

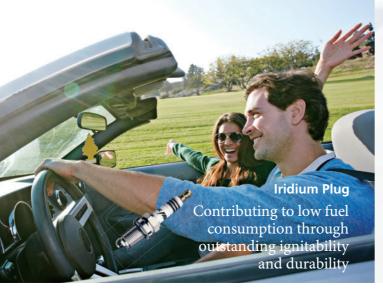
#### NGK SPARK PLUG Group

# CSR Report 2016

CSR Report < Digest Version>



IGNITE YOUR SPIRIT



#### **Ceramic Type Glow Plug**

Contributing to improved combustion in diesel engines and reduction of exhaust gas, with excellent hightemperature durability

Our Main Products

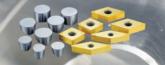
# Exhibiting Visible Effects in Unseen Places

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

#### Packages for Image Sensors

Contributing to image sensor technology in consumer, industrial, and medical applications BIDEMICS for Aircraft Component Processing Applications

Contributing to the aircraft industry through long life and high cutting speed





Zirconia Exhaust Gas Oxygen Sensor

Contributing to cleaner exhaust gas as a key component in air-fuel ratio control

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#### **Editorial Policy**

The CSR Report 2016 is edited with the intention of informing all of our various stakeholders about the CSR activities of the NGK SPARK PLUG Group. Please refer to the Company's website for detailed information.

#### https://www.ngkntk.co.jp/english/csr/



#### Bone Filling Materials (Bio Ceramics)

Contributing to recovery from bone fractures and bone loss on the frontline of advanced medical treatment

# Japan

Consolidated subsidiaries ····· 10 Unconsolidated subsidiaries ····· 1 Equity method affiliates ····· 1 Non-equity method affiliates ····· 1

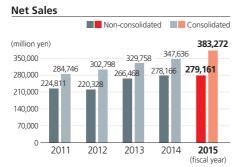


#### Asia / South America / Other

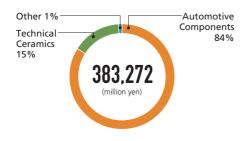
Consolidated subsidiaries ····· 19 Unconsolidated subsidiaries ····· 2 Equity method affiliates ····· 1 Non-equity method affiliates ····· 3

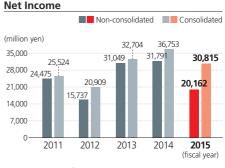
Our Business Activities

# Contributing to Local Communities Right Across the World

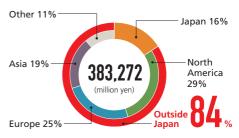


#### Net Sales by Segment





#### Percentage of Sales Outside Japan





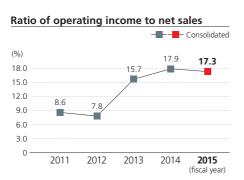
Consolidated subsidiaries ····· 4



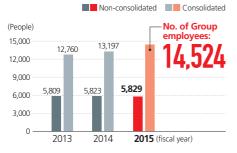
# North America

Consolidated subsidiaries ····· 7 Unconsolidated subsidiaries ····· 3

# and the Environment



#### No. of Employees



#### Corporate Outline (as of March 31, 2016)

| Company name:  | NGK SPARK PLUG CO., LTD.   |
|----------------|--|
| Headquarters:  | 14-18, Takatsuji-cho, Mizuho-ku, Nagoya  |
| Establishment: | October 26, 1936   |
| Capital:       | 47,869 million yen   |
| Business:      | <ol> <li>Manufacturing and selling spark<br/>plugs and related products for<br/>internal-combustion engines</li> </ol> |
|                | 2 Manufacturing and selling technical  |

Manufacturing and selling technical ceramics and applicable products

Group companies: 46 subsidiaries (11 in Japan and 35 outside Japan) and six affiliates





# Delivering Real Value to All Stakeholders

#### Shinichi Odo

Representative Director Chairman of the Board Chief Executive Officer President Officer NGK SPARK PLUG CO., LTD.

Thes

I would like to begin by offering my condolences to those affected by the large earthquake that struck Kumamoto in April 2016. I pray for everyone's safety and a speedy recovery.

#### The NGK SPARK PLUG GROUP's Approach to CSR Management

NGK SPARK PLUG was founded in 1936 and celebrated its 80th anniversary in 2016. Today, we proudly supply products that are truly indispensable to society. I am very grateful for the patronage and support of stakeholders and the hard work of our predecessors that made this possible. At the same time, we are determined to achieve greater sustainable growth by our 90th and 100th anniversaries.

This means that each and every employee must always consider the value of our existence from the perspective of stakeholders in order for us to realize sustainable growth while fulfilling our responsibilities to society. This is because together the compilation of each and every employee considering the meaning and purpose of their work, their ability to growth professionally, and the value they can provide to stakeholders represents the real value we deliver to stakeholders as a company. This also represents a responsibility we bear toward society and the very meaning of our existence as a company. Having employees think and act will lead to their personal growth, the growth of the company, and, as an extension, enable the company to contribute to the growth and development of society as a whole.

