



Zeon Group
CSR REPORT 2017

ZEON

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Editorial Policy

Zeon Corporation and Zeon Group ("Zeon") publish the Corporate Report to provide stakeholders with an overview of Zeon's general business activities. The Corporate Report serves as an annual report and corporate profile, while the CSR Report, published from 2017, serves to inform stakeholders in greater detail about our approach to CSR and environmental activities. The CSR Report is available in PDF format and features information on our CSR initiatives that we have published in various forms on the Zeon corporate website.

The FY 2017 edition of the CSR Report uses the core subjects of ISO 26000, the international standard for social responsibility, as a framework. Highlighted news in the FY 2017 report cover S-SBR used in tire rubber and energy materials used in lithium-ion batteries. The CSR Report provides a comprehensive survey of our approach to CSR and our CSR initiatives. It also serves as a communication tool to promote dialogue with all of our stakeholders so that we can create more positive impact in the world. We ask for your candid feedback and opinions to help guide our activities in the future.

Reporting Period

April 2016 to March 2017 (includes some information after April 2017)

Reporting Scope

Zeon Corporation and Zeon Group companies inside and outside Japan. Some data covers only Zeon Corporation.

Reporting Scope for Environmental Data

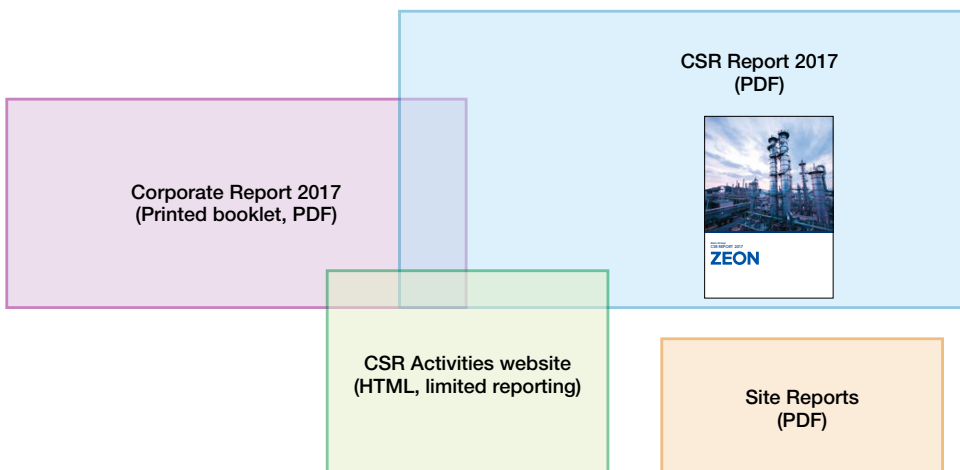
Japan: Zeon Kasei Co., Ltd., Zeon Polymix Inc., Zeon Medical Inc., Zeon North Co., Ltd., Tokyo Zairyo Co., Ltd., Rimtec Corporation, Zeon Yamaguchi Co., Ltd., Zeon Chemicals Yonezawa Co., Ltd., Optes Inc., Tohpe Corporation
 Outside Japan: Zeon Chemicals L.P. (ZCLP), Zeon Chemicals (Thailand) Co., Ltd. (ZCT), Zeon Advanced Polymix Co., Ltd. (ZAP), Zeon Chemicals Singapore Pte. Ltd. (ZCS)

Reference Guidelines

This report was compiled while referencing the 2007 Environmental Reporting Guidelines of the Japanese Ministry of the Environment and ISO 26000.

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http://www.zeon.co.jp/index_e.html

CSR Communication Tools



Highlight 1 Zeon Products Making Contributions to Society

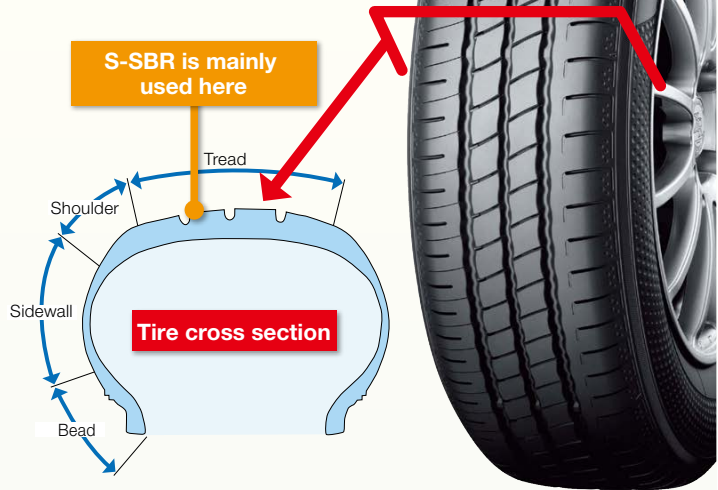
S-SBR in tire helps fight climate change

Fuel efficiency is one important element determining a vehicle's value. Tires have a significant impact on fuel efficiency. When driving on city streets, tires account for approximately 10% of a vehicle's fuel efficiency. This increases to more than 20% when driving at fixed speeds such as highway cruising speed.

Tires that meet a certain standard of performance are called **fuel-efficient tires**. Zeon's solution-polymerized styrene-butadiene rubber (S-SBR) makes significant contributions to this fuel-efficient performance.

Fuel-efficient tires typically weigh between 7 and 8 kilograms, of which approximately 10% is S-SBR. In addition to rubber, tire manufacturers use a number of materials combined with their own technologies to make vehicle tires.

The diagram shows the different parts of a tire. Zeon's S-SBR is used in the **tread** that makes contact with the road.



Driving condition and tire contribution to fuel efficiency

Driving condition	Tire contribution (%) to fuel efficiency
Constant driving speed	20 – 25%
Driving on city streets	7 – 10%

Source: Tire Fair Trade Council (Japan) website (Japanese only)
<http://www.tftc.gr.jp/performance/labeling>

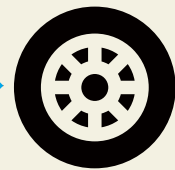
Tires are made from many materials

Zeon supplies S-SBR as one of the raw material rubber



S-SBR shipment
 S-SBR is shipped in 35-kg blocks. Tire manufacturers then crush this and combine it with other materials.

Tire manufacturers
 Kneading / Parts creation / Molding / Vulcanization / Inspection / Shipment



Materials supplied from materials manufacturers

- Natural rubber
- Carbon black
- Sulfur
- Fiber
- Butadiene rubber
- Silica
- Compounding agents
- Wire

What is rolling resistance?

A vehicle's fuel efficiency is affected by its tires' rolling resistance. As the diagram on the right shows, there are three types of resistance. Because about 90% of the resistance comes from tire deformation, controlling tire deformation is key to reducing rolling resistance.

Zeon reduces tire deformation by controlling the molecular structure of S-SBR.

Three types of rolling resistance affecting tires during driving



Highlight 1 Zeon Products Making Contributions to Society

Zeon's S-SBR boasts three world-class properties

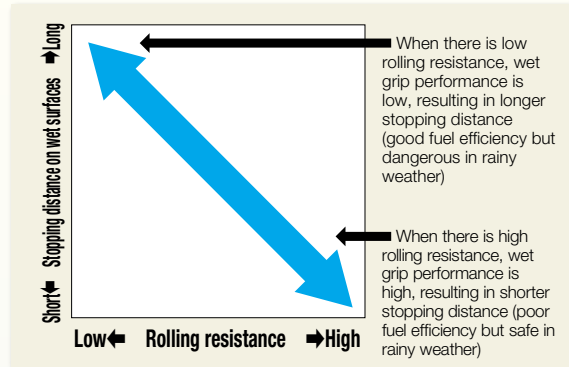
Having too little rolling resistance is dangerous, because tires will have poor wet grip performance and be slippery on wet road surfaces. Generally speaking, **rolling resistance** and **wet grip** have an inverse relationship—when one gets better, the other gets worse.

So tire manufacturers have been innovating in many ways to develop tires with low rolling resistance and high wet grip performance, including rubber composition, tire construction, and tread patterns.

Wear resistance is another important feature that tires need in order to deliver long life.

Zeon's S-SBR technology controls the molecular structure of the rubber to achieve high performance in the three aspects of wet grip, rolling resistance, and wear resistance.

Relationship between rolling resistance and stopping distance on wet surfaces



1 Wet grip performance

Just the *right softness* to grip wet roads

Rubber softness when braking is regulated by controlling the ratios of styrene and butadiene, two raw materials of S-SBR, and butadiene bonding types.

2 Low rolling resistance (better fuel efficiency)

If the drag against a vehicle's motion is low, fuel consumption will also be low

The coupling agents at the middle and the end of S-SBR molecule disperse the right amount of the reinforcing fillers (carbon black and silica).

3 Wear resistance

Tires better able to withstand friction will last longer

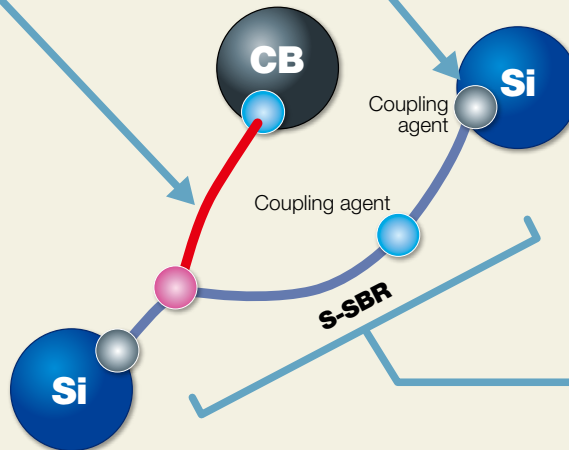
The size of rubber molecules primarily affects wear resistance, and S-SBR regulates rubber molecule size and branching.

S-SBR and reinforcing fillers

Reinforcing fillers

CB: Carbon black
Powdered carbon. Blended with rubber to make it stronger

Si: Silica
Powdered silicon dioxide (SiO₂). Blended with rubber to make it softer and lower rolling resistance while improving wet grip performance



Reducing vehicle CO₂ emissions with fuel-efficient tires

Comparing the lifecycle CO₂ emissions of fuel-efficient tires and standard tires from raw materials production to disposal, fuel-efficient tires reportedly have 19% lower CO₂ emissions*. Zeon is contributing to reducing overall vehicle CO₂ emissions by improving the performance of fuel-efficient tires with S-SBR.

* Tyre Life Cycle CO₂ Calculation Guidelines, Ver. 2 (Japan Automobile Tyre Manufacturers Association)

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Highlight 2 Zeon Products Making Contributions to Society

Zeon's energy materials supporting lithium-ion batteries

Today's smartphone batteries have greater capacity, output, and operating life than yesterday's cell phones. Lithium-ion rechargeable batteries are also used in electric and hybrid vehicles. These batteries have been adopted in vehicles because of their recognized safety performance.

In the growing lithium-ion rechargeable batteries market, we have been focusing on the potential of binders used in the batteries. Zeon's energy materials are one factor contributing to the widespread use of lithium-ion rechargeable batteries today.

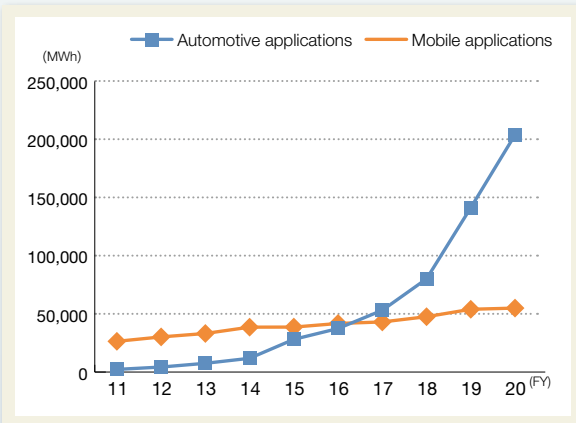


Growing lithium-ion rechargeable battery market for automobiles

Lithium-ion rechargeable batteries were commercialized in 1991, and their market has grown from their contributions to the spread of desktop and laptop computers as well as cell phones. Lithium-ion batteries were first used in vehicles in 2010, and by 2016 the automotive battery market quickly grew to about the same size as the mobile electronics battery market. The high growth seen in the automotive lithium-ion rechargeable battery market is expected to increase further with the rising number of hybrid and electric vehicles in the market. The markets where Zeon's energy materials can make contributions are also expected to expand.

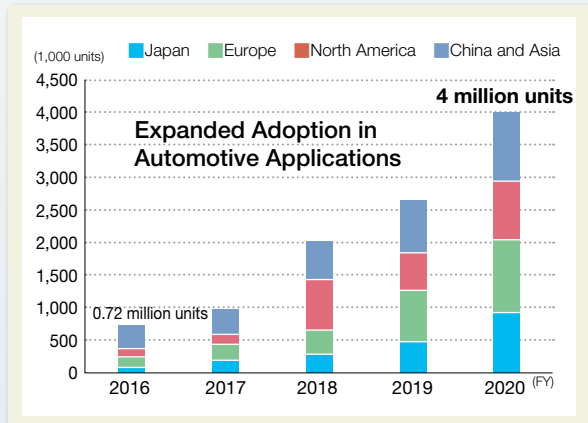


● Growth in Battery Market of the Automotive and Mobile Electronics



Source: B3 Report, November 15-16

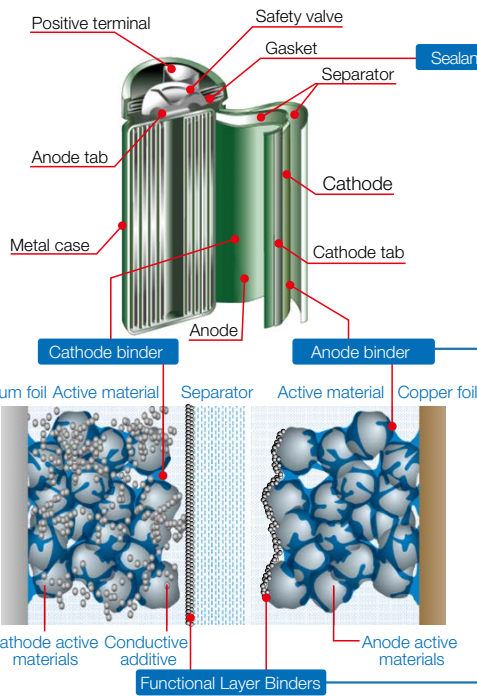
● PHV & EV Sales Forecast by Automaker



Source: Zeon estimates based on B3 Report

Highlight 2 Zeon Products Making Contributions to Society

Zeon's Energy Materials



Sealants

Compounds for coating the gasket surface of cylindrical lithium-ion batteries to increase the adhesive properties of the cylinder's exterior and cap.
Zeon's sealants offer excellent heat resistance, cold resistance, and electrolyte resistance. They help prevent battery leakage to preserve battery performance and extend operating life.
 → **Contributing to longer life**

