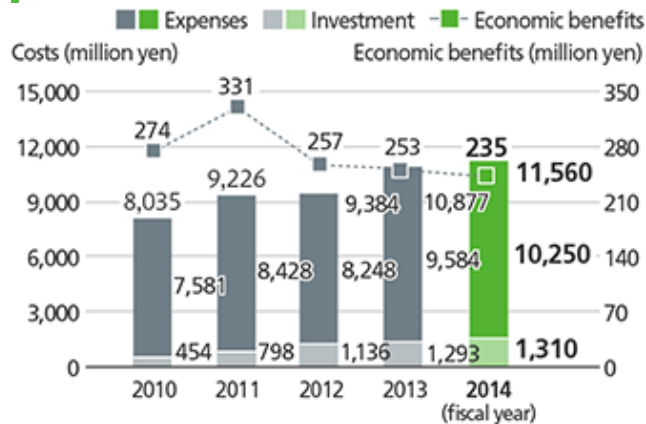
Classification	Plant/Company	Situation	Countermeasures
Violations	NGK SPARK PLUG CO., LTD. Komaki Plant	It was pointed out by the government authorities that although the location of facilities subject to the Water Pollution Control Act had been changed, submission of written notification of the change had been omitted.	We reported the facilities subject to the Act for which the location had been changed to the government authorities. We are also considering mechanisms to ensure that notifications under environment-related laws are not omitted.
Violations	Ceramic Sensor Co., Ltd.	The concentration of nitrogen in plant wastewater temporarily exceeded the value agreed with Komaki City. (While responding to the situation, the concentration of phosphorous temporarily exceeded our voluntary value.)	We suspended the discharge of wastewater outside of the plant and carried out wastewater reclamation at a waste disposer. We also changed the route of pipes to prevent a recurrence.
Violations	Ceramic Sensor Co., Ltd.	The pH value in septic tank drainage temporarily exceeded the value agreed with Komaki City.	We replaced a broken pH meter in addition to increasing the number of pH meters, and reviewed our system in order to strengthen monitoring.
Complaints	NGK SPARK PLUG CO., LTD. Komaki Plant	Noise occurred while we were dismantling equipment on the west side of the No. 12 plant, and we received a request for improvement.	We reviewed the method of work causing the problem and informed all employees.
Complaints	NGK SPARK PLUG CO., LTD. Miyanojo Plant	Noise occurred during inspection work due to an equipment malfunction in the No. 3 Building chip processing room, and we received a request for improvement.	We reviewed and standardized the method for inspection work.

Environmental Accounting

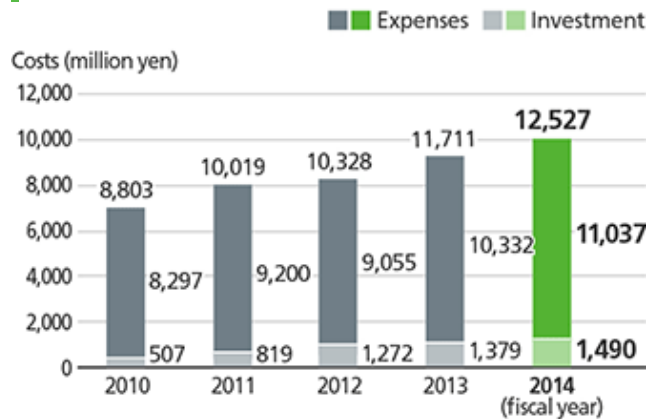
What is important in promoting environmental management is to gain a grasp of the costs and effectiveness of environmental preservation activities. We have been adopting environmental accounting since 1999, and in 2003 the accounting scope was expanded to include the entire Group.

In fiscal 2014, our environmental conservation costs were 11,560 million yen on a non-consolidated basis, and 12,527 million yen for the Group, an increase of 7.0% over the previous fiscal year. The economic benefit associated with environmental conservation activities totaled 235 million yen on a non-consolidated basis.

Environmental Conservation Costs and Economic Benefits (non-consolidated)



Environmental Conservation Costs (Group)



► Environmental Accounting [32KB] [PDF](#)

Eco-efficiency

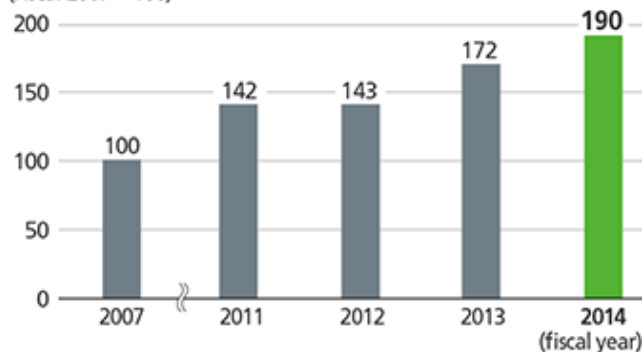
We calculate eco-efficiency by determining net sales per unit of CO₂ emissions and generated waste, and endeavor to improve it.

Fiscal 2014 saw an increase in both the CO₂ index and the waste index compared to the previous fiscal year.

Eco-efficiency(Group in Japan)

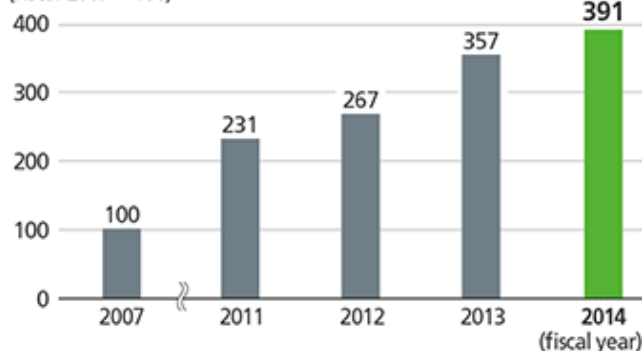
CO₂ Index

(Fiscal 2007 = 100)



Waste Index

(Fiscal 2007 = 100)



$$\text{CO}_2 \text{ Index} = \frac{\text{Net sales}}{\text{CO}_2 \text{ emission volume by production}}$$

$$\text{Waste Index} = \frac{\text{Net sales}}{\text{Volume of waste}}$$

Environmental Education

Environmental education is conducted to raise the employees' environmental awareness. In fiscal 2014, courses on the basics of environmental preservation, environmental burden calculation methods, and the environment management system were held a total of 63 times in all regions, and a total of 997 people attended courses.

Environmental education will be continued in fiscal 2015 to improve the overall level of the environmental consciousness of the Group employees.



Environmental education

Voice of Employee

Diligently Turning off Lights and Diligently Saving Electricity

This training was the first time I have thought deeply about the environment.

Knowing what kind of impact the exhaust gas from the car I drive and garbage I produce has on Japan and the world, I wanted to work on environmental problems and countermeasures in my immediate surroundings.

In addition, the Nino Headquarters Plant at SparkTec TONO Co., Ltd., which is where I work, will experience an expansion in its facilities and an increase in the number of employees in the future, so I want to make a smooth connection between environmental measures and our facilities and the workplace environment to take the initiative in carrying out environmental initiatives starting with small things like diligently turning off lights and conserving water.



Engineering Dept.
SparkTec TONO Co., Ltd.

Keisuke Tahara

Support for Suppliers

We offer our suppliers environmental education and support for establishing environmental management systems to acquire a third party certification. So far there have been applications for assistance from 43 companies, and 41 of them have obtained ISO 14001 or Eco-Action 41 certification. We continue to provide assistance to four companies configuring environmental management systems.

Environmental Management Classes Held

Topic	No. of Companies Attending	No. of People Attending
ISO 14001	6	8
Eco-Action 21	3	27

EMS Third-Party Certification Support Implementation Result

Topic	No. of Companies Attending
Eco-Action 21	4

Products

Basic Philosophy

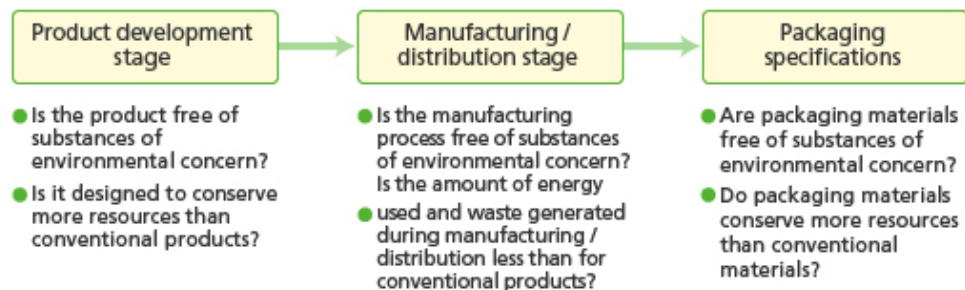
The NGK SPARK PLUG Group aims to contribute to improving the global environment through its products by making efforts to reduce the environmental burden throughout the lifecycle of its products, from raw material procurement to product disposal.