On top of this, we are able to create the value we provide as a company only after employees establish and implement targets based on the company's mission and targets,

whereby the targets of each employee and the company are intertwined. This connection between employees and the company as well as society represents the roots of our CSR, I believe. It also represents the NGK SPARK PLUG GROUP's approach to CSR.



#### President's Message for Stakeholders

#### The NGK SPARK PLUG GROUP's Responsibilities to Society

A corporation must enhance corporate value and achieve sustainable growth. This corporate value comprises not only business value such as sales and profits, but also social value.

I believe that we can fulfill our responsibilities to society only after balancing this business value and social value, while also correctly understanding the expectations of stakeholders. The NGK SPARK PLUG GROUP constantly strives to enhance corporate value based on the following approaches.

- We will prepare for natural disasters on a daily basis and strive to ensure a quick restoration of service and stable supply of products in the event of a disaster.
- We will establish a robust governance system and strive to enhance management transparency and greater awareness of compliance to avoid fatal scandals that could negatively affect the operations of the company.
- We will supply high quality products to customer following our long-standing commitment to quality and establish sound relationships with suppliers in order to manufacture high quality products.
- We will work on a wide range of relationship building in order to foster correct understanding of the NGK SPARK PLUG GROUP, while strengthening our message to society and raising the visibility of the NGK SPARK PLUG GROUP, deepening two-way communication with stakeholders.
- Although we are focusing on the greater involvement of women in the workplace with diversity positioned as a key management issue, we will expand our efforts to create sound workplaces globally where diverse human "assets" can thrive professionally irrespective of nationality, age or disability.
- We will always support development of the local communities where we operate and strive to achieve coexistence by giving back to these communities in various ways.
- We will carry out business activities considerate of the environment, being fully mindful of environmental issues and focusing the development and provision of products and services that help to alleviate environmental issues.

#### **Delivering Real Value to Stakeholders**

This year marks the seventh year under the NGK SPARK PLUG GROUP's The Evolution of NGK SPARK PLUG, which represents a long-term management plan detailing our vision for 2020. The Evolution of NGK SPARK PLUG, which started in 2010, is separated into the three stages of Delving, Renovating, and Evolving, and, through efforts in each of these stages, ultimately we will provide Real Value to all stakeholders.

This Real Value becomes real value only after our approach aligns perfectly with the expectations of stakeholders. Our business environment continues to change at an unprecedented pace, while the expectations of stakeholders and our role in society, too, continue to change. Based on a correct understanding of these changes, we will thoroughly explain our approach and utilize stakeholder feedback in our efforts to further enhance corporate value. We must use this cycle to deliver Real Value to all stakeholders.

We hope to be a company that is truly indispensable to the world even in 20 years when we celebrate our 100th anniversary. To become such a company, employees must have pride in their work, consider their responsibilities and what Real Value means for stakeholders, produce results, and be able to explain this approach and perspective with ease.



We are pleased to announce the release of CSR Report 2016, which details our activities during fiscal 2015. We very much appreciate your honest and unreserved comments and opinions.

#### Special Feature

# Our CSR

NGK SPARK PLUG, CO., LTD., which celebrated the 80th anniversary of its establishment this year, will continue to be an indispensable company that fulfills its social responsibility to all stakeholders, even beyond our 90th and 100th anniversaries.

# Our CSR

CSR is usually translated into Japanese as "kigyo no shakaiteki sekinin (corporate social responsibility)." However, we communicate it to our employees as "meeting stakeholder expectations and needs through our business to make stakeholders happy," which is easy to understand.

#### An Unchanging Aspiration from Our Establishment to the Present Day



NGK SPARK PLUG was established in 1936 in a spin-off of the Spark Plug Division of NGK INSULATORS, LTD., our founding entity.

This is the Founding Charter created 80 years ago when NGK SPARK PLUG first came into being. This Founding Charter allows us a glimpse of the objectives and aspirations at the time of the company's establishment. According to this, "The internal combustion engine was in the process of shifting into exports due to rapid progress in traffic conditions. NGK INSULATORS, LTD., which has focused on this, has repeatedly conducted research into spark plugs since 1922, and we will establish NGK SPARK PLUG CO., LTD. in order to further develop and advance this area, contributing to national culture."

In other words, it can be seen that NGK SPARK PLUG was established with the objective of contributing to national culture (the internal combustion engine industry).

| 当社創設時の状況                          |  |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|--|
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| 設立 趣意 書                           |  |  |  |  |  |  |
|                                   |  |  |  |  |  |  |
| 世界ノ交通状勢ハ急達サル進歩リ進ケ今々航空自動車等内燃機器ノ運用  |  |  |  |  |  |  |
| ハ兵極致ニ致ラントシ本邦ニ於ケル此ノ種作業モ港々共実効ソ収メテ自給 |  |  |  |  |  |  |
| 自足ノ時代ヨリ輸出ニ版向セントメル気勢ヲ示シ来レリ而シテ其所要材料 |  |  |  |  |  |  |
| ノ供給ハ緊急欠ク町カフサルモノトナレリ               |  |  |  |  |  |  |
| 日本陽子株式会社ハ茲ニ葿想シテ大正十一年以来点大栓ノ製造研究ニ蒼  |  |  |  |  |  |  |
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| 以テ事業ヲ完成シ邦家ノ文化ニ貢献セントス              |  |  |  |  |  |  |
| 昭和拾世年八月士七日                        |  |  |  |  |  |  |
|                                   |  |  |  |  |  |  |

Founding Charter

#### "Contributing to national culture"



#### The Aspiration Contained in Our Corporate Philosophy

We created our Corporate Philosophy in 1996, the 60th anniversary of our establishment. A corporate philosophy expresses a constant approach for a company to promote its business activities.