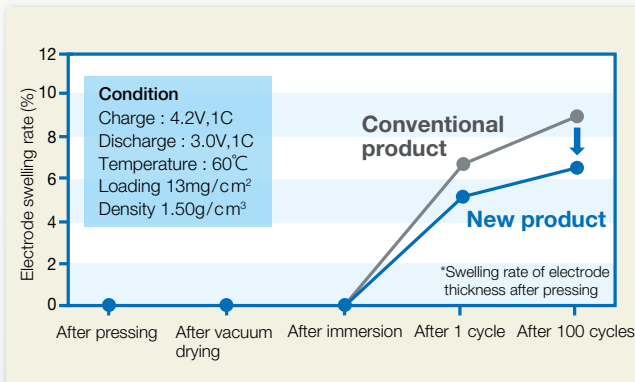
Cathode and anode binders

Lithium-ion rechargeable batteries comprise cathode materials made from metal oxide including lithium, anode materials that attract lithium ions, the electrolyte that transfers the lithium ions between the cathode and anode, and a separator that electrically separates the cathode and anode. The basic function of the cathode and anode binder is to bind the cathode and anode particulate material to the electrodes. Binders have received attention recently for their ability to control interface reactions with the active material and the electrolyte solution.
Zeon's binders create the right amount space in the active material for lithium ions to pass and are resistant to volume expansion and shrinking from battery charging and discharging.
 → **Contributing to longer life**
Zeon's binders not only bind, they support the chemical reactions occurring on the surface of the active materials. This enhances the reactions to increase battery output.
 → **Contributing to higher output**

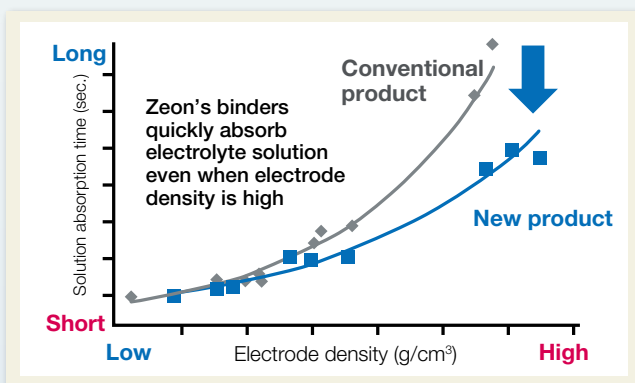
Functional Layer Binders

To meet the growing needs for safety, battery structures that separate the heat-resistant layer or coat the electrode surfaces to prevent internal short circuits have been commercialized.
Zeon started this development in 2003 and released a binder for the heat-resistant layer in 2005. We are expanding sales of this binder mainly for automotive applications. In 2013, we released a slurry for the heat-resistant layer.

1 Preventing electrode volume expansion



2 Improving electrolyte impregnation



3 Preventing thermal contraction of the separator with a functional layer binder



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Zeon's CSR

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Zeon CSR Policy

At Zeon, we regard CSR activity as all activities undertaken in order to continue being “a company trusted and valued by society.” With each employee acting in awareness of CSR, we will thoroughly enact compliance and contribute to the global environment and sustainable development through corporate activities.

Corporate Philosophy

Corporate Philosophy (established April 1997)

“Zeon is contributing to the preservation of the Earth and the prosperity of the human race.”

In keeping with its name, which derives from the Greek words “geo” (the Earth) and “eon” (eternity), Zeon will contribute to the sustainable development of people, society and the global environment through innovative world-class technologies.

- As an indispensable and valuable corporate citizen, we will enhance our corporate value and meet the expectations of society.

Third Principle

- We will establish Corporate Governance with CSR management as a pillar
- All employees will act with thorough awareness of CSR and meet the public's expectations
- All employees will fulfill Zeon's CSR with enthusiasm
- We will pursue environmental preservation as well as safety and quality assurance through the participation of every individual and in every corporate activity.

CSR Policy

CSR Policy (established April 2010)

1. We will ensure compliance and meet society's needs for safety and security
2. We will contribute to sustainably developing society and protecting the global environment through our corporate activities
3. We will ensure that each and every Zeon person is aware of CSR and acts accordingly

CSR Code of Conduct

Our CSR Code of Conduct defines how we will take action proactively from the standpoint of meeting the expectations of society (established April 2010).

CSR Code of Conduct

<http://www.zeon.co.jp/content/000257956.pdf>

Each principle is further defined as follows.

First Principle

- We will comply with laws and regulations, firmly uphold the values and ethics required of a corporate member of society, and cause no distress to society
- We will undertake enterprise-wide environment and safety initiatives to prevent accidents and provide a sense of security to our employees as well as our local communities
- We will thoroughly address quality and product liability issues to avoid impairing the safety and security of society

Second Principle

- We will contribute to the realization of sustainable development and protect the global environment through our core business
- We will encourage proactive action across the world, refine innovative technology, and continually create new products.

CSR Management

At Zeon, we regard CSR activities as all activities undertaken in order to continue being “a company trusted and valued by society.”

In April 2010, we established our CSR Policy and CSR Code of Conduct, which defines the CSR Policy in terms of actions. In January 2011, we established our current CSR Management Framework.

CSR Management Framework

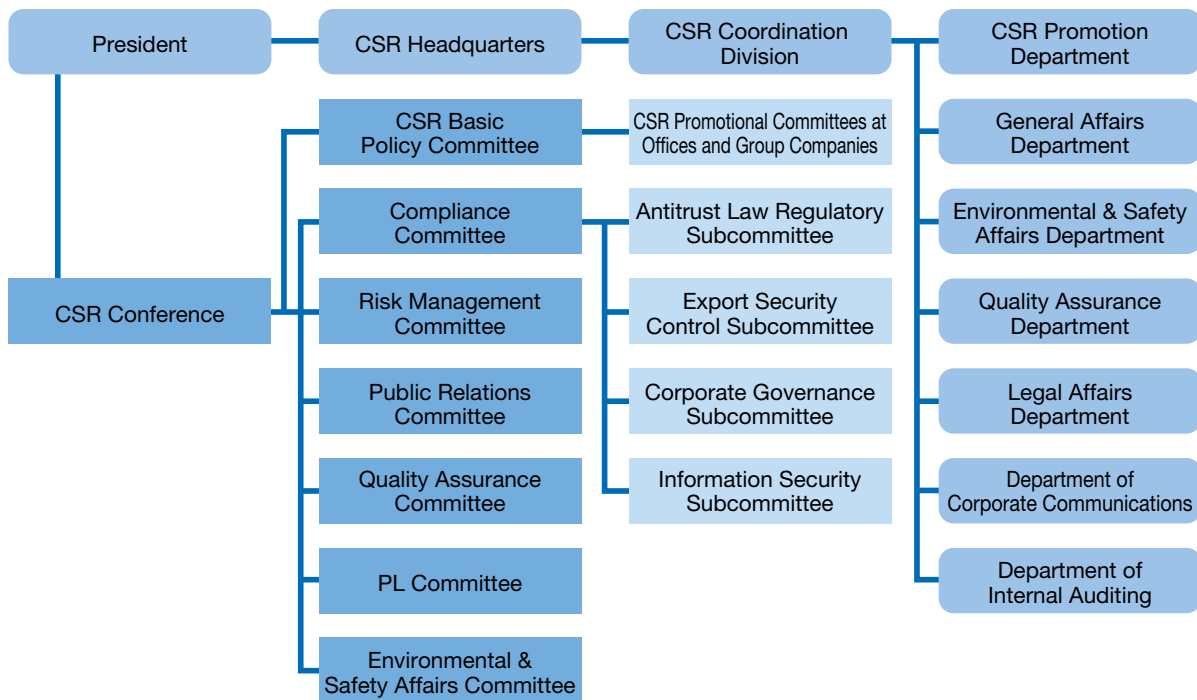
The CSR Management Framework comprises the CSR Conference and seven committees.

Chaired by the President and held six times a year, the CSR Conference is the chief decision-making body on matters relating to CSR. The CSR Conference is held to review and finalize committee activities, initiatives, and annual activity plans, and to give instruction as necessary based on related

progress reports.

The committees report to the CSR Conference and advance CSR activities in their specific areas. The seven committees are the CSR Basic Policy Committee, the Compliance Committee, the Risk Management Committee, the Public Relations Committee, the Quality Assurance Committee, the PL Committee, and the Environmental and Safety Affairs Committee.

Zeon's CSR Management Framework



CSR Basic Policy Committee

Purpose of establishment: To enhance CSR activities

The CSR Basic Policy Committee provides guidance and support for the activities of the CSR Promotional Committees at six Zeon locations and nine Group companies in Japan. The Committee also defines the standards for responding to community requests for support and established a framework for supporting social contributions.

Social contribution projects (CSR Core Projects) have been carried out since FY 2012.

- Support for reconstruction of areas affected by the Great East Japan Earthquake
- “Chemistry Classrooms,” where we communicate the appeal of chemistry to children

Compliance Committee

Purpose of establishment: To prevent violations of laws and regulations

The Compliance Committee is responsible for creating compliance education and training programs to be implemented by managing business divisions. The Compliance Committee has the following four subcommittees.

For more information about its activities, see Compliance (→ P56).

Antitrust Law Regulatory Subcommittee

Established to prevent violations of antitrust law by officers and employees of Zeon Group and to engage in free and fair competition among businesses. Meetings are held as required.

Export Security Control Subcommittee

Established to ensure appropriate export and domestic sales practices through compliance with Japan's Foreign Exchange and Foreign Trade Act and related laws in regard to products sold and technologies licensed or provided by Zeon. Meetings are held as required.

Corporate Governance Subcommittee

Established to exercise internal control over financial reporting by Zeon Group. Meetings are held as required.

Information Security Subcommittee

Established to ensure that information held by Zeon Group is properly managed and to protect the confidentiality, integrity, and availability of Zeon's information assets from threats in the form of willful misconduct, negligence, accidents, and disasters. Meetings are held as required.

Risk Management Committee

Purpose of establishment: To manage business continuity risks

The committee is responsible for systematically preventing potential risks and managing risks that emerge. It also aims to provide disciplined response to minimize loss in the event that a crisis does occur.

For details on its activities, see Risk Management. (→ P21)

Public Relations Committee

Purpose of establishment: Effectively communicate information about Zeon

The Public Relations Committee aims to enhance Zeon's profile and image through accurate communication of our corporate philosophy, approaches, and activities. The Committee also ensures timely and appropriate disclosure of information by Zeon Group.

For more information about its activities, see Fair and Appropriate Information Disclosure. (→ P58)

Quality Assurance Committee

Purpose of establishment: Support quality assurance

The Quality Assurance Committee reviews quality assurance activities and their implementation, and examines and takes action to improve issues related to quality assurance.

For more information about its activities, see Quality Assurance. (→ P60)

PL Committee

Purpose of establishment: Activities related to product liability

The PL Committee plans prevention activities and trainings related to product liability and monitors that status of emergency response.

For more information about its activities, see Quality Assurance. (→ P60)

Environmental and Safety Affairs Committee

Purpose of establishment: Activities related to the environment and safety

The Environmental and Safety Affairs Committee plans and proposes specific environmental and safety initiatives and monitors the progress of addressing environmental and safety issues.

For more information about its activities, see Environment (→ P22) and Safety. (→ P35)

Timeline of CSR Initiatives

CSR Activities

- 1995: Joined the Japan Responsible Care Council and declared our commitment to Responsible Care
Established Zeon's Responsible Care Policy
- 1996: Revised the companywide safety management system and established the Plant Technology Audit System
- 1997: Established the Safety Philosophy
Held the first Zeon Safety Month and the All-Zeon Safety Conference (subsequently held each year in April)
Established the Code of Conduct (Zeon's Seven Articles)
- 1998: Established the Responsible Care Policy
- 1999: Established the Risk Management Rules
- 2000: Published the first Responsible Care Activity Report (1999 edition)
- 2001: Established the Environmental Philosophy
- 2003: Amended the Risk Management Rules to the Risk Management and Compliance Rules
Established Zeon's Seven Articles Code of Conduct
- 2004: Established the Internal Reporting System
Published the Compliance Textbook I
- 2005: Published an English version of the Responsible Care Activity Report
Conducted third-party verification for the Responsible Care Activity Report
Published the Compliance Textbook II (Q&A Edition)
- 2006: Switched from publishing the Responsible Care Activity Report to publishing the CSR Report
- 2008: Published the Compliance Textbook I (Revised Edition)
- 2009: Signed the Responsible Care Global Charter
- 2010: Established the CSR Policy and CSR Code of Conduct
Published the Compliance Textbook (Q&A Edition)
Revised the CSR Implementation System and established a new System
Published the CSR Textbook
- 2011: Began using the CSR Matrix
- 2012: Started the CSR Core Projects (comprehensive Zeon social contributions package)
- 2013: Switched from publishing the CSR Report to publishing the Corporate Report
- 2017: Revised the CSR Matrix based on ISO 26000
Along with publishing the Corporate Report, also published a PDF version of the CSR Report on the corporate website

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CSR Implementation Plan

CSR Matrix

Based on the CSR Matrix used since 2011, we have established our goals for 2020 in each area and have worked to address CSR issues as a group.

In 2017, we revised the CSR Matrix based on ISO 26000. We have defined our areas of activity in light of current social circumstances, and have incorporated related initiatives into our new mid-term management plan that started in 2017. We are also looking at how we can contribute to the United Nations' Sustainable Development Goals (SDGs) as we incorporate CSR into our business activities.