Aside from efforts to reduce CO₂ emissions and waste during the manufacturing and distribution processes, we are also endeavoring to produce environmentally friendly products by controlling the amount of energy involved in using and disposing of the product by customers and ensuring that they do not contain substances of environmental concern.

Product Assessment

To reduce the environmental burden from procuring of raw materials and using and disposing of products, it is important to predict the environmental impact at the design stage, and to take prompt countermeasures when any negative impact is foreseen. To ensure this, we conduct product assessments when we develop new products or change the specifications of existing products.

During a product assessment, the existence of substances of environmental concern, the amount of energy used, etc. are confirmed at each of the design, manufacturing/distribution, use, and disposal stages. If the assessment determines that there is a significant environmental impact, countermeasures will be taken before development is continued.



Reducing Environmental Burden throughout the Lifecycle

To reduce the environmental burden throughout the entire lifecycle of a product, we conduct an LCA (life cycle assessment) on our key products.

LCA is a method of providing an objective assessment on the impact on global warming and resource depletion throughout the entire lifecycle of a product.

In fiscal 2014, we reviewed our product assessment framework in order to incorporate the LCA approach into the product design stage. Going forward, we will promote the development of products that can contribute to the environment throughout the lifecycle.

Hexagon Socket Machining Tools that Last **Longer and Conserve Resources** Shaper Duo



Shaper Duo

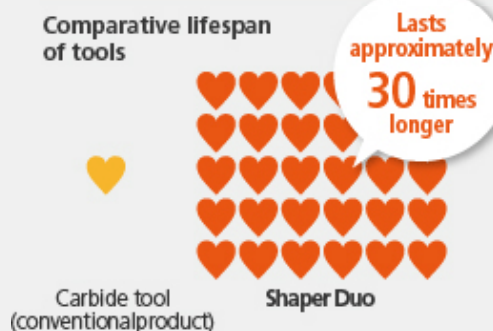
Machining



Shaper Duo has been accredited as an environmentally-friendly product by the Japan Cutting & Wear-resistant Tool Association for conserving resources and energy.

Conserving Resources

Comparative lifespan
of tools



Cutting tools for hexagonal socket machining of male screw heads on a lathe need to be durable.

Shaper Duo contributes to reducing the volume of tool waste as it can last approximately 30 times longer than the conventional carbide tools in which the cutting blade is integrated with the holder.

Conserving Energy

Shaper Duo does not only have the advantage of conserving resources. The hexagonal socket machining of male screw heads, which was previously carried out through separate processes, can now be performed continuously immediately after processing of the shaft with a small automatic lathe.

This makes it possible to integrate the processes, thus contributing to conservation of energy in production.

Substances of Environmental Concern

Basic Philosophy

We have a three-step management system for handling substances of environmental concern : 1. Answering requests from customers, 2. Handling within the Group, and 3. Procurement from suppliers.

Naturally we ensure compliance with laws and fulfill customer requests. More than that, we aim to reduce the use and emission of substances of environmental concern so as to minimize their effect on the environment and human health.

Answering Requests from Customers

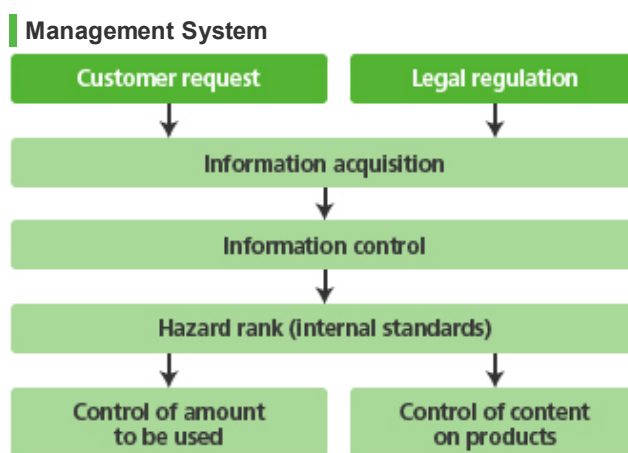
With the reinforcement of regulations on chemical substances contained in products, requests from customers in the automobile, electrical and electronics industry regarding improved compliance are increasing. The REACH Regulation of the EU has triggered an increase in the status of chemical substances contained in products; we are taking all the appropriate measures including submission of Non-Containing Declarations, submission of various data with IMDS, AIS, etc., and handling investigations and audits regarding our management systems.

Handling within the Group

We conduct non-containment management for products and control the use of certain substances of environmental concern in our plants.

■ Soundly managing chemical to comply with the international regulations of different countries

To satisfy customer requests and regulation such as the ELV Directive, RoHS Directive and REACH Regulation of the EU, we assign hazard ranks to substances of environmental concern. With handling standards for each rank, we carefully manage non-containment and reduce their use.



Hazard Rank

Hazard rank	Handling standard	Substances covered
Prohibited substances	Use is prohibited.	Substances prohibited from use or strongly restricted by regulations.
Restricted substances	Safer substitutes will be sought, while making efforts to reduce the use of current substances.	Hazard level and toxicity are equivalent to prohibited substances, but an immediate changeover is impossible due to its special characteristics.
Monitored substances	Supplies need to be examined to find existence/non-existence of applicable substances.	Those not prohibited or restricted but that require monitoring.

Voice of Our Controls Organizer

We strive for thorough management of chemical substances

Amidst progressing globalization, requests from customers relating to regulation of substances of environmental concern are increasing every year.

In order to provide customers with even safer products, we strive for thorough management of the chemical substances in all the products we handle and compliance with laws and regulations in partnership with the Environment and Safety Management Dept.



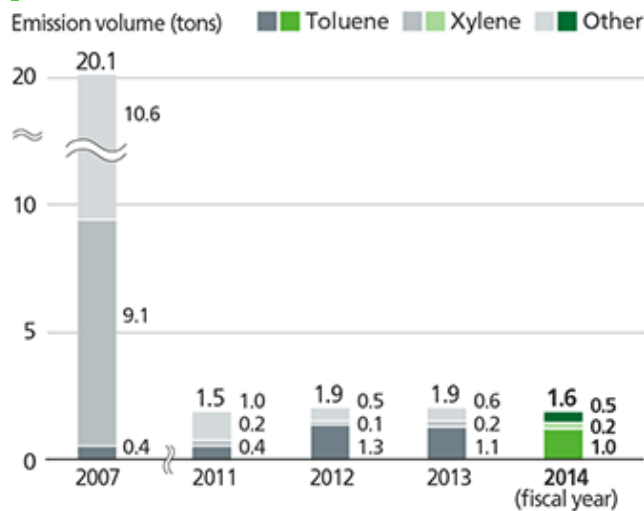
Electronic Component
Engineering Dept.

Masanori Nishi

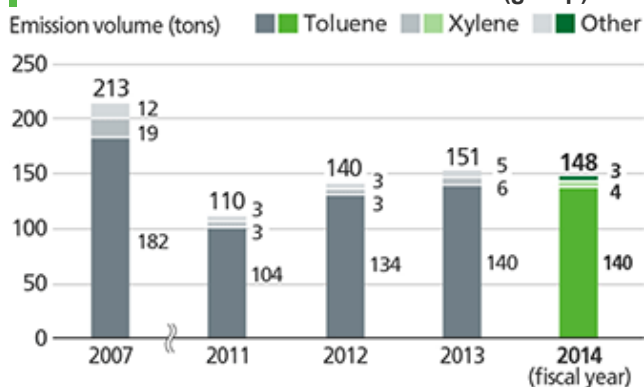
Managing use in plants

Our plants aim to reduce emissions of PRTR substances. Eco Vision 2015 aims for emission reduction of 80% from 2007 (43 tons or less).

Emission Volume of PRTR Substances (non-consolidated)



Emission Volumes of PRTR Substances (group)



▶ PRTR data for Each Business Site [38KB] [PDF](#)

Procurement from Suppliers

To manage chemical substances contained in products appropriately, it is imperative that we gain the cooperation of our suppliers. For this reason, we request in our Green Procurement Guidelines that our suppliers not use substances of environmental concern banned by NGK SPARK PLUG.

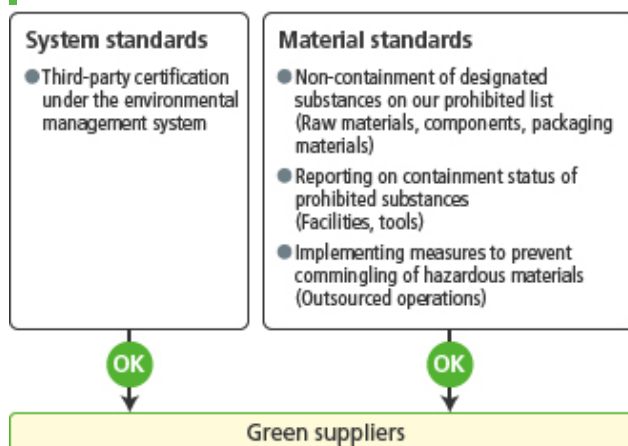


Green Procurement Guidelines
(Japanese Only)

The green supplier system

Under this system, we designate suppliers who meet our system and material standards as Green Suppliers and given them priority in our order placements.