The three elements of Commitment, Management Policy and Action Guideline constitute our Corporate Philosophy, which states, "We will deepen mutual trust and confidence, suggest new value with our eyes on the future, and contribute to the peoples of the world" as its slogan.

#### "Contributing to the peoples of the world"

Thus, while the times when each of them was created are different, NGK SPARK PLUG has maintained a constant aspiration to "contribute to the nation and the world," that is society, since its establishment.

# "Wanting to serve society through business"

#### **Building Positive Relationships with Society Through Business**

#### Our connections with society

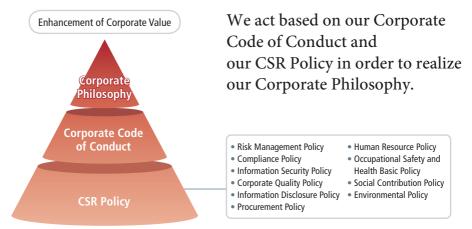


NGK SPARK PLUG engages in business activities with the aspiration of "wanting to serve society through business." Society here indicates the people and organizations with which we have relationships and they are called "stakeholders."

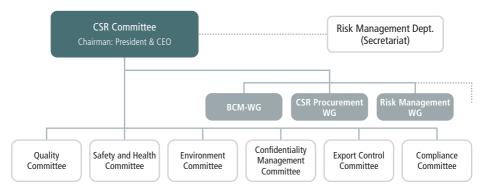
"Stakeholders" refers to the suppliers that deliver raw materials and equipment to us, the customers that buy the products we sell, and the employees involved in our business activities. The shareholders and investors that provide us with capital and the local communities and international society where we have production and sales sites are also our stakeholders. Meanwhile, although not a stakeholder in the sense of referring to people or organizations, we are also connected with the environment that takes in the CO<sub>2</sub> and the waste discharged by our business activities and consideration for the environment is also a responsibility that a company should fulfil.

#### Acting in Accordance with Our Promotion System Based on Our CSR Philosophy and Policy

#### **Organization of our CSR Philosophy and Policy**



#### **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 expert committees 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 groups 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.

#### **Establishing Targets for CSR Promotion Activities**

We have identified the material issues for the NGK SPARK PLUG Group and established medium-term targets for fiscal 2020 and short-term targets for each year. In the establishment of short-term targets, the individual expert committees and departments prepared targets reflecting the Corporate Philosophy, Corporate Code of Conduct and CSR Policy based on a recognition of expectations and needs from stakeholders, and these targets were approved by the CSR Committee.