Corporate Governance

Correlation with SDGs: Goal 16 (Peace, Justice and Strong Institutions) and Goal 17 (Partnerships for the Goals)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Decision-making with accountability and transparency <ul style="list-style-type: none"> Organizational decision-making is conducted appropriately based on internal regulations Business divisions carry out their operations using the PDCA cycle based on policies The process of decision-making takes into consideration social and environmental impacts 	△ System to develop internal regulations in the CSR implementation framework (Create internal rules → Apply to routine work) *For more information about current initiatives, see: • Zeon Corporation's Basic Policy on Corporate Governance: http://www.zeon.co.jp/content/200281514.pdf (Japanese only) • Corporate Governance Report http://www.zeon.co.jp/content/200322421.pdf (Japanese only)	<ul style="list-style-type: none"> Continue the CSR implementation framework and conduct periodic reviews based on social circumstances
Corporate governance <ul style="list-style-type: none"> Corporate governance functions effectively and reasonably Many business processes are handled using key business systems designed based on internal regulations, and the overall framework creates a very low level of error in processes When risks to corporate governance arise, systems operate to appropriately address the risks under the proper authority 	△ Corporate governance reporting (status of system for ensuring appropriateness of business affairs) △ Develop work systems △ Conduct corporate governance activities to satisfy Japan's Corporate Governance Code	<ul style="list-style-type: none"> Improve the level of corporate governance at Zeon Group companies
Risk management <ul style="list-style-type: none"> The business continuity management (BCM) system operates throughout Zeon Group, and various types of BCPs are revised regularly through trainings, etc. The Compliance Hotline is operated appropriately 	■ Study and establish business continuity management (BCM) △ Draft and periodically revise raw materials procurement plans and product supply plans (as part of BCPs) ■ Operate the Internal Reporting System	<ul style="list-style-type: none"> Revise BCPs with guidance from cases of major disasters Broadly establish the BCM system through drills Revise the list of risks and share them across Zeon Group Also include ESG risks in addition to business risks

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Human Rights

Correlation with SDGs: Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-Being), and Goal 5 (Gender Equality)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Discrimination and vulnerable groups Avoidance of complicity <ul style="list-style-type: none"> The section on respect for human rights and prohibition of discrimination in the CSR Code of Conduct has been shared with all Zeon Group companies and Zeon Group business partners, and compliance with the prohibitions on child labor and forced labor are confirmed 	<ul style="list-style-type: none"> ■ Publish the Corporate Report and release Zeon Group's CSR Code of Conduct and CSR Procurement Guidelines on the Zeon corporate website △ Build awareness in-house by having employees read the CSR Textbook and Compliance Textbook and take e-learning courses △ Conduct CSR education including CSR informational sessions 	<ul style="list-style-type: none"> ● Familiarize business partners with the CSR Code of Conduct and CSR Procurement Guidelines ● Create a database of external reports on respect for human rights at business partners (called the Supply Chain CSR Survey Database) ● Enact a policy on human rights and establish it throughout Zeon Group

Labor Practices

Correlation with SDGs: Goal 3 (Good Health and Well-Being), Goal 4 (Quality Education), Goal 5 (Gender Equality), Goal 8 (Decent Work and Economic Growth), and Goal 10 (Reduced Inequalities)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Employment <ul style="list-style-type: none"> Employment discrimination is eliminated, and equal employment opportunities are established (hiring) 	<ul style="list-style-type: none"> △ Hiring of non-Japanese employees (mid-career employees, exchange students) △ Expand the re-employment system for employees reaching the age of mandatory retirement <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● No. of employees rehired after mandatory retirement: 67 (82.7%) 	<ul style="list-style-type: none"> ● Expand hiring without regard for gender, nationality, race, age, disability, or other personal attribute ● Create the Supply Chain CSR Survey Database of labor practices at business partners
Labor conditions and social protections <ul style="list-style-type: none"> Workplaces are re-energized by promoting diversity and the fair and equitable treatment of personnel (appointments) 	<ul style="list-style-type: none"> △ Appropriately implement HR systems (self-assessments, evaluation system, etc.) △ Support for employee skills and career development △ Appropriately implement regulations for harassment prevention △ MD Committee activities by women members (including dialogue between senior management and women employees) △ Promotion of employment for people with disabilities <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● Percentage of employees with disabilities: 2.20% 	<ul style="list-style-type: none"> ● Advance diversity management ● Appoint more women employees to higher positions ● Appoint more employees who are non-Japanese nationals to higher positions ● Advance employment of older persons ● Create a systematic professional development system (including language education and overseas assignments)
Labor conditions and social protections <ul style="list-style-type: none"> Promote work-life balance (harmony between work and life) to enable people to work while also caring for children and/or sick parents 	<ul style="list-style-type: none"> ■ Flex time system and discretionary labor system using the project-operations model ■ Draft the general employer's action plan under the Law for Measures to Support the Development of the Next Generation ■ Acquire the Kurumin mark in Japan △ Childcare support systems (shortened working hours, overtime restrictions and exemptions, sick care leave, breast feeding time, etc.) △ Return-to-work program for employees taking childcare and caregiving leave 	<ul style="list-style-type: none"> ● Pursue improved work and time off balance (promote taking of annual paid vacation) ● Promote taking of childcare leave ● Improve use of caregiving leave ● Study a telecommuting system

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Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
<p>Occupational health and safety</p> <ul style="list-style-type: none"> Have strengthened initiatives for workplace health and safety and employees' health management, fewer overtime hours, and significantly reduced number of employees with mental health issues Rate of abnormal results in routine physical exams is at or below standard 	<ul style="list-style-type: none"> △ Conduct health management initiatives to maintain and improve employees' mental and physical health, as stated in our top management policy ● Conduct mental health education and run a committee for determining returning to work ● Ensure labor hours management and prevent excessive work ● Encourage leaving work on time and taking of annual paid vacation ● Detect changes in health early through stress checks ● Provide guidance to improve employee lifestyle habits 	<ul style="list-style-type: none"> ● Promote the health and well-being of all Zeon employees, a source of our strength ● Enhance mental health education ● Implement company policies and create conditions for better health and well-being
<p>Occupational health and safety</p> <ul style="list-style-type: none"> Increased trust in Zeon to protect local communities' safety and security by conducting emergency drills and other initiatives such as concluding disaster cooperation agreements All worksites have earned public trust by maintaining a safety record of zero incidents and accidents 	<ul style="list-style-type: none"> △ Implement the Safety Management Improvement Master Plan △ Implement age-degradation countermeasures, fail-safe measures in all projects, and learn from accidents at other companies and plants ● Cross-develop lessons from cases of disaster △ Eliminate safety incidents*1: Regularly conduct plant safety evaluations and audits △ Eliminate occupational accidents △ Improve safety in logistics △ Conduct comprehensive emergency-response drills and monthly drills by our self-defense emergency response teams ■ Conclude cooperation agreements with local governments (Cooperative Agreement for Disaster Prevention in Industrial Complexes) △ Participate in community disaster readiness activities <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● Plant safety evaluations conducted 100% ● Implement RC audits*2 (once/year or more for all 4 plants) ● Eliminate safety incidents: 2 safety incidents ● Eliminate occupational accidents: 2 occupational accidents resulting in lost work time and 0 serious accidents without lost work time ● Improve safety in logistics: 0 accidents in logistics 	<ul style="list-style-type: none"> ● Develop 4 safety activities across Zeon Group (develop in the supply chain) ● Enhance dialogue with local communities on safety, the environment, and quality <p>Targets</p> <ul style="list-style-type: none"> ● Plant safety evaluations conducted 100% ● Implement RC audits (once/year or more for all 4 plants) ● Eliminate safety incidents: 0 safety incidents ● Eliminate occupational accidents: 0 occupational accidents resulting in lost work time and 0 serious accidents without lost work time ● Improve safety in logistics: 0 accidents in logistics ● Rate of implementing these indicators at Group companies
<p>HR development and training at workplaces</p> <ul style="list-style-type: none"> Have proactively enhanced awareness and made further improvements in the areas of health and safety through comprehensive education 	<ul style="list-style-type: none"> △ Provide training to enhance accident prevention awareness (4 plants, 1 Group company) (e.g., education using accident case studies, hands-on training) △ Promote the 5S's → 3S's 	<ul style="list-style-type: none"> ● Develop safety education across Zeon Group (develop in the supply chain) ● Develop the 3S's across Zeon Group (develop in the supply chain)

*1 Safety incidents

Defined in company regulations as the occurrence of a fire, explosion, leak, damage, failure, runaway reaction, or similar event.

Or, even without an actual occurrence, the possibility of such an event if actions had been delayed, and observation of signs before such an event.

*2 RC audits

Audits based on Zeon's Responsible Care Policy. RC audits use specialized indicators and are headed by the Environmental and Safety Affairs Department General Manager.

Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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Environment

Correlation with SDGs: Goal 6 (Clean Water and Sanitation), Goal 7 (Affordable and Clean Energy), Goal 9 (Industry, Innovation and Infrastructure), Goal 12 (Responsible Consumption and Production), Goal 13 (Climate Action), Goal 14 (Life Below Water), and Goal 15 (Life on Land)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
<p>Pollution prevention</p> <p>Climate change mitigation and adaptation</p> <ul style="list-style-type: none"> • All plants received public recognition for their environmental impact reductions • Proactively enhance awareness and make further improvements in the areas of the environment and energy conservation through comprehensive education 	<p>△ Reduce emissions of hazardous substances, industrial waste, and impacts on atmospheric and water environments</p> <p>■ Improve energy conservation in Responsible Care audits, the Safety Management System, the Environment Management System based on ISO 14001, and the Energy Conservation Promotion Committee</p> <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● Zero environmental incidents* ● Environmental impact reductions ● Acrylonitrile emissions: 4.1 tons ● Final landfill disposal (non-consolidated): 1.7 tons ● Final landfill disposal (Zeon Group): 2.9 tons ● Per-unit energy consumption: 62% ● Per-unit CO₂ emissions: 60% 	<ul style="list-style-type: none"> ● Environmental management using the multiple systems listed on the left <p>Targets</p> <ul style="list-style-type: none"> ● Zero environmental incidents ● Environmental impact reduction targets ● Acrylonitrile emissions: 5 tons or less ● Final landfill disposal (non-consolidated): 5 tons or less ● Final landfill disposal (Zeon Group): 7.5 tons or less ● Per-unit energy consumption: 64% ● Per-unit CO₂ emissions: 67%
<p>Climate change mitigation and adaptation</p> <ul style="list-style-type: none"> • Have developed and launched a series of environmentally friendly products 	<p>■ Develop fuel-efficient tire components, low-temperature toners, ZEORORA® with zero ODP, and binders for lithium-ion batteries</p>	<ul style="list-style-type: none"> ● R&D focused on environment-related social issues

*Environmental incidents

Defined in internal regulations as the failure to meet environment-related rules and regulations and voluntary standards as well as situations in which standards were met but may not have been if regular measures had been taken. And, when there is no set standard, any instance when a complaint is received or could have been received if the situation had been left unattended.

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Fair Operating Practices

Correlation with SDGs: Goal 10 (Reduced Inequalities) and Goal 16 (Peace, Justice and Strong Institutions)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
<p>Fair competition</p> <ul style="list-style-type: none"> Are complying with all laws and regulations, ordinances, agreements, and internal regulations, and acting with high ethical standards based on being a model for society 	<ul style="list-style-type: none"> ■ Enact and implement management regulations including those on insider trading and appropriate disclosure △ Comply with internal regulations including the Export Security Control Regulations △ Appropriately implement regulations to comply with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (Antimonopoly Act) △ Compliance with the Subcontract Act and the Act for Securing the Proper Operation of Worker Dispatching Undertakings (prevention of falsified contracts) 	<ul style="list-style-type: none"> ● Compliance with internal regulations ● Ongoing legal training and information sharing using the Compliance Textbook and other materials ● Education on the CSR Code of Conduct
<p>Fair competition</p> <ul style="list-style-type: none"> Management policies are broadly understood and compliance awareness is widespread. As a result, by proactively conducting CSR activities and adapting to environmental changes, business continuity as well as sustainable development are achieved 	<ul style="list-style-type: none"> ■ Regulations in the CSR Code of Conduct and the CSR Procurement Guidelines △ Employees read the CSR Textbook and Compliance Textbook and take e-learning courses △ Conduct CSR education including holding CSR informational sessions △ Hold workshops on legal and regulatory compliance △ Legal compliance inspections △ Regularly revise internal regulations (to satisfy legal amendments) 	<ul style="list-style-type: none"> ● Ongoing compliance education ● Revise the Compliance Textbook and the CSR Textbook and hold related informational meetings ● Ongoing CSR briefings by the head of the CSR division ● Support the establishment of compliance systems at Zeon Group companies outside Japan (develop in the supply chain) ● Shift from compliance to sustainability (promote understanding among management and establish among employees) ● Become a signatory to the United Nations Global Compact
<p>Fair competition</p> <ul style="list-style-type: none"> Information is disclosed quickly and appropriately, and market value has increased (including negative information regarding business conditions, CSR, risks, etc.) 	<ul style="list-style-type: none"> △ Hold financial results briefings △ Publish various reports △ Release information via the corporate website △ Hold briefings for individual investors and analysts and respond to media inquiries △ Hold press conferences for mass media outlets and others 	<ul style="list-style-type: none"> ● Enhance the corporate website (IR, CSR information) ● Strengthen the communication system (PR) ● Release information for ESG investors
<p>Social responsibility in the value chain</p> <ul style="list-style-type: none"> Select business partners based on the CSR Procurement Guidelines and periodically confirm the Guidelines' status of implementation 	<ul style="list-style-type: none"> △ Comply with laws and regulations on competition including the Antimonopoly Act △ Satisfy the RoHS Directive, bans on substances, etc. △ Purchasing following the CSR Procurement Guidelines 	<ul style="list-style-type: none"> ● Develop and establish the CSR Code of Conduct and CSR Procurement Guidelines in the supply chain ● Build the Supply Chain CSR Survey Database

Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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Consumer Issues

Correlation with SDGs: Goal 9 (Industry, Innovation and Infrastructure), Goal 12 (Responsible Consumption and Production), and Goal 16 (Peace, Justice and Strong Institutions)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Protecting consumers' health and safety <ul style="list-style-type: none"> Both quality and cost are globally first rate 	<ul style="list-style-type: none"> △ Have a quality management system based on ISO 9001 △ Manage quality assurance risks (product liability lawsuits, supply obligations, product recalls, and credibility loss due to rumors) △ Improve processes (reduce losses, improve consistency) △ Develop activities for production innovations 	<ul style="list-style-type: none"> ● Establish systems to definitively reduce complaints, process abnormalities, and defects, prevent defective products from leaving Zeon, create corporate quality trusted by customers, and further improve customer satisfaction ● Develop initiatives for chemical substance regulations ● Develop Zeon's quality management system at Zeon Group companies outside Japan and at outsourcing partners
Sustainable consumption <ul style="list-style-type: none"> Developed and launched a series of products that are beneficial to society 	<ul style="list-style-type: none"> △ Develop business activities based on business plans 	<ul style="list-style-type: none"> ● R&D, manufacturing, and sales focused on consumer-related social issues

Community involvement

Correlation with SDGs: Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-Being), Goal 4 (Quality Education), Goal 9 (Industry, Innovation and Infrastructure), Goal 11 (Sustainable Cities and Communities), and Goal 17 (Partnerships for the Goals)



Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Community involvement, education, and culture <ul style="list-style-type: none"> Zeon's social contributions are understood, receive recognition, and are supported 	<ul style="list-style-type: none"> △ Develop the CSR Core Projects (social contribution activities by Group as a whole, among locations, and at individual worksites) 	<ul style="list-style-type: none"> ● Develop the CSR Core Projects based on the defined Zeon Group activities policy
Community involvement <ul style="list-style-type: none"> An organization for promoting volunteer activities among employees including retirees is established and employees actively volunteer in various ways 	<ul style="list-style-type: none"> △ Upgrade and enhance the system for promoting volunteer activities (establish a system for taking leave to volunteer) △ Introduce volunteer activities and promote and support participation in them (Volunteering to support reconstruction from earthquakes, etc.) <p>FY 2016 Results Number of employees participating in volunteer tours: 68 (cumulative total of 365 employees)</p>	<ul style="list-style-type: none"> ● Raise employee awareness for social contributions ● Conduct CSR education including CSR informational sessions ● Establish a social contribution policy for the entire Zeon Group (e.g., on water) ● Create a system to support volunteering (volunteer registration system, etc.) ● Create opportunities for social contributions from exchanges with local councils of social welfare, non-governmental organizations and non-profit organizations
Community involvement <ul style="list-style-type: none"> Guidelines for coexisting with local communities have been created and are used, and good relations have been built with local communities 	<ul style="list-style-type: none"> △ Donations and charity activities (Furukawa Scholarship, expenses for community promotions, Red Cross, etc.) △ Maintain good community relations and have community exchanges <ul style="list-style-type: none"> ● Sponsor and participate in community festivals and events including summer festivals at plants ● Community cleanup activities ● Plant tours (receive plant visitors, internships) 	<ul style="list-style-type: none"> ● Maintain and expand exchanges with local communities ● Support the reconstruction of the Tohoku region ● Establish and implement ongoing ways to support the reconstruction from the destructive earthquake ● Actively participate in community activities ● Revitalize social contribution activities through local social welfare councils ● Create standards for supporting disaster recovery

Corporate Governance

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Targets and Results

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
<p>Decision-making with accountability and transparency</p> <ul style="list-style-type: none"> Organizational decision-making is conducted appropriately based on internal regulations Business divisions carry out their operations using the PDCA cycle based on policies The process of decision-making takes into consideration social and environmental impacts 	<p>△ System to develop internal regulations in the CSR implementation framework (Create internal rules → Apply to routine work)</p> <p>*For more information about current initiatives, see:</p> <ul style="list-style-type: none"> Zeon Corporation's Basic Policy on Corporate Governance: http://www.zeon.co.jp/content/200281514.pdf (Japanese only) Corporate Governance Report http://www.zeon.co.jp/content/200322421.pdf (Japanese only) 	<ul style="list-style-type: none"> Continue the CSR implementation framework and conduct periodic reviews based on social circumstances
<p>Corporate governance</p> <ul style="list-style-type: none"> Corporate governance functions effectively and reasonably Many business processes are handled using key business systems designed based on internal regulations, and the overall framework creates a very low level of error in processes When risks to corporate governance arise, systems operate to appropriately address the risks under the proper authority 	<p>△ Report corporate governance (status of system for ensuring appropriateness of business affairs)</p> <p>△ Develop work systems</p> <p>△ Conduct corporate governance activities to satisfy Japan's Corporate Governance Code</p>	<ul style="list-style-type: none"> Improve the level of corporate governance at Zeon Group companies
<p>Risk management</p> <ul style="list-style-type: none"> The business continuity management (BCM) system operates throughout Zeon Group, and various types of BCPs are revised regularly through trainings, etc. The Compliance Hotline is operated appropriately 	<ul style="list-style-type: none"> ■ Study and establish business continuity management (BCM) △ Draft and periodically revise raw materials procurement plans and product supply plans (as part of BCPs) ■ Operate the Internal Reporting System 	<ul style="list-style-type: none"> Revise BCPs with guidance from cases of major disasters Broadly establish the BCM system through drills Revise the list of risks and share them across Zeon Group Also include ESG risks in addition to business risks

Corporate Governance

Basic Policy on Corporate Governance

Zeon Corporation aims to increase profits and enhance corporate value on an ongoing basis while respecting and balancing the various interests of its shareholders and other diverse stakeholders. To this end, we are continuing efforts to establish a system that enables efficient and sound corporate management through corporate governance.

Putting in place a corporate governance system allows us to clarify the functions and roles of each organizational entity within the company and to carry out rapid decision-making and execution. We are also improving corporate transparency through appropriate monitoring and disclosure of business activities and their effects.

Basic Policy on Corporate Governance

<http://www.zeon.co.jp/content/200281514.pdf>

(Japanese only)

Corporate Governance Report

<http://www.zeon.co.jp/content/200322421.pdf>

(Japanese only)

The main components of our Corporate Governance System are summarized below.

Board of Directors

The Board of Directors meets, in principle, every month with corporate auditors in attendance to ensure compliance with applicable laws and the Articles of Incorporation in the execution of business. In addition to its statutory duties, the role of the Board of Directors is to make important decisions about basic management policy, strategy, and other aspects of business execution. The Board of Directors currently consists of 12 directors, including three outside directors.

Executive Committee

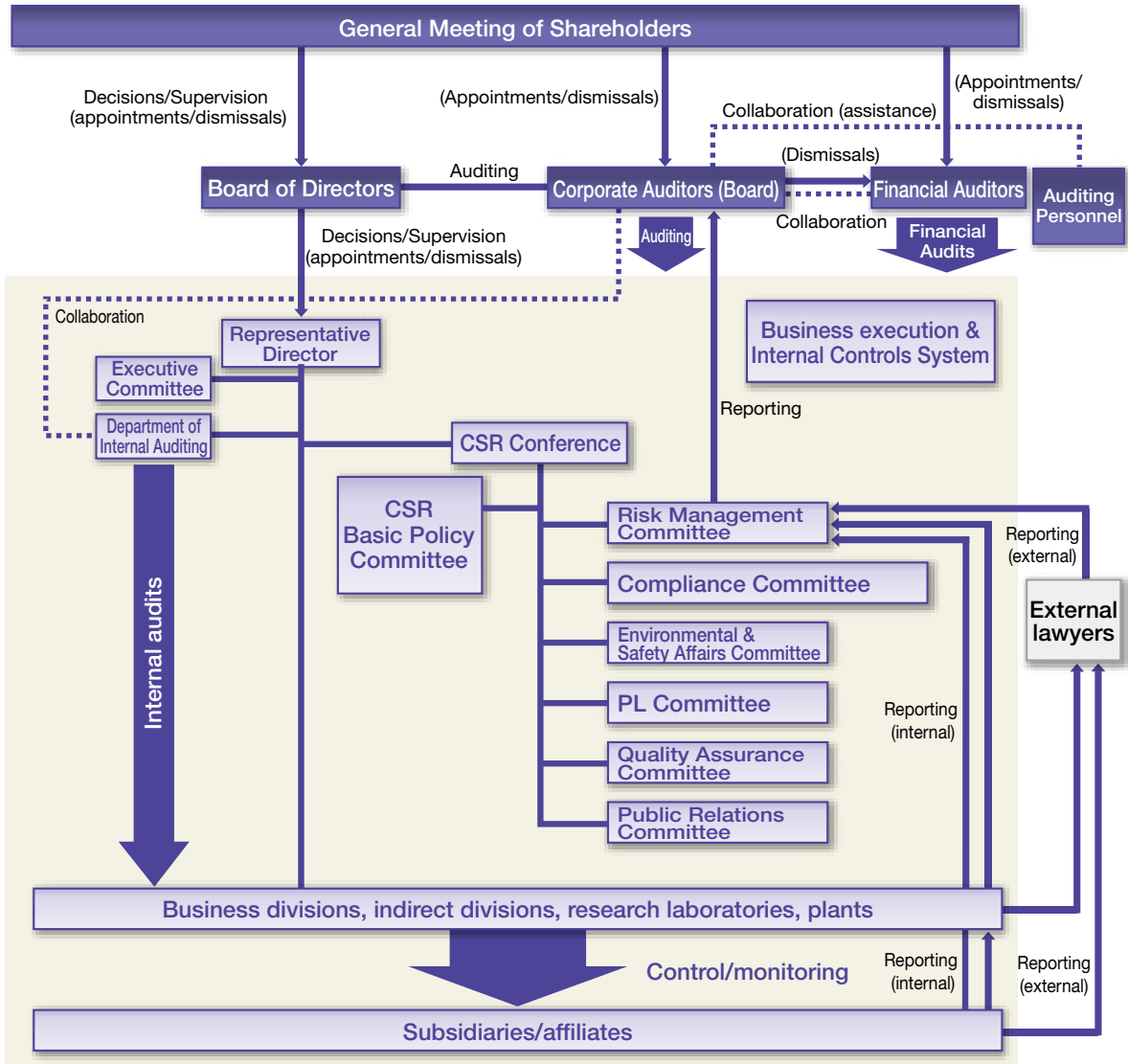
The Executive Committee, in accordance with the Executive Committee Rules, comprises the President and executive officers ranked senior corporate officer and above, meets twice a month in principle to examine and make decisions on important business matters after due deliberation involving consultation with attending full-time corporate auditors. Important business matters stipulated in the Board of Director Rules are examined and decided by the Board of Directors.

Corporate Auditors

The Board of Corporate Auditors comprises five members, including three outside corporate auditors. The Board reports, discusses, and adopts resolutions on important business matters. In accordance with the auditing guidelines established by the Board of Corporate Auditors, each corporate auditor audits directors' execution of their duties through various means, such as attending Board of Directors meetings and monitoring business operations, including at subsidiaries' operations.

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Corporate Governance System



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Risk Management

Risk Management Framework

The Risk Management Committee leads Zeon's risk management. Activities to prevent law violations and to comply with laws and regulations are conducted under the Compliance Committee (For more information about the framework, see Compliance (→ P56)).

Risk Management Committee FY 2016 Results

- Handle incidents as they occur and take steps to prevent their recurrence
- Enhance risk and crisis control measures
Example: Based on business continuity plans (BCPs), hold comprehensive, companywide disaster drills that simulate a major earthquake

Internal Reporting System

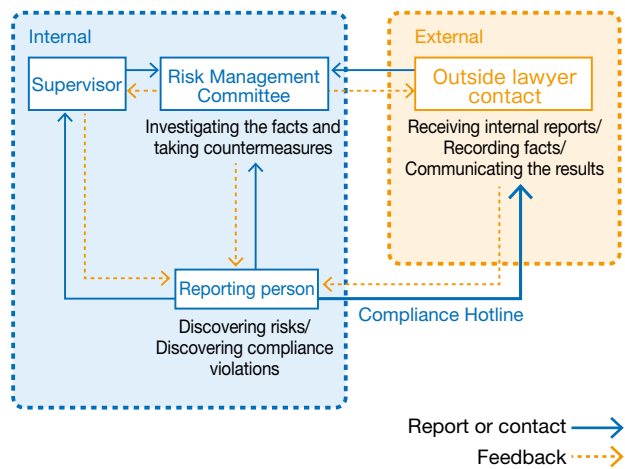
Zeon established its internal reporting system to quickly collect information on potential risks and facilitate their resolution. Per the rules on reporting risk-related information, reports can be made not only to one's supervisor or the Risk Management Committee directly, but also by calling the Compliance Hotline, which connects the caller to an external lawyer. No person who reports* a matter of concern will suffer any adverse consequences as a result of making a report.

Internal reports: Cumulative total of eight incidents during the last eight years (FY 2009–2016).

The Risk Management Committee has appropriately dealt with each of these incidents by conducting an investigation into the reported details and instructing internal organizations to institute measures accordingly.

*Zeon employees (including seconded employees), temporary employees, and executives of contractors that work at our worksites have the right to report matters of concern.

Internal Reporting Flowchart



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Environment

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Environmental Data for Zeon Worksites and Group Companies ▶▶▶ http://www.zeon.co.jp/csr_e/report.html

Environmental Philosophy

Philosophy and Policy for Safety and Environmental Activities

Responsible Care refers to a voluntary initiative by businesses that manufacture or handle chemical substances to achieve continuous improvement in health, safety, and environmental (HSE) performance across the entire life cycle of such substances—from development and manufacture, through distribution and use, and ending in final consumption or disposal—based on the principles of independent decision-making and personal responsibility. These businesses publicly commit to Responsible Care in their business policies, implement HSE-related actions, and strive to improve their HSE performance.

At Zeon, we have practiced the Responsible Care philosophy as a member of the Japan Responsible Care Council (now the Japan Chemical Industry Association Responsible Care Committee) since its inception in 1995. In 1998, we established our own Responsible Care Policy to define our conduct guidelines based on the Responsible Care philosophy.

Environmental Philosophy

Established in 2001, our Environmental Philosophy guides our efforts to deliver products with consistent quality through safe and reliable production while reducing our environmental impacts.

Environmental Philosophy (Established August 2001)

1. Environmental protection is a mission of a socially responsible organization
2. Our basic belief is that environmental protection can be achieved with innovative technology
3. Environmental protection will be achieved when all employees work together with a sense of mission to overcome challenges

Responsible Care Policy

Responsible Care Policy (Established June 1998)

1. Prioritize the environment and safety

Protecting the environment and ensuring safety are preconditions for all business activities and are the most important priorities. We will work continuously to enact full accident prevention countermeasures, and provide education and training for all employees to prevent safety and environmental accidents.

2. Collect and distribute the latest information on chemical products

We will collect, store and manage the latest information required for the appropriate handling, use and disposal of chemical products, and distribute this information to employees and users.

3. Minimize the discharge of toxic chemicals and waste

We will work to reduce the discharge of hazardous chemical substances, minimize waste, and develop technology for recycling and reusing materials.

4. Promote activities for conserving resources and energy

We will aim to dramatically reduce the amount of energy we use and help alleviate global warming by developing innovative technology and actively promoting resource and energy conservation activities that involve all employees.

5. Take the environment and safety into account when developing new processes and products and performing quality assurance

We will perform thorough environmental and safety evaluations from the initial stages of research, develop technology and products that take the environment and safety into account, and work to maintain and improve the quality of technology and products.

6. Live together with society

We will strictly observe regulations related to the environment and safety, whether the regulations come from the local community, the national government, overseas, or organizations to which we belong. While cooperating in these activities, we will work to enhance our communication with the local community and society in order to convey a better understanding of Zeon's activities and further strengthen the trust that society has in our company.

7. Perform continuous improvements

We will continuously improve our environment safety management and technology by operating a Responsible Care Audit, the Safety Management System, an Environment Management System based on ISO 14001, and an Occupational Health and Safety Management System.