Certification standards



Global Warming

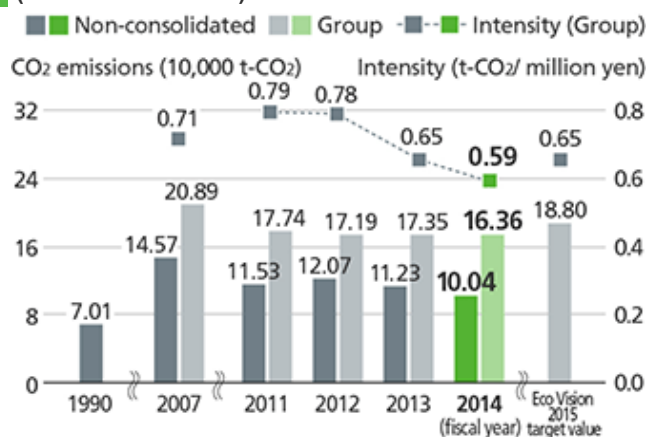
Basic Philosophy

Major climate change could hinder the establishment of a sustainable society. To contribute to the alleviation of climate change, Eco Vision 2015 sets CO₂ emission reduction targets for long-term efforts led by the Energy Conservation Promotion Office.

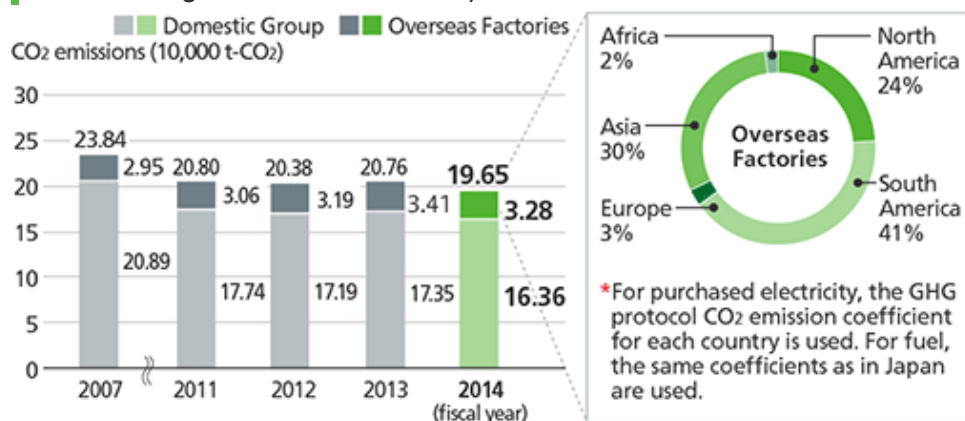
Meeting Our Target for Reducing CO₂ Emissions

In fiscal 2014, our CO₂ emissions was 163,600 tons, meeting our fiscal 2014 target of 175,000 tons and also lower than in fiscal 2013. In addition, intensity of emissions improved by 17% compared with fiscal 2007. The target was attained through energy transformation in the manufacturing process, updating of facilities (for energy efficiency), achieving an energy-savings effect by revising our manufacturing conditions, and transferring processes to affiliated companies.

Transition of Emission Volume of Energy-Origin CO₂ (Offices and Plants)



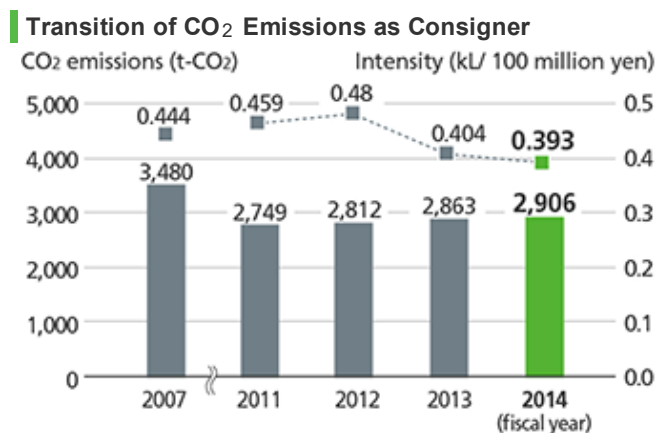
Trend in CO₂ Emissions (Group companies in Japan and overseas manufacturing and sales subsidiaries)



Energy Conservation during Transportation

As a Specified Consigner designated under the Act on the Rational Use of Energy, we endeavor to reduce CO₂ emissions during transportation. In fiscal 2014, our energy use intensity was 0.393 kL/100 million yen, which fell below the target of 0.413 kL/100 million yen.

This is attributable to measures by transportation departments to save fuel by reducing packaging weight through improving packaging materials and using appropriate trucks for the weight of the load.



※Includes portion outsourced to freight carriers

Energy Conservation in the Office

We implement daily energy-saving measures in our workplaces, including turning off lights and computers during breaks and keeping office air conditioning at moderate levels, 28°C in summer and 20°C in winter, to which we adjust by dressing lightly or adding layers of clothing.

We are also creating green curtains, installing arched sunshades and thermally insulating the outdoor units of air conditioners to reduce power consumption for air conditioning in the summer.

In fiscal 2014, we worked to combine PC servers, update air conditioners, and convert lighting to LED.

Use of Natural Energy

We promote the use of natural energy.

We installed three solar power generation units and one solar water heater at our Headquarters Factory. The Komaki Plant has a large-scale solar power generator unit that can generate a maximum of 107 kW of electricity, and small hydro-electric power equipment. In fiscal 2013, we generated a total of 190,000 kWh, equivalent to a reduction of 62 tons of CO₂.

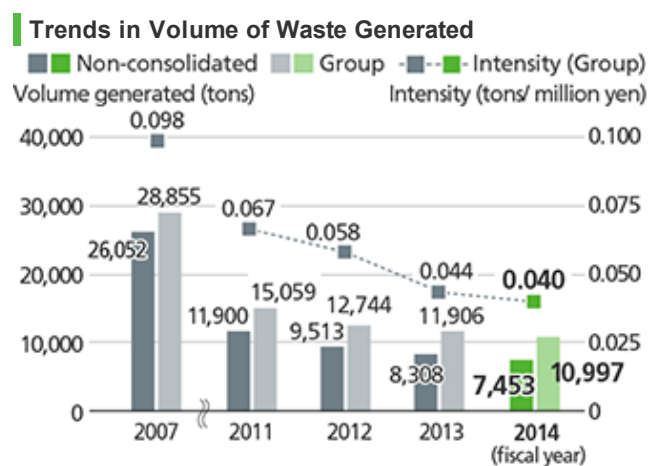
Waste

Basic Philosophy

The NGK SPARK PLUG Group works to reduce the volume of waste generated, and to recycle what is generated.

Trends in Waste Generated

In fiscal 2014, the waste intensity was 0.040 tons/million yen. By reducing the amount of ceramic sludge produced in our manufacturing process and increasing manufacturing process yield, we have lowered the waste intensity 55% compared with the fiscal 2007 level.



► Volumes of Waste Generated at Each Business Site [25KB] [PDF](#)

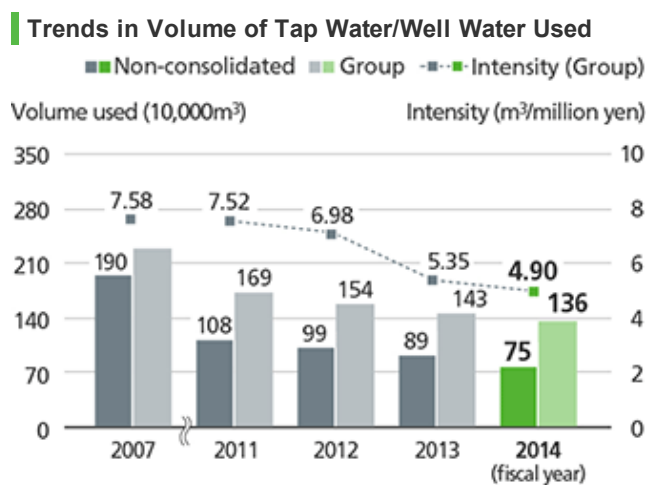
Water Resource

Basic Philosophy

The NGK SPARK PLUG Group recognizes that water is an important resource, and is making efforts to reduce the volume of tap water and well water used in our business activities.

Reducing the Amounts of Tap and Well Water Used

In fiscal 2014, the water use intensity was 4.90 m³/million yen. Water use intensity improved by 35% compared with fiscal 2007 due to conserving water by changing manufacturing conditions and upgrading and updating to equipment with a high water-savings effect.