| Fields o                                  | f Activities  | Medium-term targets (by fiscal 2020)   | Department in charge                                       |
|---|---|--|--|
|   | Company-wide  | · Promote a CSR PDCA cycle on a global basis   | Risk Management Dept.                                      |
|   | CSR Management  | Promote CSR awareness-raising activities on a global basis   | nisk management bepti                                      |
|   | Compliance  |  |  |
|   |   | · Construct a global promotion system  |  |
|   | Company-wide<br>Promotion   | · Continue education on helpline content   | Compliance Committee                                       |
|   | System  | · Continue compliance awareness and knowledge training   | compliance committee                                       |
|   |   | $\cdot$ Continue monitoring of compliance awareness and knowledge and corporate culture change   |  |
|   | Security Control -  | <ul> <li>Deploy educational tools to NGK SPARK PLUG and group companies in Japan and<br/>monitor implementation status and effectiveness</li> </ul>  | The Confidentiality<br>Management Committee                |
|   |   | $\cdot$ Continuously improve security control, including group companies, and establish system for surveillance of implementation status             |  |
|   | Export Control  | <ul> <li>Establish a system for surveillance of implementation status of appropriate export<br/>controls, including group companies</li> </ul>       | The Export Control<br>Committee                            |
|   | Information<br>Security   | <ul> <li>Continuously reduce security risk of group companies through deployment of Group<br/>Information Security Regulations</li> </ul>            | Information Systems<br>Dept.                               |
| Management                                | Respect for and<br>Protection of<br>Intellectual<br>Property Rights | <ul> <li>Implement patent review activities for mainstay products prior to design review meeting,<br/>including group companies</li> </ul>           | Intellectual Property<br>Dept.                             |
|   |   | Establish new methods to deal with increasingly sophisticated counterfeiters, particularly<br>in emerging countries                                  |  |
|   |   | <ul> <li>Have at least 15% of submitted patents be differentiation patents utilizing a patent<br/>portfolio that adds rivals' information</li> </ul> |  |
|   |   | Implement IT-BCP measures  |  |
|   |   | Involve trademark aspects in strengthening our brand organization  |  |
|   |   | · Enhance intellectual property education, including group companies   |  |
|   | Risk Management   |  |  |
|   | BCP/BCM   | · Expand business continuity management system to group companies in Japan   | BCM Working Group  |
|   |   | <ul> <li>Construct a management system that can respond to not only earthquakes but also<br/>other disasters</li> </ul>                              |  |
|   |   | $\cdot$ Construct a procurement BCP framework and expand and operate it at group companies   | Procurement Group  |
|   |   | · IT-BCP countermeasures for server infrastructure (cloud utilization)   | Information Systems Dept.                                  |
|   | Company-wide<br>Risk Management                                     | · Build company-wide risk management suited to NGK SPARK PLUG  | Risk Management Dept.                                      |
| With Our                                  | Safety and<br>Quality   | $\cdot$ Expand quality assurance to all group companies with a focus on goods for all customers  | Quality Committee,<br>Corporate Quality<br>Management Div. |
| Customers                                 |   | $\cdot$ Expand quality management to all group companies aimed at delivering value to all customers  |  |
| With Our<br>Shareholders<br>and Investors | Information<br>Disclosure   | · Disseminate information that leads to increased shareholder trust  | Public Relations Dept.                                     |
|   |   | Disseminate information in an easy-to-understand and approachable manner on a global level   | Risk Management Dept.                                      |
|   |   | · Construct a framework for an IR strategy aimed at institutional investors  | Accounting & Finance<br>Dept.                              |
|   |   | <ul> <li>Disseminate information that captures stakeholders' expectations and the changes in<br/>social trends</li> </ul>                            | Risk Management Dept.                                      |
|   | Employment and<br>Human Rights                                      | · Implement fair evaluations that correspond to clear expectations   | –<br>–<br>– Human Resources Dept.<br>–                     |
|   |   | $\cdot$ Establish educational programs that target the leaders of each group company   |  |
|   |   | · Employ diverse human resources strategically   |  |
|   |   | <ul> <li>Achieve personnel and human resource functions that contribute to the promotion of<br/>management strategy</li> </ul>                       |  |
|   |   | Further encourage the promotion of active participation by women   |  |

| Fields of   | Activities                           | Medium-term targets (by fiscal 2020)   | Department in charge   |
|---|--------------------------------------|--|--|
| With Our<br>Employees                                     | Employment<br>and Human<br>Rights    | · Zero workers leaving their jobs in order to provide nursing care   | - Human Resources Dept.  |
|   |                                      | · Achieve the mandatory number for employment of people with disabilities  |  |
|   |                                      | Promote active participation by seniors  |  |
|   | Occupational<br>Safety and<br>Health | · Raise productivity by decreasing the rate of onset of mental illness   |  |
|   |                                      | <ul> <li>Develop systems that make it difficult for accidents to occur aimed at developing a<br/>global safety culture</li> </ul>          | Environment & Safety<br>Management Dept.                             |
| With Our<br>Suppliers                                     | CSR<br>Procurement                   | <ul> <li>Improve the framework for evaluation aimed at global optimum procurement and<br/>deploy and operate at group companies</li> </ul> | Procurement Div.   |
|   |                                      | · Reduce risk in the supply chain by thoroughly establishing CSR procurement   | - Procurement Div, Risk<br>Management Dept.                          |
|   |                                      | <ul> <li>Promote education and enlightenment aimed at reducing risk utilizing supplier<br/>seminars, etc.</li> </ul>                       |  |
| With Local<br>Communities<br>and International<br>Society | Social<br>Contribution               | <ul> <li>Continually enhance the social status of the NGK SPARK PLUG Group through social<br/>contribution activities</li> </ul>           | Public Relations Dept.   |
| For Environmental<br>Protection                           | Environment                          | · Promote environmental activities aimed at achieving global Eco Vision  | Environmental Committee,<br>Environment & Safety<br>Management Dept. |

#### Implementing Initiatives Aimed at Raising Awareness of CSR

We continuously implement CSR awareness-raising activities.

We have been running elementary CSR training since 2014 as an awareness-raising activity so each and every employee feels more familiar with CSR.

Our elementary CSR training is expected to lead to changes in awareness about work, an increase in motivation, and pride in the company as employees become aware of the connections between themselves and society and of their contribution to society. In addition, we regularly publish the CSR Newsletter and hold lectures by experts to continually raise awareness of CSR.



Training

#### Each Individual Is Aware, Considers, and Acts

In our elementary CSR training, after learning about the establishment of the company, the significance of CSR, and relationships with stakeholders, employees participate in group work that uses card games which get participants to recognize who their stakeholders are and to consider by themselves how to make these stakeholders happy.

By being aware of and considering the fact that the company makes stakeholders happy in various ways, the awareness of individual employees changes and their actions change. As a result, the company changes and makes stakeholders happy again. Through such a cycle, we will continue to be a company that is indispensable to the world.