Environmental and Safety Management

We have built Environmental and Safety Management Systems based on the Responsible Care philosophy, and our plants have obtained ISO 14001 certification. Our goal is to ensure the safety of all persons at our worksites and plants.

Overview of Environmental and Safety Management Systems

President's Annual Policy and Safety Management Improvement Master Plan

These documents are created by top management.

Annual Environment and Safety Policy

The Environmental and Safety Affairs Department General Manager creates this policy after the President's Annual Policy and the Safety Management Improvement Master Plan are released. The Annual Environment and Safety Policy is reviewed by the CSR Conference and finalized by the President.

Annual Worksite Manager's Policy and Annual Worksite Safety Management Improvement Master Plan

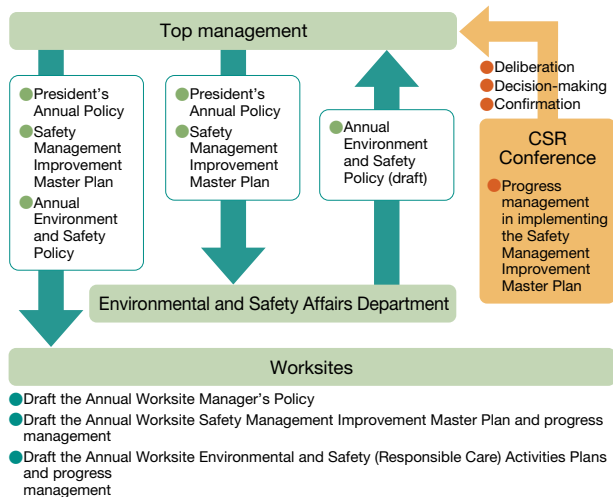
Worksite managers create these documents after the President's Annual Policy and the Safety Management Improvement Master Plan are released.

Annual Worksite Environmental and Safety (Responsible Care) Activities Plans

Worksite managers create the Activities Plans after the companywide Annual Environment and Safety Policy is released.

- **Progress Management**
- **Safety Management Improvement Master Plan:** Progress verified by the CSR Conference
- **Annual Worksite Safety Management Improvement Master Plan:** Progress verified by the worksite manager during worksite inspections
- **Annual Worksite Environmental and Safety Activities Plans:** Progress verified by the worksite manager during worksite inspections

Environmental and Safety Management Systems



Audits

Audits assess whether our management systems are functioning normally.

Worksite Responsible Care audits cover environmental and safety matters and are headed by the Environmental and Safety Affairs Department General Manager. These audits have two parts: the Responsible Care audit and the Responsible Care dialogue.

Responsible Care Audits

- Audits using specialized indicators to monitor the progress of Responsible Care activities.
- These audits also include auditing conducted for worksites that have Certified Completion and Process Safety Inspectors for High-Pressure gas.
- The progress of improvements in areas where audits uncovered such needs is verified using the Audit Findings Improvement Plan and Progress Report.

Responsible Care Dialogues

- A venue for worksite members and management to consider, discuss, and resolve worksite environmental and safety issues that are difficult to identify through audits.

Responsible Care Audits at Group Companies

Group company Responsible Care audits cover Group company Responsible Care activities and are headed by the Environmental and Safety Affairs Department General Manager. The progress of improvements in areas where audits uncovered such needs is verified using the Audit Findings Improvement Plan and Progress Report.

- FY 2016: Conducted for 10 worksites at 8 Group companies

Internal Plant Audits

Internal plant audits are conducted at plants.

- Plant manager inspections: Inspections of the progress of Responsible Care implementation conducted by the plant manager (at least once/year)
- Environmental Management System (EMS) internal audits

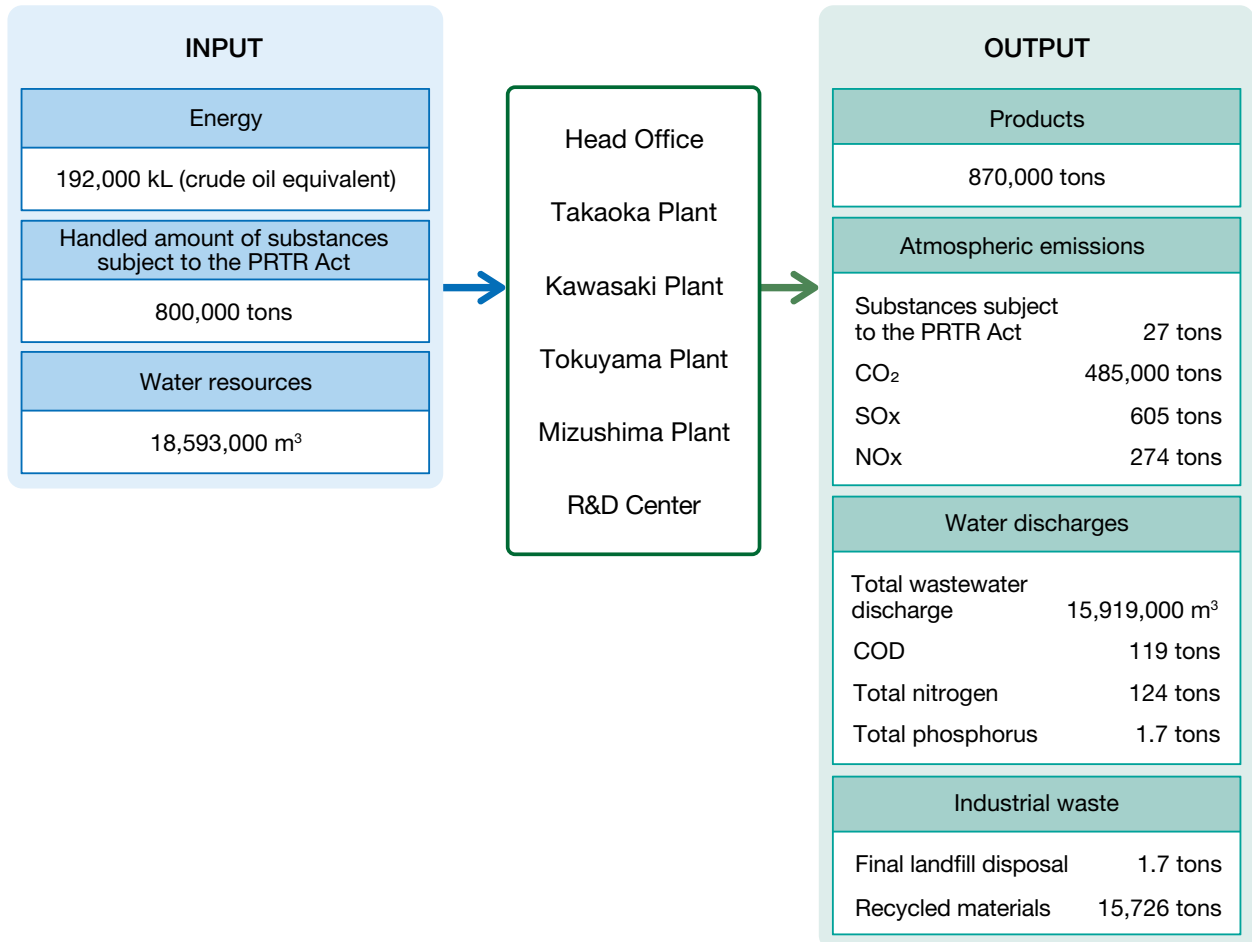
ISO 14001 certification

Site	Year certified
Takaoka Plant	1998
Kawasaki Plant	1999
Tokuyama Plant	1999
Mizushima Plant	1999

Site	Year certified
Tohpe Head Office/Ibaraki Office	2000
Tohpe Mie Office	2002
Zeon Kasei	2004 (Head Office including research laboratory)
Zeon Polymix	2004
RIMTEC	2004
Optes Hokuriku Plant	2005
Optes Sano Plant	2005
Tokyo Zairyo	2006
Zeon Chemicals Yonezawa	2006
Zeon North	2007

Overview of Environmental Impacts

We procure raw materials for chemical substances, and consume energy and water resources in the production and sales of our materials and chemical substance products. While emitting substances that impact water and atmospheric environments is unavoidable in product manufacturing, we are implementing an ongoing cycle of improvements to minimize these emissions.



Targets and Results

The targets and results of our environmental conservation initiatives as part of our Responsible Care activities are as follows.

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<p>Climate change mitigation and adaptation</p> <ul style="list-style-type: none"> • Have developed and launched a series of environmentally friendly products 	<p>■ Develop fuel-efficient tire components, low-temperature toners, ZEORORA[®] with zero ODP, and binders for lithium-ion batteries</p>	<ul style="list-style-type: none"> ● R&D focused on environment-related social issues

*Environmental incidents

Defined in internal regulations as the failure to meet environment-related rules and regulations and voluntary standards as well as situations in which standards were met but may not have been if regular measures had been taken. And, when there is no set standard, any instance a complaint is received or could have been received if the situation had been left unattended.

There were no environmental irregularities in FY 2016.

Zeon Corporation worksites in Japan continue to maintain zero industrial waste emissions, which were first achieved in FY 2011. Zeon Group companies achieved the target of 0.3% final landfill volume based on the FY 2007 volume of more than 600 tons. We will continue to maintain this final landfill rate. We will continue to reduce our unit energy consumption and CO₂ emissions targeting an average reduction of 1% per year.

Economic Indicators of Environmental Performance (Environmental Accounting)

We began introducing environmental accounting into our operations in FY 2000 in accordance with the Guidelines for Introducing an Environmental Accounting System (Ver. 2000) published by Japan's Ministry of the Environment (MOE), and have released environmental accounting statements since the 2001 edition of the Responsible Care Activity Report. This CSR report presents key data from our environmental accounting statements in FY 2016 as recommended in the Environmental Accounting Guidelines 2005 (MOE), Environmental Accounting Guidelines for Chemical Companies (JCIA, 2003), and Environmental Conservation Cost Categories 2003 (MOE).

Scope: Zeon Corporation in Japan (Zeon Head Office, Takaoka Plant, Kawasaki Plant, Tokuyama Plant, Mizushima Plant, R&D Center);
 Period: April 1, 2016 to March 31, 2017

Environmental Conservation Costs

Environmental Conservation Expenses

We are developing technologies to minimize the environmental impact of our wastewater and reduce the amount of residual volatile substances in our products. We are focused in particular on developing technologies, designing equipment, and standardizing operating procedures to reduce emissions of butadiene and acrylonitrile, both hazardous air pollutants, and to reduce the environmental impact of our wastewater based on such parameters as total nitrogen (TN) and chemical oxygen demand (COD).

We are also working to develop eco-friendly products and innovative, energy-efficient processes.

Environmental conservation costs	FY 2016 (million JPY)	
	Investment amount	Expense
(1) Costs within the business area	429	3,205
Breakdown		
• Pollution prevention costs	352	2,456
• Global environmental protection costs	50	138
• Resource recycling costs	26	611
(2) Upstream and downstream costs	0	0
(3) Management costs	27	125
(4) R&D costs	64	918
(5) Social activities costs	0	48
(6) Environmental damage response costs	0	68
Total	520	4,363

Economic Effects

We strive to use oils and other byproducts from our production and manufacturing processes in economically effective ways such as converting them to fuel and recycling them, or by other means. We are also working to recycle the metal resources in empty drums and containers. To conserve energy, we recover heat generated in heat-intensive distillation processes.

Economic Effects Resulting from Environmental Conservation Measures

Effects	Unit: million JPY
Cost reductions from energy savings	13
Cost reductions from reducing emissions, recovery, and reuse of solvents and catalysts	1,325
Total	1,338

Environmental and Safety Investment

In addition to environmental investment related to facilities to prevent pollution and conserve energy and resources, we strive to improve safety through ongoing safety investment aimed at improving safety and eliminating hazards.

	Unit: million JPY
Environmental conservation	471
Safety related	1,972
Total	2,443

Environmental Conservation Outcomes

Environmental Conservation Outcomes (Physical Outcomes)

Environmental impact indicators	FY 2016 results	Compared to FY 2015
SOx emissions (tons)	605	-18
NOx emissions (tons)	274	+21
COD emissions (tons)	119	±0
CO ₂ emissions (tons)	485,059	-67,881
Industrial waste sent to landfills (tons)	1.7	-1.8
Total emissions of substances subject to the PRTR Act (tons)	27.4	-2.7

Greenhouse Gas Emission Reductions and Energy Conservation

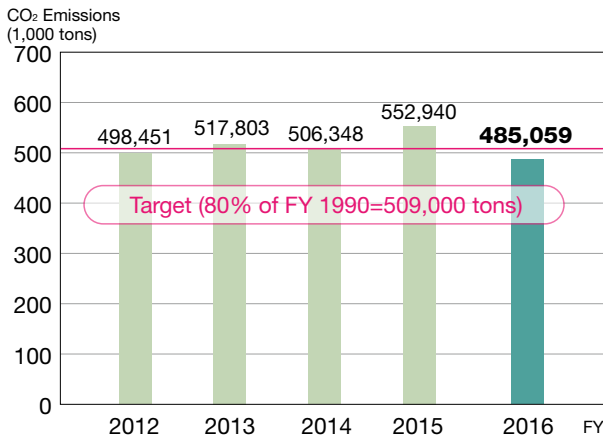
Initiatives to Reduce Greenhouse Gas (CO₂) Emissions

By FY 2020, we aim to reduce CO₂ emissions from fuels defined in Japan's Act on the Rational Use of Energy ("Energy Conservation Act") to 80% of FY 1990 CO₂ emissions levels. We added CO₂ emissions reduction outcomes to the evaluation parameters of ZΣ* in FY 2010, and are working to reduce CO₂ emissions companywide.

We achieved our annual CO₂ emissions target for FY 2016 with emissions of approximately 485,000 tons.

*ZΣ: Initiatives to improve our corporate soundness that require the full mobilization of Zeon Group capabilities. These initiatives used to be called "ZΣ Activities," but after evolving and becoming established, they are now simply referred to as "ZΣ."