Environmental Communication



Performance — Workplace CSR Activities

Establishing System for Environmental Commendations

We have launched a system of environmental commendations for the NGK SPARK PLUG Group in Japan to commend outstanding environmental initiatives with the aim of encouraging environmental activities. The best examples from improvements implemented in each area are selected to receive commendations from the President at the Central Environment Committee. In fiscal 2014, which was the first year of the system, the four examples below received commendations.



Greening of area around Miyanojo Plant

Area	Department	Details
Komaki Plant	Sensor Production Engineering Dept.	Increased batch size in combustion furnaces
Komaki Plant	Production Support Engineering Dept.	Response to Revised Water Pollution Control Act
Miyanojo Plant	Entire plant	Outstanding Green Factory (Minister of Economy, Trade and Industry Award)
NTK Ceramic Co., Ltd.	Management Dept.	Integrated management of firing production plans across entire plant

Voice of Our Maintenance and Management Department



Environment Group

Miyanojo Nittoku Alpha Service Co., Ltd.

We will continue to promote creation of an environment that coexists with the community

The Kagoshima Miyanojo Plant, where an integrated production system for spark plugs has been established, produces the largest number of plugs for a single plant in the world.

Up to now, we have been promoting the beautification and greening of the environment in addition to carrying out diverse initiatives over many years. These include measures to tackle noise using plantings, development of a ground with natural turf which is provided to local high school rugby teams for matches and training camps, and the establishment of cherry trees and a promenade on the south side of the plant, which promotes health for employees who are encouraged to walk.

The hopes involved in each of these individual activities have led to the receipt of this award, and we take pride in being the department involved in the maintenance and management.

Basic Philosophy

For The NGK SPARK PLUG Group to continue its business operations, it is essential to improve our coordination with local communities and build trust with society. We feel that the best way to build this trust is to provide information on the Group's environmental activities, and we are endeavoring to disclose information in an accurate and easy-to-understand way to improve communication.

Observing Environmental Activities

We accept plant tours for observation of our environmental efforts and facilities. A deeper understanding of our Group's activities and better communication are achieved by seeing our facilities firsthand and engaging in question and answer sessions. In fiscal 2013, we held nine tours and welcomed 301 visitors at our plants.

In fiscal 2014, we held seven tours and welcomed 756 visitors at our plants.

Environmental Meeting

We host environmental meetings with local residents as a venue for communication. At these meetings, we explain our daily environmental activities as well as hear opinions and comments from participants on how we can improve things. In fiscal 2013, we hosted seven such meetings, with a total of 18 participants.

In fiscal 2014, we hosted eight such meetings, with a total of 21 participants.

Local Clean-up Activities

We regularly hold clean-up activities to preserve the local environment. We also continue to participate in beautifying activities hosted by local municipalities, etc. In fiscal 2013, a total of 908 people participated in such activities.

In fiscal 2014, a total of 808 people participated in such activities.



Clean-up activity (Headquarters Plant)



Clean-up activity (Ise Plant)

▶ Participation in clean-up activities by each business site [20KB] [PDF](#)

Conservation of Biodiversity

The preservation of biodiversity is becoming increasingly important around the world. For the NGK SPARK PLUG Group as well, it is one of our environmental themes as important as the recycling of resources and global warming control. In April 2013, we published the Biodiversity Action Guidelines, which indicate our policy and action plan regarding biodiversity. The Guidelines have been drawn up to contribute to preserving biodiversity through environmentally responsible actions, including conserving energy and resources and reducing the output of environmental burdens throughout the product lifecycle, in consideration of the possible impact of our business activities on biodiversity.

Based on these Guidelines, we are continuing to carry out environmental activities to save energy and natural resources, conscious of their connection to preserving biodiversity.



Biodiversity Action Guidelines
(Japanese Only)

Third-Party Review

Third-Party Review



Mr. Tomohiro Tokura
Verification Specialist
Sustainability Service Division
SGS Japan Inc.

The Message from the President referred to the status of initiatives on the most important organizational issues for the direction of the organization as a whole such as the enhancing and restructuring of business and the establishment of new business ventures. The direction of business is of great interest to all stakeholders, and it is commendable that it was explained by the President himself. I heard in the interview that the progress on these issues is reported in shareholder communications and through other means whenever necessary. I think it would be good if consideration were given to the timely provision of information to all stakeholders, such as mentioning shareholder communications in the CSR Report. In addition, I can also commend the fact that the Message from the President reported that NGK SPARK PLUG was found in violation of competition and anti-trust laws in the United States and South Korea and pledged to prevent future reoccurrences as an indication that the Company is addressing the issue as an organization and fulfilling the duty of accountability. The explanation of the incidents in the main body of the report, the introduction of online links, and further efforts to provide information are commendable as signs of actions aimed at enhancing transparency.

The position of CSR is expressed systematically in an easy-to-understand manner using the diagram in Our CSR. The ten CSR policies for each of the ISO 26000 core issues are reported in connection to the Code of Conduct and the Corporate Philosophy. Consequently, the integration between the strategic direction of the organization (Corporate Philosophy) and CSR is communicated well. The flow of CSR promotion, which is implemented by various expert committees and working groups under the CSR Committee is also clear, and this report has made the organization's action in relation to CSR more concrete by disclosing the ten initiative areas and 30 objectives in our sixth medium-term management plan. The vow to prevent recurrence and the strengthening of the compliance system was also reported in the Message from the President as prevention of reoccurrence for the violations of anti-trust laws. I look forward to the reflection of targets related to these activities and the achievements in the next report.

As was also touched on in Our Business Activities, the activities of the NGK SPARK PLUG Group extend worldwide, and the responsibilities to society of the Group as a whole are also wide-ranging. I think that the coverage of the efforts of overseas Group companies everywhere in the report, including the introduction to CSR activities in Thailand in the Special Feature, is making the report commensurate with the size of the organization. However, I feel that the current reporting is still fragmentary. I will be continually looking forward to more reporting on activities overseas in the future, such as the creation of integrated global reporting indicators centered on the ten initiative areas and 30 objectives in the management plan first followed by disclosure of information based on the indicators, although this will be a challenging initiative.

Reporting on the environment is extremely comprehensive, presents diverse information, including topics, numerical data, and graphs, and it is also easy to understand the history. In particular, the provision of support for suppliers to create EMSs is commendable as one answer to solving environmental issues in the product lifecycle. On the other hand, I feel that there is insufficient presentation of data to support reporting on issues other than the environment. While there is some data, such as the disclosure of the number of inquiries to the corporate ethics hotline, the overall focus is on topics. There is also some information for which the scope of the information (head office only, entire group in Japan, entire organization including overseas group companies) disclosed is unclear. I think it would be good for consideration to be given to supplementing information with data as much as possible and stating the boundaries for data to disseminate accurate information. In recent years, there are many items seeking verification of environmental data in questionnaires such as those for CDP and the Dow Jones Sustainability Index. This means that many investors are seeking third-party verification relating to the accuracy of reporting data. I expect that global corporations such as the NGK SPARK PLUG Group will publish data externally after receiving third-party verification in the future as demands from investors in particular intensify.

* This comment does not express any conclusion judging whether or not the report presents data that is accurately measured and calculated and free from omissions in accordance with the standards for the preparation of environmental and other reports generally deemed to be fair and reasonable.

On Receiving the Third-Party Review

I would like to express my gratitude to Mr. Tokura for his assessment of our CSR Report 2015 and his valuable feedback. This is the third time that Mr. Tokura has provided the third-party review for us starting in 2013.

We put together the CSR Report with the desire of making all of our various stakeholders familiar with the NGK SPARK PLUG Group's CSR activities. In our CSR Report 2015, we highlighted specific new products and businesses and projects to create new businesses in the 2nd SHINKA (Renovating) of NITTOKU SHINKARON (The Evolution of NGK SPARK PLUG).

In addition, we have featured the areas that we consider to be of particular importance to the achievements of our CSR activities as Good Performance on each subject of the digest version. Going forward, we will continue to disclose areas that are of great interest to all stakeholders in ways that are approachable and easy to understand.

Meanwhile, with regard to the enhancement of information based on data for social and economic areas other than the environment which was pointed out by Mr. Tokura, we will seek to create globally integrated reporting indicators centered around our CSR Policy and medium-term CSR goals while continuing to make improvements.

In addition, Mr. Tokura pointed out the need for objective assessment, including third-party verification of data disclosed, because of increasing calls for the accuracy of data, including from investors. We accept that this is also a challenge and would like to address it in stages.

Sincerely responding to the review we have received, we will continue to further promote our CSR activities while striving for fair information disclosure aimed at highly transparent management so that NGK SPARK PLUG continues to be a company that is familiar to and loved by people worldwide.

Masaya Futamura
General Manager, CSR Promotion Office
NGK SPARK PLUG CO., LTD.