# Making stakeholders *Happy*



# Responsibilities and Actions for Stakeholders With Our Customers

Our company is able to continue its business activities through the manufacture of goods and the subsequent purchase of these by customers. We are always aware of creating the best value for customers, and strive to provide products with the quality, price, technology, and safety that customers demand, always on schedule.

#### **CSR** Policy

► Corporate Quality Policy

We are committed to "Customer focus", "Involvement of all members", "Continuous Improvement", to provide "Quality Products" to the society, and create new value.

#### **Expectations and demands of customers**



#### **Running "Quality Activity Events" Year Round**

We run quality management events year round, not only in Japan's Quality Month which is held every November. Our quality expos are held at all the sites of group companies in Japan and are visited by more than 5,000 employees each year. We established the expos as an



A quality expo

opportunity to share our approach to quality as well as the diverse quality-related initiatives in workplaces. In addition, we work to maintain and enhance quality through a range of events such as raising awareness about quality through collection of quality slogans and attendance at lectures on quality, evaluation of the results of activities at QC Circle workshops, and promotion of problem solving through tours of inspection by local senior management, including overseas business sites.

#### Quality Training Raising the Quality of Our Manufacturing



Quality training

We are working to develop our human "assets" as "making things is making people." We have established training programs that include quality control and QC Circle Activities, and many of our employees attend these programs. We are also further strengthening more advanced support activities at sites. We expect that training participants will gain significant awareness by revising points on techniques through familiar themes in addition to spreading this awareness to the employees around them.

#### >>> Voice of Our Training Leader Moving from Knowing to Being Able to Use Quality Knowledge

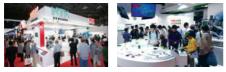
**Fujii** Corporate Quality Management Div.

In our quality training programs, we hear feedback on being able to acquire knowledge such as "I obtained new knowledge" and "I found out about points for analysis." We are providing practical instruction on the themes of individual employees in order to turn this knowledge into something that can be applied to practice. Going forward, we will continue to enhance the quality of products and work through the development of human "assets" with the ability to apply quality knowledge to practice.



#### **Communication through Exhibitions and Events**

We make sure to have PR booths at exhibits and motor sports events. These provide valuable opportunities that allow us to meet with customers and explain our products and technologies directly, and we also use these opportunities to identify constantly evolving needs.



#### <44th TOKYO MOTOR SHOW 2015>

We used exhibited diorama of towns where people live to explain our products and technologies which are widely used in motorized societies in a way that was easy to understand with the theme "A dancing heart, driven by NGK."



<PR booth exhibits at race circuits>

In fiscal 2015, we exhibited a total of six times in PR booths at race circuit venues when motorcycle and automotive racing events were being held. In addition to introducing our products to motor sport fans, we held stage events that included bingo games and spark plug replacement experiences in which many customers took part.



# Responsibilities and Actions for Stakeholders With Our Shareholders and Investors

Our company has received investment from many shareholders and investors. We work to make timely and appropriate disclosure of information through IR activities and on our website, while enhancing our corporate value and paying stable dividends.

#### **CSR** Policy

#### ► 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.



# Engaging in Activities to Make Shareholders and Investors Familiar with NGK SPARK PLUG CO., LTD.

We hold company briefing sessions for shareholders and investors. In fiscal 2015, in order to raise our profile, which remains low nationwide, we visited areas all over Japan again to get the unedited opinions of investors and our shareholders. We will continue to value dialogue with all investors and our shareholders.



#### Voice of Our Investor Relations Representative

#### Aiming to Raise Corporate Value

Uchikawa Public Relations Dept.

Our goal in the Public Relations Department is to get all stakeholders to understand the company "accurately," "deeply," and "constantly," to raise corporate value. Going forward, we will continue to make every effort to disseminate the appropriate information and raise the quality of communication.



# Responsibilities and Actions for Stakeholders With Our Supplier

Our Group is able to create and sell its products thanks to the provision of raw materials, components, and more by suppliers. Our suppliers are valuable partners of our company; we aim to construct sound relationships with suppliers and grow together.

#### **CSR** Policy

#### 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:

# of suppliers Equitable dealings Proper payment Education support Suppliers Cooperative relationship Making suppliers Happy

**Expectations and demands** 

#### by meeting the above

#### Promoting Follow-Up Activities for Regular Supplier Assessments

Once a year, we conduct regular assessments of targeted suppliers and inform them of the results. We visit suppliers where follow-up is particularly required to consult about difficulties, carry out onsite confirmation, consider together what to improve so as to overcome weaknesses and implement improvement activities. We will continue to further deepen our relationships of trust with suppliers not only through day-to-day purchasing transactions, but also through follow-up and support activities.





# Responsibilities and Actions for Stakeholders With Our Employees

The business activities of our Group are made possible by the respective roles played by our employees. We consider our employees to be human assets, and strive to create work-friendly environments in which diverse employees can work in safety.

#### **CSR** Policy

Human Resource Policy

We acknowledge that employees are the most important management resources. In 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.

#### **>** Basic Policy on Industrial Safety and Health

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

## Employees' expectations and demands



#### **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.

#### Focus on Employing Non-Japanese Nationals

Since 2013, we have started putting a particular focus on employing non-Japanese nationals in our new graduate recruitment, and have consistently employed at least three non-Japanese students each year.