Change in CO₂ Emissions



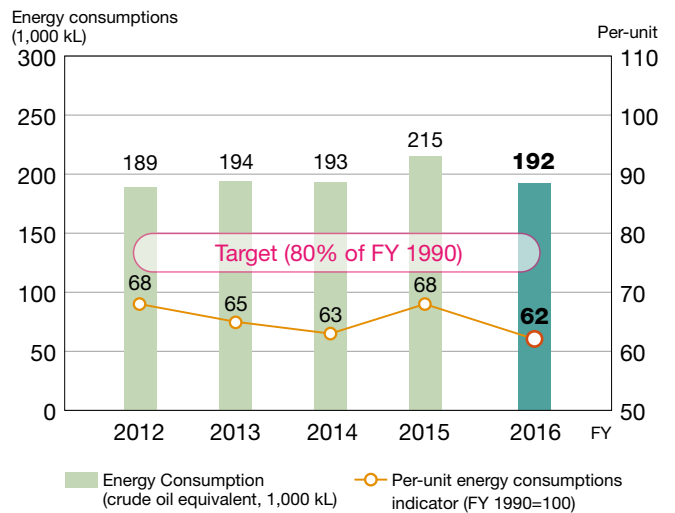
Initiatives to Conserve Energy

In FY 2016, we consumed energy equivalent to burning approximately 192,000 kiloliters of crude oil, or 62% of our FY 1990 baseline. We plan to improve our per-unit energy consumptions indicator* by an average of 1% per year going forward.

In FY 2009, we achieved the JCIA target (for FY 2008-2012) of per-unit energy consumptions indicator of 80% of the FY 1990 baseline, and have maintained this level through FY 2015. Since FY 2010, we have been implementing a plan to improve our average annual per-unit energy consumptions by 1% per year.

*Per-unit energy consumptions indicator: Guideline for making energy-efficiency comparisons. Here, energy-efficiency comparisons use FY 1990 as the baseline. (FY 1990=100)

Energy Consumption and Per-unit consumptions indicator

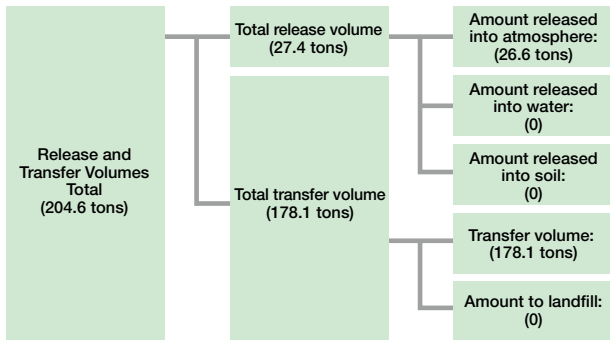


Chemical Substances Management

PRTR Initiatives Chemical Substances

We are implementing companywide initiatives to reduce release and transfer of substances subject to Japan's PRTR Act.

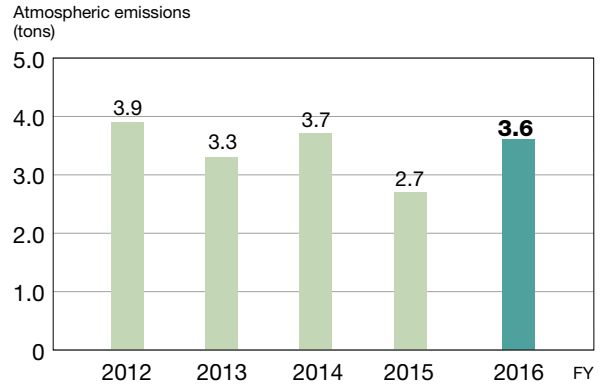
Release and Transfer Volumes of Substances Subject to the PRTR Act (FY 2016)



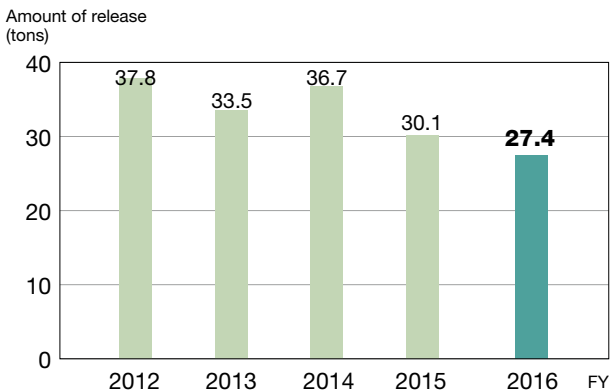
Atmospheric Emission Reductions of Hazardous

We are systematically reducing emissions of butadiene and acrylonitrile, which are among the substances requiring priority action under the Japan's Air Pollution Control Act.

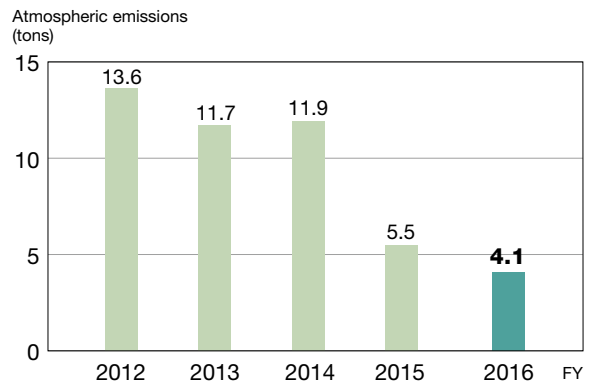
Butadiene Emissions



Release of Substances Subject to the PRTR Act



Acrylonitrile Emissions



Detailed Release and Transfer Volumes of Substances Subject to the PRTR Act (FY 2016, 4 plants + R&D Center)

Government designated no.	Substance	Handled amount (tons)	Released into atmosphere (tons)	Released into water (tons)	Total release volume (tons)	Transfer volume (tons)
2	Acrylamide	79.0	0.0	0.0	0.0	0.0
3	Ethyl acrylate	2,095	5.7	0.0	5.7	0.0
4	Acrylic acid and its water-soluble salts	65.3	0.0	0.0	0.0	0.0
6	2-Hydroxyethyl acrylate	19.3	0.0	0.0	0.0	0.0
7	n-Butyl acrylate	2,969	1.7	0.0	1.7	6.8
8	Methyl acrylate	10.9	0.3	0.0	0.3	0.0
9	Acrylonitrile	24,483	4.1	0.0	4.1	0.0
13	Acetonitrile	0.0	0.0	0.0	0.0	0.0
20	2-Aminoethanol (monoethanolamine)	7.0	0.0	0.0	0.0	0.0
28	Allyl alcohol	0.0	0.0	0.0	0.0	0.0
29	1-Allyloxy-2,3-epoxypropane	17.9	0.0	0.0	0.0	0.2
30	n-Alkylbenzenesulfonic acid and its salts (alkyl C=10-14)	1,146	0.0	0.0	0.0	0.0
36	Isoprene	127,664	3.6	0.0	3.6	0.1
53	Ethylbenzene	54.7	0.0	0.0	0.0	0.0
56	Ethylene oxide	754	0.0	0.0	0.0	0.0
59	Ethylenediamine	3.6	0.0	0.0	0.0	0.0
60	Ethylenediamine tetraacetic acid	19.0	0.0	0.0	0.0	0.0
65	Epichlorohydrin	0.0	0.0	0.0	0.0	0.0
68	1,2-Epoxypropane	27.2	0.0	0.0	0.0	0.0
80	Xylene	2,220	0.2	0.0	0.2	3.0
134	Vinyl acetate	172	0.1	0.0	0.1	0.0
190	Dicyclopentadiene	140,527	0.2	0.0	0.2	0.4
202	Divinylbenzene	6.1	0.0	0.0	0.0	0.0
203	Diphenylamine	4.3	0.0	0.0	0.0	0.0
207	2,6-Di-tert-butyl-4-cresol	291	3.7	0.0	3.7	0.0
218	Dimethylamine	0.3	0.0	0.0	0.0	0.0
220	Water-soluble salts of dimethyldithiocarbamic acid	16.5	0.0	0.0	0.0	1.1
230	N-(1,3-Dimethylbutyl)-N'-phenyl-p-phenylenediamine	28.7	0.0	0.0	0.0	0.0
232	N,N-dimethylformamide	246	0.0	0.0	0.0	1.4
240	Styrene	38,710	0.5	0.0	0.5	18.1
243	Dioxins	0.0	0.0	0.0	0.0	0.0
259	Tetraethylthiuram disulfide	15.0	0.0	0.0	0.0	0.0
274	Tert-dodecanethiol	737	0.0	0.0	0.0	0.4
277	Triethylamine	32.6	0.0	0.0	0.0	0.0
296	1,2,4-Trimethylbenzene	343	0.0	0.0	0.0	0.0
297	1,3,5-Trimethylbenzene	343	0.0	0.0	0.0	0.0
300	Toluene	3,815	0.2	0.0	0.2	137.0
302	Naphthalene	432	0.0	0.0	0.0	0.0
308	Nickel	87.4	0.1	0.0	0.1	0.0
309	Nickel compounds	110.4	0.0	0.0	0.0	0.0
333	Hydrazine	0.3	0.0	0.0	0.0	0.0
338	2-Vinylpyridine	91.4	0.0	0.0	0.0	0.0
349	Phenol	95.8	0.0	0.0	0.0	0.0
351	1,3-Butadiene	446,258	3.6	0.0	3.6	0.0
355	Bis (2-ethylhexyl) phthalate	109	0.0	0.0	0.0	0.0
392	n-Hexane	550	1.9	0.0	1.9	9.2
395	Water-soluble salts of peroxodisulfuric acid	128	0.0	0.0	0.0	0.0
400	Benzene	4,496	0.0	0.0	0.0	0.0
407	Polyoxyethylene alkyl ether	47.5	0.0	0.0	0.0	0.0
408	Polyoxyethylene octylphenyl ether	5.9	0.0	0.0	0.0	0.0
410	Polyoxyethylene nonylphenyl ether	10.2	0.0	0.0	0.0	0.0
411	Formaldehyde	2.0	0.0	0.0	0.0	0.0
414	Maleic anhydride	94.5	0.6	0.0	0.6	0.0
415	Methacrylic acid	1,941	0.0	0.0	0.0	0.0
417	2,3-Epoxypropyl methacrylate	7.9	0.0	0.0	0.0	0.0
420	Methyl methacrylate	378	0.1	0.0	0.1	0.4
436	α-Methylstyrene	299	0.0	0.0	0.0	0.0

The PRTR Act specifies amounts in kilograms to two significant figures; however, this report specifies amounts in tons. 0.0 indicates less than 0.005 tons. Dioxins are expressed in units of mg-TEQ.

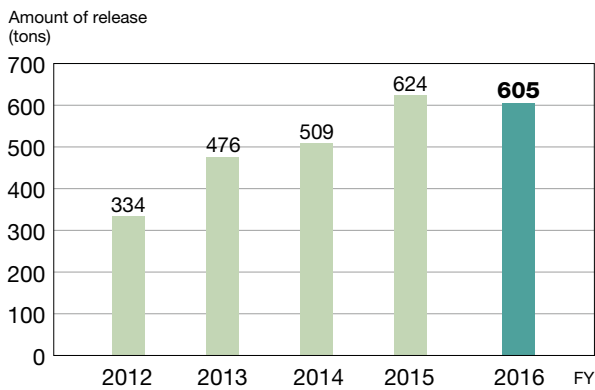
Air, Water, and Waste Materials

Initiatives to Prevent Air and Water Pollution

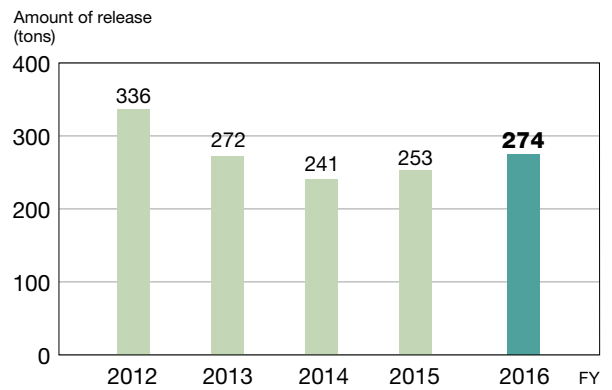
We are working to reduce emissions of air pollutants through the adoption of heavy oil with low sulfur (S) content and conversion to liquid natural gas (LNG).

The quality of our plant wastewater complies with the standards of the Water Pollution Prevention Act and agreements with local authorities (voluntary management standards).

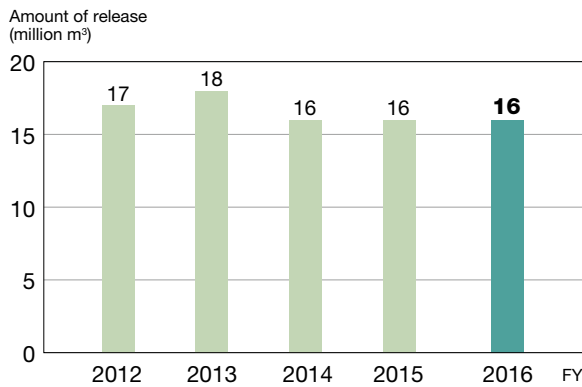
SOx Emissions



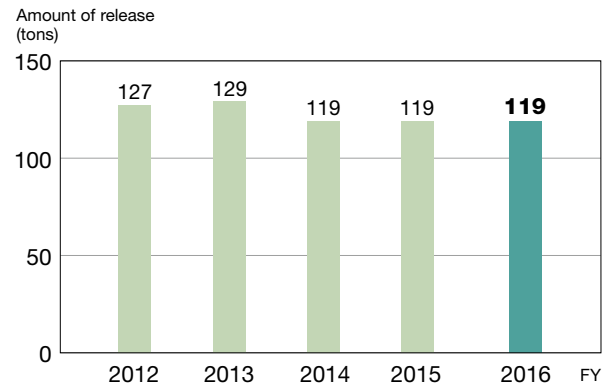
NOx Emissions



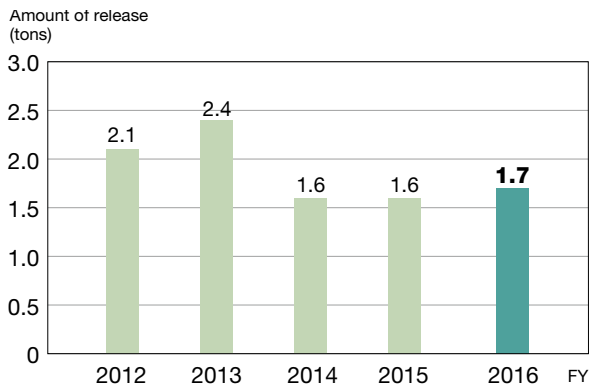
Total Wastewater Discharge



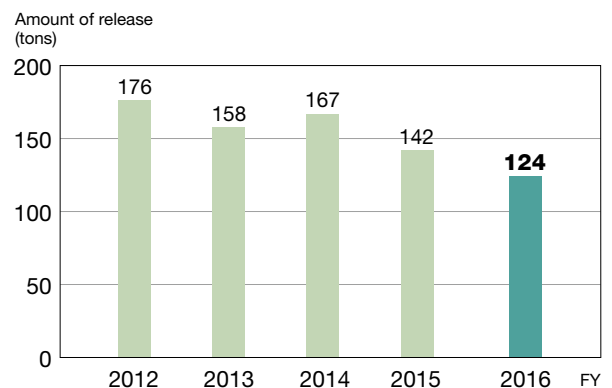
COD Discharge



Total Phosphorus Discharge



Total Nitrogen Discharge



Waste Reductions

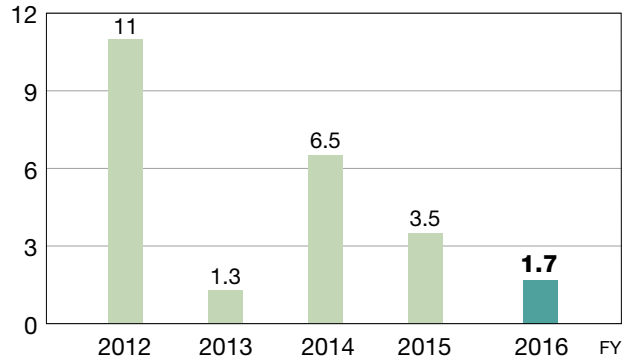
In terms of reducing the amount of industrial waste destined for final landfill disposal, Zeon Corporation worksites are maintaining a record of zero emissions (less than 0.1% of the industrial waste generated in FY 2007) since achieving this target in FY 2011.