Environmental Action Plan

Fiscal 2014 Targets and Results

Evaluation standards ○ : achieved × : Not achieved

	Item	Fiscal 2014 Target	Fiscal 2014 Results	Evaluation	Fiscal 2015 Target
Environmental Management	Promotion of globally united actions	Drawing up a framework of Global Eco Vision	Established system and approach for Global Eco Vision and proposed it to the fiscal 2014 2H Central Environment Committee	○	Formulating Global Eco Vision
	Promotion of environmental activities relating to corporate management	Application method examination of material flow cost accounting	Decided not to apply MFCA as result of verifying it in model processes and considered using alternative method of visualizing costs	○	Visualizing energy and waste costs and creating mechanisms to promote efforts for reduction
Business Activities	Reduction of CO ₂ emissions	Emissions: 175,115 tons Intensity: 0.650 tons/million yen Strengthen initiatives to reduce upstream	Emissions: 163,648 tons Intensity: 0.588 tons/million yen	○	Emissions: down 10% from FY2007 Intensity: down 8% from FY2007
	Reduction of disposal of wastes and valuable materials	Intensity: 0.039 tons/million yen (down 10% from previous fiscal year)	Intensity: 0.0395 tons/million yen	×	Intensity: down 30% from FY2007
	Reduction of water use	Intensity: 4.863m ³ /million yen (down 10% from previous fiscal year)	Intensity: 4.903m ³ /million yen	×	Intensity: down 8% from FY2007
	Reduction in PRTR emissions	Reexamination of recycling equipment	Reexamined equipment, but did not introduce equipment	×	Emissions: down 80% from FY2007
	Development of environmentally friendly products	Construction of development system which takes LCA into consideration when designing products	Reviewed standards for implementation of product assessments and included LCA approach into checklist for product development	○	Expansion of LCA to all the company's operation sites
	Enhancement of the management of chemical materials	Enhancement of management system on chemical materials when designing products	Did not establish methods for investigating substances contained in purchased supplies	×	Creation of a management system on chemical materials including supply chains
	Promotion of green procurement	—	—	—	Expansion of green supplier system
	Recycling of post-consumer products	Examination of products recycling technology	Product recycling technologies were not examined	×	Establishment of recycling technology for products and packaging materials
		Implementation of package materials reuse	There were no noticeable results	×	
	Reduction of CO ₂ emissions in physical distribution	Intensity: 0.413 kL /100 million yen (down 7% from 2007)	0.393KL/hundred million yen	○	Domestic distribution energy per unit production: down 8% from FY2007
	Environmentally friendly sales activities	Planning environmentally friendly sales strategies	Conducted sales promotion for environmentally-friendly products	○	Promotion of environmentally-friendly sales activities
		Enrichment of PR relating to environmental efficiency of products	Conducted PR for environmentally-friendly products at expos and in catalogues	○	
Social Cooperation	Improvement of disclosing information	Disclosure compliance state in overseas plants	Disclosed status of legal compliance at overseas plants in CSR Report	○	Improvement of disclosing global environmental information
		Disclosure of global material balance	Disclosed CO ₂ emissions, including overseas plants, in CSR Report	○	
		Disclosure of CO ₂ , waste and water reduction cases in overseas plants	There was no disclosure of reduction cases in overseas plants	×	
	Enhancement of communication	Continual implementation of the environmental conferences	Implemented sales promotion for environmentally-friendly products	○	Enhancement of communication with communities
		Acceptance of visitors to factories by stakeholders	Conducted PR for environmentally-friendly products at expos and in catalogues	○	
		Continual participation in EPOC international exchange subcommittee meetings	Continual participation in EPOC international exchange subcommittee meetings	○	
	Enhancement of social contribution	- Continual implementation of the clean-up activities - Enhancement of beautification activities around factories - Participation in a variety of environmental activities	Held periodic clean ups around plants	○	Enhancement of social contribution to communities
	Enhancement of activities for biodiversity preservation	Participate in activities for biodiversity preservation	Participated in Miyagawa basin conservation activities, etc.	○	Enhancement of biodiversity preservation activities
	Enhancement of environmental consciousness	Enhancement of level-specific training in the domestic groups	Continual implementation of environmental education	○	Enhancement of environmental education
		Establishment of system which implements environmental education for employees transferred to overseas subsidiaries	Did not formulate mechanism for providing environmental education for employees seconded overseas	×	

Conditions for the Establishment of a System

ISO 14001 Certified Locations

Certification covering multiple units

Country	Name of factories and companies		Certified initially in:	Certification organization
Japan	NGK SPARK PLUG CO., LTD.	Headquarters and Nagoya Plant	'99. 8	JQA
		Komaki Plant, Miyanojo Plant, Ise Plant	'00. 12	
		Takenami Plant	'07. 1	
	Nittoku Alfa Service Co., Ltd.		'99. 8	
	Nittoku Unyu Co., Ltd.		'00. 12	
	Ceramic Sensor Co., Ltd.		'00. 12	
	NTK Ceramic Co., Ltd.	Komaki Plant	'00. 12	
		Nakatsugawa Plant, Iijima Plant, Kani Plant	'02. 12	
	Nansei Ceramic Co., Ltd.		'02. 12	
	Kamioka Ceramic Co., Ltd.		'04. 1	
	Nittoku Seisakusho Co., Ltd.	Head Office Plant, Oguchi Plant	'04. 1	
		Satsuma Plant	'09. 12	
	Nichiwa Kiki Co., Ltd.		'04. 1	
	Nittoku Spark Tech Tono Co., Ltd.		'04. 1	
	Tokai Taima Kogu Co., Ltd.		'09. 1	

Certification obtained individually

Country	Name of factories and companies		Certified initially in:	Certification organization
U.S.A.	NGK Spark Plugs (U.S.A.), Inc.	WV Plant	'00. 7	TUV
Mexico	Bujias NGK de Mexico S.A. de C.V.		'12. 11	FS
Brazil	Ceramica e Velas de Ignicao NGK do Brazil Ltda.		'01. 12	ABS QE
France	NGK Spark Plugs (France) S.A.S		'00. 5	AFAQ
U.K.	NGK Spark Plugs (U.K.) Ltd.		'01. 12	BSI
Germany	NGK Spark Plug Europe GmbH		'04. 11	TUV
Thailand	Siam NGK Spark Plug Co., Ltd.		'02. 11	TUV NORD
	NGK Spark Plugs (Thailand) Co., Ltd.		'12. 10	SGS
South Korea	Woo Jin Industry Co., Ltd.		'05. 4	KFQ
	NTK Technical Ceramics Korea Co., Ltd.		'06. 4	ISC
Malaysia	NGK Spark Plugs Malaysia Berhad		'06. 3	SIRIM QAS
China	NGK Spark Plug (Shanghai) Co., Ltd.		'07. 4	SGS
	Changshu NGK Spark Plug Co., Ltd.		'14. 3	SGS
Indonesia	P.T. NGK Busi Indonesia		'07. 10	Bureau Veritas
India	NGK Spark Plugs (India) Pvt. Ltd.		'10. 12	ASR
South Africa	NGK Spark Plugs SA (Pty) Ltd.		'08. 4	Bureau Veritas

Compliance Status

Data on Air, Water Quality, Noise and Vibration

Name of factories and companies	Item	Type		Unit	Regulation value		Voluntary standard value	Average	MAX
					Low/Local regulation	Agreement with the city			
Takenami Plant	Noise	Morning	Fourth spot	dB	45~50	50	50	39.6	43.0
		Daytime	Fourth spot	dB	50~60	55	55	40.5	45.5
		Evening	Fourth spot	dB	45~50	50	50	40.3	45.0
		Night	Fourth spot	dB	40~50	45	45	39.4	42.5
	Vibration	Daytime	Fourth spot	dB	65	55	—	15.0	15.0
		Night	Fourth spot	dB	60	50	—	15.0	15.0
Miyanojo Plant	Air	Soot and dust	Chiller	mg/Nm3	300	—	240	—	—
			3T water boiler		100		80	<0.007	<0.007
		NOx	Chiller	ppm	180	—	144	—	—
			3T water boiler		150		120	69.0	69.0
	Drain (public water area)	pH		—	6.0~8.0	6.0~8.0	6.5~7.8	7.4	7.8
		SS		mg/l	35	35	28	4.9	7.0
		BOD		mg/l	20	20	16	5.6	7.6
		COD		mg/l	160	—	128	9.0	9.0
		n-hexane extract		mg/l	5	≤5	4	<1.2	<2.5
		Cyanogen		mg/l	1	—	0.8	<0.05	<0.05
		Hexavalent chromium		mg/l	0.5	—	0.4	<0.05	<0.05
		Copper		mg/l	3	—	2.4	<0.05	<0.05
		Zinc		mg/l	2	—	1.4	<0.05	<0.05
		Lead		mg/l	0.1	—	0.08	<0.01	<0.01
		Fluorine		mg/l	8	—	6.4	0.2	0.5
		Boron		mg/l	10	—	8	1.8	2.2
		Coli bacteria		counts/cm ³	3000	—	2400	0	0
	Noise	Morning	A spot	dB	60	—	55	42.0	42.7
			B spot					44.5	47.4
			C spot					46.2	47.8
			D spot					48.3	50.3
			E spot					44.6	47.0
			F spot					46.1	49.8
			G spot					46.2	50.2
		Daytime	A spot	dB	65	—	60	48.0	49.3
			B spot					47.9	48.8
			C spot					52.2	54.3
			D spot					52.0	53.6
			E spot					48.8	50.4
			F spot					52.4	54.3
			G spot					49.6	50.8
		Evening	A spot	dB	60	—	55	42.4	44.3
			B spot					44.5	47.9
			C spot					47.5	51.8
			D spot					47.9	50.1
			E spot					48.7	49.9
			F spot					48.6	51.2
			G spot					45.1	50.2
		Night	A spot	dB	50	—	50	41.7	43.5
			B spot					43.0	46.3
			C spot					46.2	47.3
			D spot					47.8	48.1
			E spot					44.9	47.0
			F spot					45.4	48.9
			G spot					44.2	46.3
	Vibration	Daytime		dB	60	—	52	31.3	40.0
		Night		dB	55	—	48	32.0	40.0