Moreover, recently we have not only been putting efforts into employing foreign students at Japanese universities, but also non-Japanese students who have learned Japanese at universities overseas and wish to find work in Japan.

We have been active in this way from the angle of recruitment with aim of forming a global organization to respond to rapid globalization.

# Strengthening and Maintaining Initiative to Promote Active Participation of Women

We are promoting the active participation of women as a management strategy from the top down. The "DIAMOND Project" launched in June 2013 with the following principles: "changing the corporate culture," "changing the consciousness," and "changing the environment." We hold events, such as "Forum for Female Employees," "Training for Next Generation Female Leaders," and "Career Advancement Support Program," "Career Training for Employees Returning from Childcare Leave," and "Women's Networking" to support female employees in building their career and to stimulate their ambition. We also held lecture meetings for all senior managerial employees once or twice a year to deepen their understanding of diversity management.

Furthermore, in all departments, including those of Japanese group companies, general managers devised and implemented action plans that suited their own departments. In fiscal 2015, we presented Encouragement Awards to departments with outstanding initiatives. We are also expanding systems to create a workplace that is more comfortable for female employees.

#### Voice of the Project Leader We Aim to Create a Company Where All Employees Can Play an Active Role Otsuka

Human Resouses Dept.

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.



Member of DIAMOND Project (Front row, center: Otsuka)

#### Efforts to Upgrade Monozukuri Skills



Practical training in the use of tools

NGK SPARK PLUG CO., LTD. is a manufacturing company, and maintaining and upgrading our *monozukuri* (manufacturing) skills is essential in order to continue producing quality items. However, there are concerns about a decline in *monozukuri* skills at Japanese companies in general due to the mass retirement of the baby boomers and the shift of young people away from *monozukuri* with the changing times. Therefore, we established the *Monozukuri* Education and Training Center and continually provide education and training on the necessary knowledge and skills at the appropriate times.



Responsibilities and Actions for Stakeholders
With Our Employees

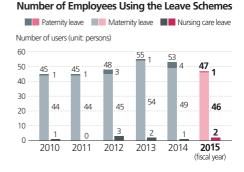
#### Initiatives that Consider Work-Life Balance

We are promoting initiatives that consider the work-life balance of our employees. In fiscal 2013, the number of employees on childcare leave exceeded 50, and male employees have also been taking leave each year recently. Moreover, almost all employees returned to work after taking leave.

We have changed the system for the shorter work day for child rearing by extending availability from the conventional period of the first grade of elementary school to the end of the third grade, allowing employees who wish to use the system to spend more time involved in their children's development.

Also, labor and management work together to make active efforts aimed at reducing

total actual working hours. Awareness raising posters have been put up at all worksites in efforts to set out and publicize initiatives in employees' own worksites. Long working hours are prohibited as a rule, and Wednesdays are designated a simultaneous company-wide "No Overtime Day." At worksites that have been unable to implement this, management and labor confirm the reasons for it as well as countermeasures and make efforts for the rigorous implementation of this system.



#### **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 by raising awareness 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.

#### **Toward Elimination of Occupational Accidents**

In fiscal 2015, the total number of accidents was 13, and the total frequency rate was 1.06. The number of accidents itself was at the same level as the past few years. However, 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 as accidents involving departments operating equipment that are likely to lead to serious accidents and accidents resulting in absence from work have been on a downward

trend. On the other hand, the percentage of occupational accidents involving temporary workers is on the increase. Therefore, we are working with temporary employment agencies in an effort to reinforce training and awareness and promote further reductions in occupational accidents.

Furthermore, in fiscal 2015, we worked to raise employees' awareness of traffic safety by introducing dashcams into company-owned vehicles and holding traffic safety seminars for all employees.



A traffic safety seminar

# 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 introduced a new inspection technique called "Safety Observation" in fiscal 2015.

In the conventional inspections, there was a tendency to focus on identification of the 5S in the workplace. However, under Safety Observation, we check workplace risks, primarily the actions of workers, by observing from a fixed place in the workplace because many occupational accidents occur due to unsafe actions during work.

Through Safety Observation, it is possible to be aware of unsafe actions that arise from muri, muda, mura (unreasonableness, waste and inconsistency) by workers that is not noticed when simply looking at work procedure manuals. Participants have also expressed positive opinions including such comments as, "I felt that it is an effective way to improve work methods."



#### Voice of Our Safety and Health Leader Participation by All Members in Safety Declarations

Ichikawa Environment & Safety Management Dept.

The cooperation of every single person working in the workplace is needed in order to reduce industrial accidents. During the safety, health and environment conferences held at each plant every year in order to get employees to think about safety a little and translate thoughts into action, we got people, including managers, to fill out "My Safety Declaration." We really want people to put their safety declarations into practice in the workplace as well and increase the amount of time they spend thinking about safety.