Zeon Group companies had a final landfill volume of more than 600 tons in FY 2007, but since FY 2012 this has been reduced to around 10 tons, or roughly 0.4% of the industrial waste generated in FY 2007. This is considered zero emissions.

We aim to maintain a final landfill volume of 5 tons or less, the same as at Zeon Corporation worksites.

Final Industrial Waste Disposal at External Landfills

Landfill disposal volume (tons)



Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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Environmental Performance in Logistics

To more effectively use and recycle resources, we are promoting recovery and recycling of wood, resin, and metal pallets and containers used to transport various goods. We also use a large number of recycled resin transportation pallets.

In FY 2015, we reduced the weight of our metal box pallets by approximately 7% to more effectively use metal resources and reduce their environmental impact.

In FY 2016, we promoted collecting metal box pallets outside Japan and began collecting flexible bags to more effectively use resources and reduce their environmental impact.

Compliance with the revised Energy Conservation Act

As a specified consigner under the revised Energy Conservation Act, we are working to rationalize the use of energy together with partner companies involved in product and raw materials transportation. To date, we have studied and implemented improvements in loading efficiency, modal shift to rail and ship transportation, and truck and ship fuel efficiency.



Lightweight metal box pallet



Folded pallets after use

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Safety

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Safety and Accident Prevention	P 38
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Safety Training	P 40
Chemical Product Safety Information	P 42

Safety Philosophy

Responsible Care refers to a voluntary initiative by businesses that manufacture or handle chemical substances to achieve continuous improvement in health, safety, and environmental (HSE) performance across the entire life cycle of such substances—from development and manufacture, through distribution and use, and ending in final consumption or disposal—based on the principles of independent decision-making and personal responsibility. These businesses publicly commit to Responsible Care in their business policies, implement HSE-related actions, and strive to improve their HSE performance.

At Zeon, we have practiced the Responsible Care philosophy as a member of the Japan Responsible Care Council (now the Japan Chemical Industry Association Responsible Care Committee) since its inception in 1995. In 1998 we established our own Responsible Care Policy (→ P23) to define our conduct guidelines based on the Responsible Care philosophy.

Safety Philosophy

A consistently safe work environment is the foundation of all production activities. We established our Safety Philosophy in 1997 to guide our safety activities.

Safety Philosophy (Established March 1997)

1. Safety is the foundation of all business activities and the greatest priority
2. Our basic belief regarding safety is that we can prevent all accidents
3. Safety will be achieved by performing the 5Ss* and when everyone takes responsibility for their own actions

*5Ss
Seiri (sort), seiton (straighten), seisou (scrub), seiketsu (systematize), and shitsuke (sustain)

Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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Targets and Results

The targets and results of our safety initiatives as part of our Responsible Care activities are as follows.

Overview of Targets and Results

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
<p>Occupational health and safety</p> <ul style="list-style-type: none"> Have strengthened initiatives for workplace health and safety and employees' health management, fewer overtime hours, and significantly reduced number of employees with mental health issues Rate of abnormal results in routine physical exams is at or below standard 	<ul style="list-style-type: none"> △ Conduct health management initiatives to maintain and improve employees' mental and physical health, as stated in our top management policy ● Conduct mental health education and run a committee for determining returning to work ● Ensure labor hours management and prevent excessive work ● Encourage leaving work on time and taking of annual paid vacation ● Detect changes in health early through stress checks ● Provide guidance to improve employee lifestyle habits 	<ul style="list-style-type: none"> ● Promote the health and well-being of all Zeon employees, a source of our strength ● Enhance mental health education ● Implement company policies and create conditions for better health and well-being
<p>Occupational health and safety</p> <ul style="list-style-type: none"> Increased trust in Zeon to protect local communities' safety and security by conducting emergency drills and other initiatives such as concluding disaster cooperation agreements All worksites have earned public trust by maintaining a safety record of zero incidents and accidents 	<ul style="list-style-type: none"> △ Implement the Safety Management Improvement Master Plan △ Implement age-degradation countermeasures, fail-safe measures in all projects, and learn from accidents at other companies and plants ● Cross-develop lessons from cases of disaster △ Eliminate safety incidents*1: Regularly conduct plant safety evaluations and audits △ Eliminate occupational accidents △ Improve safety in logistics △ Conduct comprehensive emergency-response drills and monthly drills by our self-defense emergency response teams ■ Conclude cooperation agreements with local governments (Cooperative Agreement for Disaster Prevention in Industrial Complexes) △ Participate in community disaster readiness activities <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● Plant safety evaluations conducted 100% ● Implement RC audits*2 (once/year or more for all 4 plants) ● Eliminate safety incidents: 2 safety incidents ● Eliminate occupational accidents: 2 occupational accidents resulting in lost work time and 0 serious accidents without lost work time ● Improve safety in logistics: 0 accidents in logistics 	<ul style="list-style-type: none"> ● Develop 4 safety activities across Zeon Group (develop in the supply chain) ● Enhance dialogue with local communities on safety, the environment, and quality <p>Targets</p> <ul style="list-style-type: none"> ● Plant safety evaluations conducted 100% ● Implement RC audits (once/year or more for all 4 plants) ● Eliminate safety incidents: 0 safety incidents ● Eliminate occupational accidents: 0 occupational accidents resulting in lost work time and 0 serious accidents without lost work time ● Improve safety in logistics: 0 accidents in logistics ● Rate of implementing these indicators at Group companies
<p>HR development and training at workplaces</p> <ul style="list-style-type: none"> Have proactively enhanced awareness and made further improvements in the areas of health and safety through comprehensive education 	<ul style="list-style-type: none"> △ Provide training to enhance accident prevention awareness (4 plants, 1 Group company) (e.g., education using accident case studies, hands-on training) △ Promote the 5S's → 3S's 	<ul style="list-style-type: none"> ● Develop safety education across Zeon Group (develop in the supply chain) ● Develop the 3S's across Zeon Group (develop in the supply chain)

*1 Safety incidents

Defined in company regulations as the occurrence of a fire, explosion, leak, damage, failure, runaway reaction, or similar event.

Or, even without an actual occurrence, the possibility of such an event if actions had been delayed, and observation of signs before such an event.

*2 RC audits

Audits based on Zeon's Responsible Care Policy. RC audits use specialized indicators and are headed by the Environmental and Safety Affairs Department General Manager.

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Occupational Safety

Initiatives to Prevent Occupational Accidents and Protect the Safety and Health of All Plant Workers

We emphasize communication between worksite managers and workers to enhance worksite capabilities with the goal of creating safe and stable production systems.

We focus on 5S safety inspections*1, hazard detection*2 activities, and identifying near-miss incidents*3 as well as hands-on training.

*1 5S Safety Inspections

Inspections that evaluate operations where safety is an integral part of maintaining the 5 S's (sort, straighten, scrub, systematize, sustain) and that are designed to identify safety-related issues at worksites and address hazards.

*2 Hazard detection (Kiken Yochi (KY)) activities

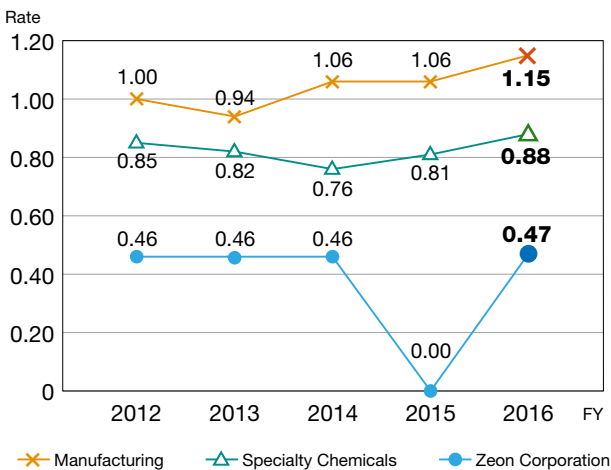
Actions taken by workers to analyze and understand unsafe conditions, and in turn recognize activities that would place them in danger.

*3 Near-miss incidents

Events or phenomena that have the potential to result in an accident, injury, or other loss.

Record of Occupational Accidents

Lost Work Time Accident Rate* (Zeon Corporation)



*Lost work time accident rate

A safety indicator of the frequency of occupational accidents, calculated using the following formula. Frequency of lost work time accidents = Number of workers who experienced a lost work time accident / Total working hours × 1,000,000 hours

5S Safety Inspections

5S safety inspections assess operations where safety is critical to maintaining the 5S's.

In FY 2016, we conducted 5S Safety Inspections two times. Environment and Safety managers from all plants participate in the inspections so that they can learn about 5S activities at other plants and develop them at their own plant.

The Environmental and Safety Affairs Department conducted Group company inspections at 11 worksites.

Hazard Detection (Kiken Yochi) Activities

4RKY (four-round kiken yochi) activities

4RKY is a hazard detection method where employees analyze and understand their work tasks before starting them to avoid placing themselves in danger. The process is carried out in four separate rounds.

KY trainers assigned to each worksite lead these activities.

Identifying Near-Miss Incidents

Near-miss incidents are events that have the potential to result in a major accident, injury, or other loss. The concept of near-miss incidents comes from Heinrich's Law: In a workplace, for every accident that causes a major injury, there are 29 accidents that cause minor injuries and 300 accidents that cause no injuries (near misses). Collecting and sharing data on near-miss incidents that occur in our operations can address the causes of serious accidents and in turn lead to accident prevention.

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Safety and Accident Prevention

Dialogue between Management and Plants

To monitor progress on priority issues, senior managers at Zeon visit plants on a regular basis to conduct inspections, hold informational meetings with workers, and brief workers on annual policies. They also visit plants on other occasions to communicate directly with plant workers. Senior managers visited plants over 54 days in FY 2016.

Safety Management Efforts Led by Top Management

Each year, top management develops the Safety Management Improvement Master Plan and leads initiatives to improve our Safety Management System based on the belief that safety is the highest priority.

We are carrying out the priority initiatives on an ongoing basis using the following simple guidelines.

1. Reliable operation of equipment and systems to prevent errors (“Never rely on ‘maybe’ or ‘should’”)
2. Plant degradation countermeasures and fail-safe measures* (“Good judgment saves money”)
3. Review of past accidents and recurrence prevention (“Never rely on ‘maybe’ or ‘should’”)
4. Review of standards (“Always follow the rules. Change rules that cannot be followed.”)

*Fail-safe measures
Modifications to equipment or processes and other measures to prevent accidents that would otherwise result from human error, such as mistakes made by new employees and others lacking in knowledge or experience, or careless mistakes made by experienced employees.

Safety Inspector Certification at All Sites

Certified Safety Inspector*1

Obtained by all plants (Takaoka, Kawasaki, Tokuyama, and Mizushima)

Certified Completion and Process Safety Inspector*2

Obtained by Kawasaki, Tokuyama, and Mizushima plants.

The certification renewal process includes reviews of safety inspection and completion inspection methods as well as inspection management, and verification that our Safety Management System meets the regulatory requirements defined in Japan’s High Pressure Gas Safety Act and that these systems are operating properly.

To more reliably ensure safety at all plants, we employ our Safety Management System and identify the sources of hazards and implement measures to mitigate risks at all of our plants.

*1 Certified Safety Inspector
Certification granted by Japan’s Minister of Economy, Trade and Industry based on the High Pressure Gas Safety Act to allow qualified individuals to perform safety inspections to determine whether specified facilities comply with technical standards, either while the equipment is running or while it is stopped.

*2 Certified Completion and Process Safety Inspector
Certification granted by Japan’s Minister of Economy, Trade and Industry based on the High Pressure Gas Safety Act to allow qualified individuals to perform completion inspections to determine whether manufacturing facilities or class 1 storage facilities that have undergone specified modifications comply with technical standards.

Certification Status

Plant	Obtained Certified Safety Inspector status	Obtained Certified Completion and Process Safety Inspector status
Takaoka Plant	2000 (renewed in 2015)	—
Kawasaki Plant	1998 (renewed in 2012)	2008 (renewed in 2012)
Tokuyama Plant	2007 (renewed in 2016)	2012 (renewed in 2016)
Mizushima Plant	2006 (renewed in 2016)	2006 (renewed in 2016)

Improving Plant Safety

We conduct Plant Safety Evaluations and Plant Safety Inspections to further raise the level of safety at plants and prevent serious accidents and disasters from occurring.

Plant Safety Evaluations

We verify plant safety at the design stage when commissioning a new plant or upgrading an existing one.

Plant Safety Inspections

For existing plants, while inspecting work areas, we ensure that all sources of danger have been identified and review past decisions regarding the need for safety measures.

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Occurrences of Accidents and Injuries

FY 2016: Safety incidents* 2 (High-pressure gas leaks 2)

Although these incidents did not result in human casualties, damage to equipment, or impacts on the environment, we set up an accident investigation board for each incident. The boards are investigating the direct and indirect causes of the incidents and developing countermeasures to prevent recurrences.

*Safety incidents
Defined in company regulations as the occurrence of a fire, explosion, leak, damage, failure, runaway reaction, or similar event. Or, even without an actual occurrence, the possibility of such an event if actions had been delayed, and observation of signs before such an event.

Disaster Preparedness Training

Worksites conduct disaster-response drills each year based on various hypothetical scenarios. The drills include contacting and reporting simulations, first-aid treatment, and rescue and firefighting activities. We conduct full-scale disaster-response drills jointly with local firefighting agencies when possible.