Compliance Status

Data on Air, Water Quality, Noise and Vibration

Name of factories and companies	Item	Type		Unit	Regulation value		Voluntary standard value	Average	MAX
					Low/Local regulation	Agreement with the city			
Ise Plant	Air	Soot and dust	Firing furnace	mg/Nm³	250	—	100	<5	<5
	Drain (public water area)	pH		—	—	—	—	—	—
		SS		mg/l	—	—	—	—	—
		BOD		mg/l	—	—	—	—	—
		COD		mg/l	160	—	128	4.5	8.0
		n-hexane extract		mg/l	—	—	—	—	—
		Phenols		mg/l	—	—	—	—	—
		Total chromium		mg/l	—	—	—	—	—
		Copper		mg/l	—	—	—	—	—
		Zinc		mg/l	—	—	—	—	—
		Iron		mg/l	—	—	—	—	—
		Lead		mg/l	0.1	—	0.08	<0.01	<0.01
		Nitrogen		mg/l	—	—	—	—	—
		Phosphorus		mg/l	—	—	—	—	—
		Manganese		mg/l	—	—	—	—	—
	Coli bacteria		counts/cm³	—	—	—	—	—	
	Noise	Morning	East	dB	55	—	55	43.4	43.4
		Daytime	East		60		58	47.6	47.6
		Evening	East		55		55	51.0	51.0
		Night	East		50		50	47.3	47.3
		Vibration	Daytime (all directions)		dB	65	—	60	<50
	Night (all directions)		60	55		<50		<50	
NTK Ceramic Co., Ltd. (Iijima Plant)	Air	Soot and dust	Firing furnace: YA-5, 6	mg/Nm³	250	—	250	<5	<5
			Firing furnace: YA-7, 8					<5	<5
			Absorption heater/chiller: FGL		100		<5	<5	
			Absorption heater/chiller: FGDL				<5	<5	
		NOx	Firing furnace: YA-5, 6	ppm	180	—	180	<10	<10
			Firing furnace: YA-7, 8					<10	<10
			Absorption heater/chiller: FGL		150		29.5	33.0	
			Absorption heater/chiller: FGDL				32.0	37.0	
	Drain (public water area)	pH		—	5.8~8.6	5.8~8.6	6.0~8.0	7.4	7.5
		SS		mg/l	50	50	—	2.38	8.0
		BOD		mg/l	30	30	25	1.47	4.3
		COD		mg/l	30	30	—	3.08	4.5
		n-hexane extract		mg/l	5	5	5	<1	<1
		Cyanogen		mg/l	0.5	0.5	0.2	<0.01	<0.01
		Copper		mg/l	2	2	2	0.03	0.03
		Zinc		mg/l	3	3	3	<0.05	<0.05
		Lead		mg/l	0.1	0.1	0.1	<0.05	<0.05
		Fluorine		mg/l	15	15	15	0.40	0.60
		Boron		mg/l	50	50	50	1.20	2.40
		Phenols		mg/l	5	5	5	<0.02	<0.02
		Ammonia		mg/l	500	500	500	6.0	10.0
		Coli bacteria		counts/cm³	3000	3000	3000	25.8	98
	Noise	Morning	First spot	dB	65	65	—	49.0	49.0
		Daytime	First spot	dB	65	65	—	48.0	48.0
		Evening	First spot	dB	65	65	—	48.0	48.0
		Night	First spot	dB	55	55	—	48.0	48.0
NTK Ceramic Co., Ltd. (Nakatsugawa Plant)	Air	Soot and dust	Firing furnace(NN-1)	mg/Nm³	50	50	20	6	6
		SOx	Firing furnace(NN-1)	Nm³/H	—	—	—	0	0
		Drain (public water area)	pH	Factory 1&2	—	5.8~8.6	5.8~8.6	6.2~8.6	7.6
	Factory 3			7.4					8.1
	SS		Factory 1&2	mg/l	50	50	35	3.2	8.0
			Factory 3					4.0	9.0
	BOD		Factory 1&2	mg/l	15	15	13	2.3	5.8
			Factory 3					3.1	6.2
	COD		Factory 1&2	mg/l	40	40	30	6.4	9.0
			Factory 3					10.2	22.0
	n-hexane extract		Factory 1&2	mg/l	5	5	4	<0.5	<0.5
			Factory 3					<0.5	<0.5
	Nitrogen		Factory 1&2	mg/l	10	10	—	6.9	9.4
			Factory 3					5.6	9.4
	Phosphorus		Factory 1&2	mg/l	3	3	2.5	0.10	0.31
			Factory 3					0.50	1.20
	Coli bacteria		Factory 1&2	counts/cm³	3000	3000	1000	124.4	270.0
		Factory 3	0.0					0.0	

Compliance Status

Data on Air, Water Quality, Noise and Vibration

Name of factories and companies	Item		Type	Unit	Regulation value		Voluntary standard value	Average	MAX
					Low/Local regulation	Agreement with the city			
NTK Ceramic Co., Ltd. (Nakatsugawa Plant)	Noise	Morning	First spot	dB	60	60	58	50.0	51.0
			Second spot					52.5	52.5
			Third spot					53.3	54.0
			Fourth spot					49.8	51.0
		Daytime	First spot		65	65	63	50.5	53.0
			Second spot					51.3	51.5
			Third spot					51.0	52.0
			Fourth spot					50.0	51.0
		Evening	First spot		60	60	58	50.0	52.0
			Second spot					50.5	52.0
			Third spot					49.8	52.0
			Fourth spot					51.3	52.5
		Night	First spot		50	50	50	48.8	49.5
			Second spot					46.8	47.0
			Third spot					47.5	48.0
			Fourth spot					44.8	45.5
		Daytime	Fourth spot	dB	65	—	63	35.0	35.0
		Night	Fourth spot		60		58	28.0	28.0
NTK Ceramic Co., Ltd. (Kani Plant)	Air	Soot and dust		mg/Nm³	100	—	90	3	3
		NOx		ppm	150		135	5	5
	Drain (sewer)	pH		—	5.8~8.6	—	5.9~8.5	7.1	7.1
		SS		mg/l	200	—	180	2.0	2.0
		BOD		mg/l	160	—	144	3.2	3.2
		COD		mg/l	160	—	30	3.3	3.3
		n-hexane extract		mg/l	5	—	4.5	1.0	1.0
	Noise	Morning	First spot	dB	50	—	50	48.0	48.0
		Daytime	First spot		60		60	49.0	49.0
		Evening	First spot		50		50	49.0	49.0
		Night	First spot		45		45	45.0	45.0
Nansei Ceramic Co., Ltd.	Drain (public water area)	pH		—	—	—	—		
		SS		mg/l	—	—	—		
		BOD			—	—	—		
		COD			—	—	—		
		n-hexane extract			—	—	—		
		Lead			—	—	—		
		Nitrogen			—	—	—		
		Phosphorus			—	—	—		
	Coli bacteria		counts/cm³	—	—	—			
	Noise	Morning	East	dB	55	—	55	43.4	43.4
		Daytime	East		60		58	47.6	47.6
		Evening	East		55		55	51.0	51.0
		Night	East		50		50	47.3	47.3
Kamioka Ceramic Co., Ltd.	Drain (public water area)	pH	①	—	5.8~8.6	—	6.2~8.2	7.7	7.9
			②					7.6	7.6
			③					7.6	7.6
		SS	①	mg/l	200	—	50	2.5	4.0
			②					15.0	25.0
			③					19.0	20.0
		BOD	①	mg/l	160	—	40	1.0	1.6
			②					21.0	39.0
			③					33.0	38.0
		COD	①	mg/l	160	—	40	2.0	2.9
			②					17.0	23.0
			③					36.0	39.0
		n-hexane extract	①	mg/l	5	—	2.5	<0.5	<0.5
			②					1.0	1.5
			③					0.8	1.1
		Coli bacteria	①	counts/cm³	3000	—	300	<30	<30
			②					55	80
			③					36	42
	Noise	Morning	Fourth spot	dB	60	—	60	41.0	41.0
		Daytime	Fourth spot		65		65	42.0	42.0
		Evening	Fourth spot		60		60	42.0	42.0
		Night	Fourth spot		50		50	42.0	42.0