# With Local Communities and International Society

Our company has established sites in every region of the world. We respect local culture and customs, and engage in smooth communication with local communities. As members of those communities, we aim to work together in building a comfortable society, and strive to participate in regional development, environmental preservation, and other activities that contribute to society. Expectations and demands of local and international communities



#### **CSR** Policy

► Social Contribution Policy As a good corporate citizen, we at the NGK SPARK PLUG Group aim to contribute to soc

SPARK PLUG Group aim to contribute to society through the effective use of management resources.

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

#### NGK SPARK PLUG CO., LTD.

To encourage the further development of culture and the arts, as well as to contribute to the invigoration of local communities, we held a musical event at NTK Hall in Nagoya, a venue that bears our company name in Japanese through a partnership in naming rights. We have held the event since 2013, inviting residents of the community, families in Aichi Prefecture who were impacted by the Great East Japan Earthquake, and employees of the company. In 2015, about 3,500 people came to the musical event.



Letters of appreciation from visitors to the event



#### NTK CERATEC CO., LTD.

Taking our change of name as an opportunity and hoping to be a company loved by our home region of Sendai, our Headquarters Factory made a donation of rehabilitation equipment to the Sendai City Council of Social Welfare.



#### Spark Tec Tono CO., LTD.

At the suggestion of employees, we took part in a local cleanup within Kani, Gifu Prefecture. Employees from the Nino Headquarters Plant and the Tono Plant joined with members of their families, with 85 persons in total taking part in the cleanup.



#### NGK Spark Plug (Shanghai) CO., LTD.

Employees of our company stood at intersections on non-working days to urge passersby to observe traffic signals, contributing to the maintenance of orderly traffic in the city.



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

We took part in the Adopt-A-Highway program, becoming foster parents to the arterial road in front of the West Virginia Factory and performing cleanups and planting activities.



#### NGK Spark Plugs (U.K.) LTD.

Employees bicycled through five European countries to raise funds for people with Down syndrome.



Ceramica e Velas de Ignicao NGK do Brazil Ltda.

We donated ceramic tiles manufactured by our company, for use as materials in sculptures made in schools by local artists.



### Responsibilities and Actions to Environment For Environmental Protection

The CO<sub>2</sub> and wastes generated by our business activities have an impact on the local and global environment. We work toward environmental preservation through means including energy conservation, effective use of resources, appropriate management of chemical materials, and development and provision of environmentally friendly products.

#### **CSR** Policy

Environmental Policy

As a globally developing core manufacturing corporation, we are aiming to simultaneously realize environmental preservation and corporate growth, based on the participation of all our employees, in order to contribute to the construction of a sustainable society.



#### Formulating Global Eco Vision 2020 and launching activities

In our activities for environmental conservation, we set medium-term environmental targets. From fiscal 2016, we have drawn up a vision for our company and launched activities under Global Eco Vision 2020.

We set four important environmental tasks, "Natural resources", "Global warming", "Toxic, hazardous chemicals" and "Key quality (Environmentally-Friendly products)", under Global Eco Vision 2020. By tackling these tasks through our business activities and on a foundation of legal compliance, communication, and raising consciousness of the environment we will work to enhance our manufacturing power, increase our brand value, and contribute to not only the sustainable development of our company, but of society, also.



#### Comment from a participant in formulating Global Eco Vision 2020

#### and Safety Management Dept

Environment and Safety Management Dept.

It is important to undertake environmental activities from a long-term standpoint and with all participants focused on the same things. While our company had already been engaged in activities established under Eco Vision, the name for our medium-term environmental targets, in April 2016 we established Global Eco Vision 2020, which depicts our vision for the company in fiscal 2020.

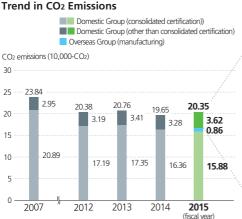
Global Eco Vision 2020 aims to align the direction of managerial tasks, business tasks, and environmental activities. It was shaped through considerations of what society demands of us and what is important for us as a company, with a particular focus on important environmental issues.

I was involved in its formulation as a member of a cross-departmental working group. Under the Vision, we will push ahead with environmental activities in a way that lets employees come together as one, and will strive to provide true value in terms of the environment.



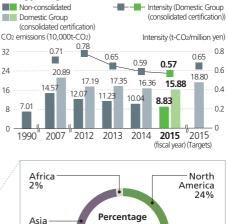
#### Meeting Our Target for Reducing CO<sub>2</sub> Emissions

In fiscal 2015, our CO<sub>2</sub> emissions was 158,800 tons, meeting our fiscal 2015 target of 188,000 tons and also lower than in fiscal 2014. In addition, intensity of emissions improved by 20% compared with fiscal 2007. The target was attained through updating of facilities (for energy efficiency) and achieving an energy-savings effect by revising our manufacturing conditions.



\*The numbers for FY2015 include emissions for domestic Group companies thatare not included in the consolidated certification.

#### Transition of Emission Volume of Energy-Origin CO<sub>2</sub> (Offices and Plants)





of emissions

by overseas

region

30%



# **For Environmental Protection**

#### **Energy Conservation during Transportation**

As a Specified Consigner designated under the Act on the Rational Use of Energy, we endeavor to reduce CO<sub>2</sub> emissions during transportation. In fiscal 2015, our energy use intensity was 0.359 kL/100 million yen, which fell below the target of 0.408 kL/100 million yen.

This is attributable to measures by transportation departments, such as reducing packaging weight through changes to the form of packaging, switching to more local waste disposal firms, and shortening transport distances through plant reorganization and consolidation.

#### **Reduction of Waste Generated**

In fiscal 2015, 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 59% compared with the fiscal 2007 level.

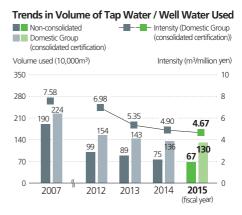


#### Transition of CO<sub>2</sub> Emissions as Consigner



# Reducing the Amounts of Tap and Well Water Used

In fiscal 2015, our water use intensity was 4.67 m<sup>3</sup> / million yen. Water use intensity improved by 38% compared with fiscal 2007 due to conserving water by changing manufacturing conditions and upgrading and updating to equipment with a high water-savings effect.

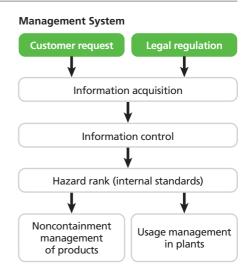


#### Handling of Hazardous Chemical Substances within the Group

To respond appropriately to increasingly strict chemical substance regulations worldside, we perform non-containment management for products and usage management within plants.

For hazardous chemical substances, we set hazard rankings according to toxicity and the strictness of regulations, and establish handling standards for each rank. In fiscal 2015, we reviewed the operation of our hazard rankings and strengthened our structure for examinations of whether to use a substance.

From here on out, we will work toward substitution of hazardous chemical substances and the strengthening of management, to assure compliance with laws and with the demands of customers.



#### **Developing Environmentally Friendly Products**

Our company provides products that contribute to the environment, including spark plugs and automotive oxygen sensors that help improve fuel efficiency and purify exhaust gases from automobiles, as well as LED packages and cutting tools that are long-lasting and help conserve energy and resources. We are also undertaking development of new products in the environmental area, such as solid oxide fuel cells (SOFCs).

From here on out, we will strengthen activities to promote energy and resource conservation more than ever in the manufacturing process, by working these into the design stage. Through this, we will advance development of products that contribute to the environment in terms of both product functions and manufacturing processes.



Strengthening the business foundation

## Management

In order for our company to continue its business activities, it is necessary that we be a company that is recognized and trusted by stakeholders. We aim to continue as a trusted company through every officer and employee acting in compliance with laws, regulations, and rules, while we build a sound management structure and prepare for possible risks.

#### Actions required of global companies



by conforming to the above and continuing our business

#### **CSR** Policy

#### Compliance Policy

With recognition that our company is a member of society, we enhance corporate ethics and understand the spirit and meaning of laws, company regulations, international rules, and social norms in order to appropriately meet social demand and become a company trusted by the international community.

#### Risk Management Policy

We will identify the risks that could have serious impact on our business activities based on the comprehensive understanding of the risks related to our Group, and take necessary measures to prevent the occurrence and recurrence so that the risks are reduced to an acceptable level. Even if such a risk should occur, we will also strive to restore and continue smooth business operations, thereby maintaining trust from our stakeholders.

#### Information Security Policy

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

## **Corporate Governance**

# Nominating Outside Directors and Strengthening Corporate Governance

At the Ordinary General Shareholders' Meeting in 2016, NGK SPARK PLUG CO., LTD. increased the number of its outside directors by one, bringing the number of outside directors to three in order to further clarify the separation between management and execution and to strengthen corporate governance.

The outside directors attend meetings of the Board of Directors, providing supervision for the execution of duties as well as advice from an independent perspective based on their great experience, deep insight, and expert knowledge.

# Compliance

#### **Promoting Compliance Education**

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 2015, we held 14 seminars for employees with internal instructors as well as seminars for officers with experts as an activity to respond to infringements of competition laws that came to light in fiscal 2014. Moreover, we conducted onsite audits into compliance with competition laws at Group companies in the Americas, Asia, the Middle East, and Africa and confirmed there is thorough awareness of the rules.

Going forward, too, we will continue to confirm our compliance system and carryout education globally.



Compliance Guidebook

# **Risk Management**

Holding Company-Wide Disaster Prevention Training and Disaster Imagination Game (DIG) Training for Officers



A scene from DIG training for officers

Every year we hold training based on the scenario of a large-scale earthquake to prepare for an emergency situation.

At the time of the company-wide disaster prevention training in November 2015, after over 4,000 employees participated in an emergency evacuation, they moved to a primary evacuation center. We also had water pumping drills by the in-house fire brigade and fire extinguisher use drills for the primary fire-fighting people.

Meanwhile, in disaster imagination training for officers, there were drills in returning operations to normal assuming a shutdown of operations.

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[Period covered] From April 1, 2015 to March 31, 2016 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 CO., LTD.
  - $\cdot$  11 consolidated subsidiaries and one affiliate in Japan

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