Compliance Status

Data on Air, Water Quality, Noise and Vibration

Name of factories and companies	Item	Type		Unit	Regulation value		Voluntary standard value	Average	MAX
					Low/Local regulation	Agreement with the city			
Nittoku Seisakusho Co., Ltd. (Head Office Plant)	Drain (sewer)	pH	① Office building	—	More than 5.0	—	5.8~9.0	7.7	7.7
			② Head factory					7.5	7.5
			③ West factory					7.2	7.2
		SS	① Office building	mg/l	—	—	600	1.0	1.0
			② Head factory					180	180
			③ West factory					18.0	18.0
		BOD	① Office building	mg/l	—	—	600	3	3
			② Head factory					140	140
			③ West factory					49.0	49.0
		n-hexane extract	① Office building	mg/l	50	—	50	—	—
			② Head factory					5.4	5.4
			③ West factory					<0.5	<0.5
	Noise	Morning	Second spot	dB	60	—	60	62	64
		Daytime	Second spot	dB	65	—	65	61	62
		Evening	Second spot	dB	60	—	60	60	62
	Vibration	Evening	Second spot	dB	65	—	65	60	61
		Night	Second spot	dB	60	—	60	61	62
Nittoku Seisakusho Co., Ltd. (Oguchi Plant)	Drain (public water area)	pH	Oguchi ①	—	5.8~8.6	—	5.8~8.6	7.4	7.4
			Oguchi ②					7.1	7.1
		SS	Oguchi ①	mg/l	—	—	200	4.4	4.4
			Oguchi ②					9.4	9.4
		BOD	Oguchi ①	mg/l	—	—	160	4.1	4.1
			Oguchi ②					6.9	6.9
		n-hexane extract	Oguchi ①	mg/l	5	—	5	<1	<1
			Oguchi ②					<1	<1
	Noise	Morning	First spot	dB	55	55	55	55	55
			Second spot					51	51
			Third spot					51	51
			Fourth spot					50	50
			Fifth spot					51	51
			Sixth spot					52	52
		Daytime	First spot	dB	60	60	60	56	56
			Second spot					54	54
			Third spot					58	58
			Fourth spot					53	53
			Fifth spot					55	55
			Sixth spot					52	52
		Evening	First spot	dB	55	55	55	53	53
			Second spot					52	52
			Third spot					52	52
			Fourth spot					48	48
			Fifth spot					53	53
			Sixth spot					53	53
		Night	First spot	dB	50	50	50	50	50
			Second spot					49	49
			Third spot					49	49
			Fourth spot					48	48
			Fifth spot					50	50
			Sixth spot					49	49
	Vibration	Daytime	First spot	dB	65	60	60	49	49
		Night	First spot		60	55	55	51	51
Nittoku Seisakusho Co., Ltd. (Satsuma Plant)	Drain (public water area)	pH		—	—	—	—	8.3	8.3
		SS		mg/l	—	—	—	4	4
		BOD		mg/l	—	—	—	4	4
		n-hexane extract		mg/l	—	—	—	2.5	2.5
		Coliform bacteria count		counts/cm ³	—	—	—	20	20
	Noise	Morning	First spot	dB	50	—	50	65	65
		Daytime	First spot	dB	60	—	50	65	65
		Evening	First spot	dB	50	—	50	65	65
		Night	First spot	dB	45	—	45	45	45
	Vibration	Daytime	First spot	dB	60	—	60	45	45
		Night	First spot	dB	55	—	55	47	47

Compliance Status

Data on Air, Water Quality, Noise and Vibration

Name of factories and companies	Item	Type		Unit	Regulation value		Voluntary standard value	Average	MAX
					Low/Local regulation	Agreement with the city			
Nichiwa Kiki Co., Ltd.	Drain (sewer)	pH		—	More than 5.0	—	6.0~8.0	7.1	7.2
		n-hexane extract		mg/l	50	—	40	2.25	4.0
	Noise	Daytime		dB	65	—	63	61.2	61.2
Nittoku Spark Tech Tono Co., Ltd.	Air	Soot and dust		mg/Nm ³	—	—	200	13.0	16.0
		NOx		ppm	—	—	400	38.5	39.0
	Drain (public water area)	pH		—	—	—	5.8~8.6	7.2	7.2
		SS		mg/l	—	—	200	less than 1	less than 1
		BOD		mg/l	—	—	160	1.3	1.3
		n-hexane extract		mg/l	—	—	5	less than 0.5	less than 0.5
	Noise	Morning		dB	50	—	50	43.9	47.6
		Daytime		dB	60	—	60	50.9	56.2
		Evening		dB	50	—	50	45.4	48.3
		Night		dB	45	—	45	43.2	44.2
Ceramic Sensor Co., Ltd.	Air	Soot and dust		mg/Nm ³	200	200	200	0	0
		NOx		ppm	—	—	—	68.3	87.0
	Drain (public water area)	pH		—	5.8~8.6	6.0~8.0	6.0~8.0	7.2	8.3
		SS		mg/l	150	18	18	1.1	3.0
		BOD		mg/l	120	18	18	1.7	6.0
		COD		mg/l	120	18	18	5.1	11.0
		n-hexane extract		mg/l	5	2	2	1.0	1.0
		Nitrogen		mg/l	60	30	30	3.9	47.2
		Phosphorus		mg/l	8	—	4	0.2	6.8
		Fluorine		mg/l	8	—	8	1.4	2.7
		Boron		mg/l	10	—	10	1.4	2.7
	Noise	Daytime	First spot	dB	75	70	70	55.6	58.6
			Second spot					57.2	58.3
			Third spot					58.9	61.6
			Fourth spot					53.2	54.9
			Fifth spot					51.5	55.4
			Sixth spot					51.2	54.1
			Seventh spot					57.6	59.8
		Night	First spot	dB	70	60	60	53.5	56.1
			Second spot					55.9	58.1
			Third spot					57.1	59.5
			Fourth spot					52.4	53.8
			Fifth spot					49.4	51.9
			Sixth spot					49.7	52.3
			Seventh spot					56.1	58.5
Tokai Taima Kogu Co., Ltd.	Noise	Morning	east	dB	75	—	60	43.1	43.1
		Daytime	east		75		65	45.1	45.1
		Evening	east		75		60	45.1	45.1
		Night	east		70		50	42.5	42.5
	Vibration	Daytime	east	dB	75	—	65	48.0	48.0
		Night	east		70		60	48.0	48.0

Environmental Accounting

Environmental Conservation Costs

(Unit: million yen)

Items			Non-consolidated				NGK SPARK PLUG Group*			
Classification		Major efforts	Investment		Expense		Investment		Expense	
			2013	2014	2013	2014	2013	2014	2013	2014
Costs within the business area	Pollution prevention cost	Air/water pollution prevention and noise reduction	13	14	387	305	38	46	767	774
	Global environmental conservation cost	Global warming prevention, energy conservation	63	50	408	303	110	77	491	352
	Resource circulation cost	Effective resource utilization, industrial waste treatment/disposal	14	5	194	207	27	114	384	388
Sub-total			91	69	989	815	175	237	1,643	1,513
Upstream & downstream cost		Employee environmental education, EMS construction and operation	0	0	0	0	0	1	1	16
Management activity cost		Employee environmental education, EMS construction and operation	21	4	346	451	23	14	433	516
R&D cost		R&D of products promoting environment preservation	1,181	1,236	8,030	8,680	1,181	1,236	8,031	8,680
Social activity cost		Nature protection, afforestation, environmental ads	0	0	211	295	0	1	216	302
Environment damage correction cost		Repair of soil contamination, disrupted nature	0	0	7	10	0	0	8	10
Other costs		—	0	0	0	0	0	0	0	0
Total			1,293	1,310	9,584	10,250	1,379	1,490	10,332	11,037

Any inconsistency between an aggregate of all itemized figures and a "Total" figure is due to rounding of fractions.

* Excluding Nittoku Alpha Service Co., Ltd.

Economic Benefits Associated with Environmental Conservation Activities

(Unit: million yen)

Area of recognized effect		2013	2014
Revenue	Revenue generated from the recycling of waste generated in operations or used products	185	187
Cost saving	Energy cost saving achieved from energy conservation efforts	65	45
	Reduction of water expenses through water saving	2	0.40
	Waste disposal cost saving achieved by resource conservation and recycling efforts	1	3
Total		253	235

Quantity of Environmental Conservation Benefits

Classification			Non-consolidated			NGK SPARK PLUG Group		
Effect measured in the business area	Types of effect		2013	2014	Difference from the previous fiscal year	2013	2014	Difference from the previous fiscal year
Effect measured with respect to resource input into operations	Energy consumption	Purchased electricity (GWh)	21,358	19,611	-1,747	34,399	33,200	-1,199
		Gas (million m ³)	1,144	921	-223	1,321	1,134	-187
		LPG (million m ³)	366	3,514	-150	819	7,812	-378
	Water consumption	Tap water (m ³)	521,041	402,204	-118,836	727,203	670,395	-56,808
		Well water (m ³)	372,238	349,423	-22,815	703,847	693,320	-10,527
	Quantity of PRTR law-regulated substances handled (tons)		643	653	10	911	939	29
Effect measured with respect to environmental load and waste from business activities	CO ₂ emission from energy consumption (tons)		112,542	100,402	-12,140	173,776	163,648	-10,128
	Waste	Effectively utilized mass (tons)	8,216	7,345	-871	11,758	10,793	-965
		Buried, incineration (tons)	92	109	17	148	204	31
	PRTR law-regulated substances released into air and water (tons)		1.9	1.6	0	151	148	-4

Hazardous Substances

PRTR data for Each Business Site

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

(kg)

Name of factories and companies	Cabinet order No.	Name of chemical substance	Quantity handled	Quantity released			Quantity transferred			Quantity processed		Quantity taken out
				Air	Public water area	Soil	Public sewer	Buried and incineration	Effective use	Incineration on the premises	Disassociation reaction	Product/Sold
Headquarters and Nagoya Plant	53	Ethylbenzene	5,444	0							5,443	
	80	Xylene	23,351	1							23,350	
	87	Chromium and chromium (III) compounds	16,455				1	1	373			16,080
	144	Inorganic cyanide compounds (except complex salts and cyanates)	1,195				11				1,183	
	296	1,2,4-trimethylbenzene	7,110	1							7,109	
	297	1,3,5-trimethylbenzene	3,270								3,270	
	300	Toluene	71,164	12							71,152	
	308	Nickel	99,147						41			99,106
	392	n-hexane	4,057	1							4,056	
	400	Benzene	2,496	1							2,495	
	405	Boron compounds	1,908					2	255			1,651
	412	manganese and its compounds	1,046						17			1,030
Komaki Plant * Including NTK ceramic (Komaki Plant)	53	Ethylbenzene	2,915	65					671		2,179	
	80	Xylene	13,819	176					3,778		9,864	
	87	Chromium and chromium (III) compounds	3,687					0	842		0	2,844
	132	Cobalt and its compounds	1,988	0				1	15			1,972
	144	Inorganic cyanide compounds (except complex salts and cyanates)	3,206						518		1,693	995
	297	1,3,5-Trimethylbenzene	1,278	2					2		1,275	
	300	Toluene	30,882	212					4		30,667	
	308	Nickel	29,352					5	449			28,898
	309	Nickel compounds	697		61				220		416	
	400	Benzene	693.0	0.1							692.9	
	405	Boron compounds	36,815		186			16	1,118		43	35,452
	407	poly (oxyethylene) alkyl ether (alkyl C=12-15)										
Miyanojo Plant	412	Manganese and its compounds	1,412		4			0	1,033		1	374
	87	Chromium and chromium (III) compounds	30,022						1,657			28,365
	144	Inorganic cyanide compounds (except complex salts and cyanates)	2,425								2,425	
	308	Nickel	194,491									194,491
	405	Boron compounds	6,185		132				77			5,976
Ise Plant	412	manganese and its compounds	1,934									1,934
	305	Lead compounds	52,895						6,096			46,799
Takenami Plant	300	Toluene	1,071	733					44		294	
	309	Nickel compounds	749						170			579
Subtotal			653,157	1,204	384		13	24	17,379		167,609	466,545
NTK Ceramic (Iijima Plant)	53	Ethylbenzene	4,680	1,505					3,175			
	80	Xylene	2,520	810					1,710			
	87	Chromium and chromium (III) compounds	5,316						845			4,471
	144	Inorganic cyanide compounds (except complex salts and cyanates)	3,384		0				1,834		911	640
	300	Toluene	73,370	73,370								
	308	Nickel	1,359									1,359
	309	Nickel compounds	1,207						1,207			
NTK Ceramic (Nakatsugawa Plant)	354	di-n-butyl phthalate	11,088						1,423		9,665	
	53	Ethylbenzene	1,439	514					842			82
	80	Xylene	8,153	2,911					4,774			467
	87	Chromium and chromium (III) compounds	4,435						2,337			2,098
	300	Toluene	68,212	65,931					2,281			228
	305	Lead compounds	533						305			7,790
	354	di-n-butyl phthalate	23,423						9,778		5,855	76
	355	bis (2-ethylhexyl) phthalate	1,493						1,342		76	3,086
NTK Ceramic (Kani Plant)	453	Molybdenum and its compounds	3,392						305			
	354	di-n-butyl phthalate	2,800						1,695			1,105
Nansei Ceramic	305	Lead compounds	32,973						3,957			29,016
	384	1-bromopropane	2,923	1,023					1,900			
Nittoku Seisakusho (Oguchi Plant)	308	Nickel	16,095									16,095
Ceramic Sensor	333	Hydrazine	13,937						12,322		1,614	1
	374	Hydrogen fluoride and its water-soluble salts	3,441						3,372		69	
Subtotal			286,172	146,064	0				55,403		18,190	66,514
Total			939,329	147,268	384		13	24	72,782		185,798	533,059

Waste

Volumes of Waste Generated at Each Business Site

The volume of waste generated in fiscal 2014 in the factories and the affiliated companies is listed in the table as follows.

Name of factories and companies		Volume of emissions (tons)	Volume effectively Recovery rate used (tons)	Volume of buried and incineration (tons)	Recovery rate (%)
NGK SPARK PLUG CO., LTD.	Headquarters and Nagoya Plant	653	634	19	97.1%
	Komaki Plant	3,168	3,097	71	97.8%
	Miyanojo Plant	3,444	3,428	16	99.5%
	Ise Plant	182	181	1.1	99.4%
	Takenami Plant	5.8	4.4	1.3	76.8%
Subtotal		7,453	7,345	109	98.5%
Affiliates	NTK Ceramic Co., Ltd. (Iijima Plant)	768	718	51	93.4%
	NTK Ceramic Co., Ltd. (Nakatsugawa Plant)	295	294	0.7	99.8%
	NTK Ceramic Co., Ltd. (Kani Plant)	61	61	0.3	99.6%
	NTK Ceramic Co., Ltd. (Komaki Plant)	600	584	16	97.4%
	Nansei Ceramic Co., Ltd.	8.6	8.6	0.0	100.0%
	Kamioka Ceramic Co., Ltd.	174	173	0.2	99.9%
	Nittoku Seisakusho Co., Ltd.	323	319	3.4	98.9%
	Nichiwa Kiki Co., Ltd.	5.4	5.4	0.0	99.2%
	Nittoku Spark Tech Tono Co., Ltd.	82	79	2.2	97.2%
	Ceramic Sensor Co., Ltd.	1,222	1,200	22	98.2%
	Tokai Taima Kogu Co., Ltd.	5.4	5.4	0.0	100.0%
	Nittoku Unyu Co., Ltd.	0.5	0.5	0.0	99.5%
	Subtotal	3,543	3,448	95	97.3%
Total		10,997	10,793	204	98.1%

Local Clean-up Activities

Clean-up Activities around our Business Sites

Name of factories and companies		Number of operations implemented (times)	Total number of participants (people)
NGK SPARK PLUG CO., LTD.	Headquarters and Nagoya plant	2	49
	Komaki Plant	4	148
	Miyanojo Plant	1	42
	Ise Plant	2	53
	Subtotal	9	292
Affiliates	NTK Ceramic Co., Ltd.	Iijima Plant	22
		Nakatsugawa Plant	17
		Kani Plant	25
		Komaki Plant	10
	Nansei Ceramic Co., Ltd.		4
	Kamioka Ceramic Co., Ltd.		39
	Nittoku Seisakusho Co., Ltd.	Head Office Plant	54
		Oguchi Plant	50
		Satsuma Plant	47
	Nichiwa Kiki Co., Ltd.		60
	Nittoku Spark Tech Tono Co., Ltd.		25
	Ceramic Sensor Co., Ltd.		76
	Tokai Taima Kogu Co., Ltd.		12
	Subtotal		441
Total		43	733

Clean-up Activities Initiated by a Local Government, etc.

Name of factories and companies	Event name	Held by	Location	Number of participants (people)
NGK SPARK PLUG CO., LTD. (Komaki Plant),	Komaki City cleanup activities	Komaki City	Around Komaki City	14
NGK SPARK PLUG CO., LTD. (Komaki Plant),	Komaki City cleanup activities	Komaki City	Around Komaki City Auditorium	13
Ceramic Sensor Co., Ltd.	Komaki City cleanup activities	Komaki City	Around Komaki City	8
Ceramic Sensor Co., Ltd.	Komaki City cleanup activities	Komaki City	Around Komaki City Auditorium	5
NTK Ceramic Co., Ltd. (Iijima Plant)	Picnic for the Environment of the Tenryu River System	Nagano Techno Foundation	Confluence of the Otagiri River and the Tenryu River	35