These drills allow us to verify that our standards are sufficient and the operability of emergency equipment (e.g., fire trucks, fire hydrants, broadcasting equipment). When we encounter problems, we take steps to quickly resolve them to maintain the highest level of disaster-response preparedness.

Safety in Logistics

Safety Initiatives in Logistics

At Zeon, we established Yellow Card* Management Rules for transporting hazardous products. These rules require drivers to carry a Yellow Card when transporting such products.

We also conduct reporting and communication training for drivers, and each plant offers training on product handling to prevent accidents in logistics.

*Yellow Card
Document describing response methods when an accident occurs during transportation, as established by the Logistics Safety Management Policy from the Japan Chemical Industry Association. The document is called a Yellow Card because it is printed on yellow paper.

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Safety Training

Systematic Safety Training

Safety training programs are implemented in accordance with the annual plan set by each worksite.

The corporate Environmental and Safety Affairs Department organizes companywide safety training programs, while each worksite provides training tailored to its own operations.

Training Organized by the Head Office

The corporate Environmental and Safety Affairs Department organizes educational programs conducted by the Head Office and carries out training activities at worksites. Through education and training, we strive to eliminate incidents and occupational accidents and minimize damage should an incident or accident occur. We want our worksites to be trusted by their communities.

Manager and Supervisor Trainings

New line manager training

Training for new Manufacturing Department managers, Equipment Control managers, and Environment and Safety managers are held every year.

The training covers safety activities based on Zeon's safety systems, safety-awareness understanding that safety managers need, environment and safety-related laws and relevant internal regulations, an overview of the "four laws of safety," and the Safety Management System.

In FY 2016, the training was held once for two new managers.

Safety Education by Former Plant Managers

Accident case study-based education program

Held since FY 2003, this education program aims to prevent the lessons of past accidents from fading from memory, to apply these lessons in work operations, to raise workers' awareness of safety, and to increase their sensitivity to potential risks.

Former plant managers give presentations for all plant employees. They cover specific examples of accidents at Zeon and other companies to communicate the grim consequences of such accidents, and provide instruction on how to analyze risk factors as well as countermeasures to prevent recurrences.

In FY 2016, former plant managers presented cases of explosion and fire, cases in processing fields based on their experience, and broader trends in safety management.



Accident case study-based education program (Mizushima Plant)



Accident case study-based education program (Tokuyama Plant)

Safety Training for New Employees

New employees hired by the Head Office

We present cases of worksite accidents during on-the-job plant training to emphasize the importance of following worksite rules.

New employees hired by plants

Education and training on safety basics.

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Environment and Safety Education and Training Organized by Worksites

Education on laws and regulations related to safety and the environment

Each plant conducts educational programs according to an annual plan.

Training activities

A range of training drills are conducted according to an annual plan. After the training drills, problems are identified to systematically make improvements and increase plants' emergency-response capacity.

- Comprehensive disaster-response drills: We hold disaster-response and evacuation drills once or twice a year to prepare for earthquakes and tsunamis.
- Individual drills: Disaster-response drills and reporting drills by emergency response teams of our self-defense emergency-response organization

Safety Workshops

The Safety Workshop held at Mizushima Plant gives participants practical experience in various safety rules. The Workshop tests participants on their understanding of plant safety rules defined in the Mizushima Plant Safety Workshop Operating Standards, and uses displays and activities to deepen plant employees' and partner companies' understanding of safety rules.



Display showing how to use scaffolding in the Safety Workshop

Hands-on Safety Education

In FY 2014, Kawasaki Plant began conducting a hands-on safety education program, which expanded to the Tokuyama, Mizushima, and Takaoka plants in FY 2015. The program is held for employees at research laboratories, resident partner companies, and nearby Zeon Group companies. In FY 2016, we conducted hands-on safety education for employees to experience the sensation of getting caught or trapped in equipment, electrostatic explosions and burns, shocks from residual pressure in couplers, falling objects, and loose and cut safety belts.

We will continue to systematically develop this program with repeated opportunities to experience it.



Getting caught in a roller during hands-on safety education

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Chemical Product Safety Information

We collect and provide safety information on our chemical products and conduct hazard assessments.

Information for the Proper Handling of Chemical Products

We produce Safety Data Sheets (SDS) for all Zeon products. SDS provide information including GHS*1 classification results, product hazards, and cautions for handling.

For a portion of our products, we disclose safety-related information in the form of safety abstracts, which are released on the GPS/JIPS*2 website (ICCA GPS Chemicals Portal Site).

*1 GHS

Globally Harmonized System of Classification and Labeling of Chemicals

*2 GPS/JIPS

Global Product Strategy/Japan Initiative of Product Stewardship

GPS is a new voluntary initiative related to the management of chemicals promoted by the International Council of Chemical Associations (ICCA). In Japan, the JICIA promotes GPS under the JIPS and encourages member companies to participate.

Participation in Voluntary Chemical Industry Initiatives

Zeon provides financial support for research activities by the LRI*3 involving chemical substance hazard reviews, safety evaluations, and environmental impact surveys. As a member of the Far East Section of the IISRP*4, Zeon also participates in investigations of environmental issues, reviews of countermeasures, and activities to implement them.

*3 LRI

Long-range Research Initiative: Activities to provide long-term support for research on the impact of chemical substances on health and the environment. A program under the auspices of the International Council of Chemical Associations (ICCA) that is carried out with funding from LRI member companies and in cooperation with the chemical industries of Japan, the United States, and Europe (specifically, the Japan Chemical Industry Association, American Chemistry Council, and European Chemical Industry Council).

*4 IISRP

International Institute of Synthetic Rubber Producers

Labor Practices

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Basic Approach and Initiatives

A Company of Which Each and Every One of Its Employees Can Be Proud

In our CSR Code of Conduct, we stipulate respect for human rights and prohibit discrimination. We strive to be a company that understands and accepts diverse values, and where no person is discriminated against based on gender, age, nationality, or other attribute.

Based on this policy, we aim to encourage employees to continually evolve by pursuing high goals based on independent thinking, by building a human resource system in which employees take on challenges without fear of failure and gain a sense of accomplishment, and by creating comfortable working environment that values dialogue.

*At Zeon, we use "employee" to describe all workers, including both permanent and part-time workers.



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Targets and Results

We have set Enterprise Blueprint for 2020 targets in each area of activity and are conducting initiatives needed to achieve our goals.

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Employment <ul style="list-style-type: none"> • Employment discrimination is eliminated, and equal employment opportunities are established (hiring) 	<ul style="list-style-type: none"> △ Hiring of non-Japanese employees (mid-career employees, exchange students) △ Expand the re-employment system for employees reaching the age of mandatory retirement <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● No. of employees rehired after mandatory retirement: 67 (82.7%) 	<ul style="list-style-type: none"> ● Expand hiring without regard for gender, nationality, race, age, disability, or other personal attribute ● Create the Supply Chain CSR Survey Database of labor practices at business partners
Labor conditions and social protections <ul style="list-style-type: none"> • Workplaces are re-energized by promoting diversity and the fair and equitable treatment of personnel (appointments) 	<ul style="list-style-type: none"> △ Appropriately implement HR systems (self-assessments, evaluation system, etc.) △ Support for employee skills and career development △ Appropriately implement regulations for harassment prevention △ MD Committee activities by women members (including dialogue between senior management and women employees) △ Promotion of employment for people with disabilities <p>FY 2016 Results</p> <ul style="list-style-type: none"> ● Percentage of employees with disabilities: 2.20% 	<ul style="list-style-type: none"> ● Advance diversity management ● Appoint more women employees to higher positions ● Appoint more employees who are non-Japanese nationals to higher positions ● Advance employment of older persons ● Create a systematic professional development system (including language education and overseas assignments)
Labor conditions and social protections <ul style="list-style-type: none"> • Promote work-life balance (harmony between work and life) to enable people to work while also caring for children and/or sick parents 	<ul style="list-style-type: none"> ■ Flex time system and discretionary labor system using the project-operations model ■ Draft the general employer's action plan under the Law for Measures to Support the Development of the Next Generation ■ Acquire the Kurumin mark in Japan △ Childcare support systems (shortened working hours, overtime restrictions and exemptions, sick care leave, breast feeding time, etc.) △ Return-to-work program for employees taking childcare and caregiving leave 	<ul style="list-style-type: none"> ● Pursue improved work and time off balance (promote taking of annual paid vacation) ● Promote taking of childcare leave ● Improve use of caregiving leave ● Study a telecommuting system

Targets and results for occupational safety are published in Safety. (→ P36)

Employment and Diversity

Zeon Group respects diversity and strives to be a company in which everyone in our diverse team of employees is able to fully demonstrate their capacities. Our employees today have a range of backgrounds and perform their duties regardless of gender, age, and nationality.

Basic Information

Basic Information on Zeon Corporation Employees

(non-consolidated; does not include non-permanent employees)

		Men	Women	Total
No. of employees		1,407	183	1,590
No. of new hires	New graduates *1	28	11	39
	Mid-year *2	2	3	5
Average years of employment		15.47	12.89	15.3

As of March 31, 2017 (excluding those who resigned as of the end of March)
Includes 12 non-Japanese employees (6 men and 6 women)
*1. Employees that joined that company in April 2017
*2. Employees that joined the company between April 2016 and March 2017

Hiring

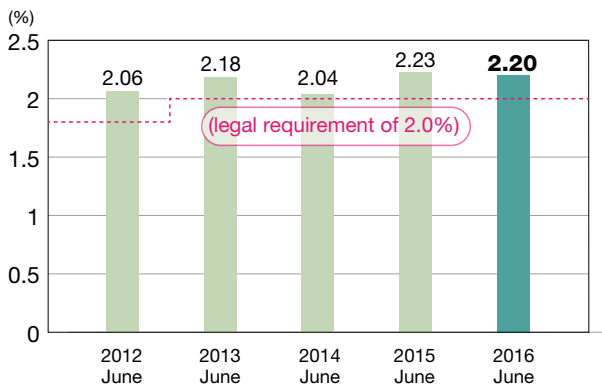
The Zeon Group hired 80 new graduates of high schools, technical colleges, and universities at the start of fiscal 2017.

Employment of People with Disabilities

In FY 2016, Zeon Corporation's employment ratio of employees with disabilities was 2.20%, above the statutory minimum of 2.0%.

We will continue to expand employment for people with disabilities while exercising the utmost care for safety, particularly at our laboratories and plants, which handle hazardous materials and use rotating and other industrial equipment to manufacture chemicals.

Percentage of Employees with Disabilities



Re-employment of Employees Reaching Mandatory Retirement

We have adopted a re-employment system that allows motivated and skilled employees who have reached mandatory retirement age to continue working. In FY 2016, 67 out of 81 employees (82.7%) who reached the age of mandatory retirement continued to work for Zeon Group.

Women's Advancement in the Workplace

Established in January 2009, the MD Committee has operated for eight years. In FY 2017, the committee, consisting of 58 women from across the company, promoted MD activities based on two "C's" (CSR and cost reductions) and two "MD's" ("muda-dori" and "mudo-dukuri," or waste-cutting and atmosphere creation in English). In addition to waste-cutting proposals that can be directly measured in monetary terms, the committee is also conducting initiatives to improve the work environment and facilitate communication, and steadily promoting innovative activities in plants and other workplaces.

We have established targets to increase the number of women employees as part of our Action Plan for General Employers based on the Act to Advance Women's Success in their Working Life.

We position the advancement of women in the workplace as the first step in promoting diversity at Zeon. As such, we are developing a range of measures to enable women to continue working and advance their careers, including holding workshops and improving systems that offer flexible work styles.

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Action Plan for Employers in General based on the Japanese Act to Advance Women's Success in their Working Life

We have established the following action plan to create employment conditions that allow women to continue working and be promoted to managerial positions.

1. Plan period April 1, 2016 to March 31, 2018
2. Zeon Corporation issue Want to increase the number of women employees.
3. Goals and initiatives, implementation timeframe
 - Goal 1 30% of new graduate hires are women.**
Starting in FY 2016, hold hiring seminars on the topic of women's work styles at Zeon
 - Goal 2 Strengthen network of women employees**
Starting in FY 2016, organize working group meetings
 - Goal 3 Increase understanding for women's advancement in the workplace**
Starting in FY 2016, conduct an educational program for managerial level employees to promote understanding of diversity

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Human Resource Development

Encourage Employees to Continually Evolve by Pursuing High Goals Based on Independent Thinking

Basic Philosophy on Human Resource

Tap into, develop, and fully use the competencies of each employee.

Zeon's concept of "being the worker I want to be" embodies "persons to continually evolve by pursuing high goals based on independent thinking." Personnels are encouraged to set goals to become the worker they want to be, and we are modifying our education and training systems to allow them to bridge the gap between the current reality and their goals and facilitate goal-driven actions on a daily basis. By fairly evaluating what employees have accomplished and rewarding them accordingly, we aim for them to set even higher goals. With every personnel continuing to improve and demonstrating this in actions, we can create an even more capable workforce across Zeon.

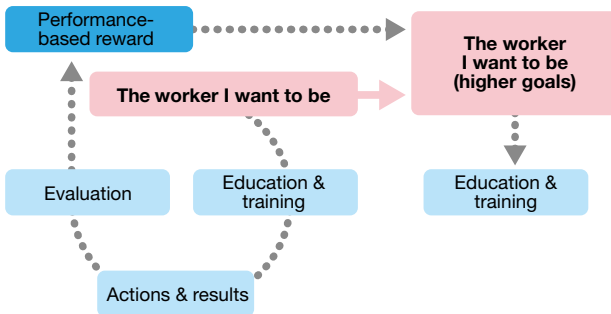
Education and Training Framework

Education and training at Zeon is broadly divided into core and specialized programs. The core program is for all employees and focuses primarily on developing awareness for Zeon's management philosophy, building a cooperative spirit, and acquiring shared knowledge. We also provide specialized education to develop the work competencies needed in specific occupations and company ranks as well as on-the-job training conducted at worksites.



Line manager training

HR Development at Zeon



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Education & Training Scheme

Company rank	Leadership development and education	Rank-based education	All levels professional skills	Self-improvement	Global education	Occupation-based specialized education	On-the-job training
Line managers	Business leadership education	Line managers	Information systems, accounting, CSR, compliance, environmental safety, quality assurance, production	Support for online educational courses, obtaining qualifications	Training staff for work abroad, TOEIC, MOT, MBA	Research, technology, clerical work, sales, planning and control, manufacturing, engineering	Transferring technical knowledge, partnering with off-site educational programs
		New line managers					
Deputy line managers		Deputy line managers					
Mid-career staff		Mid-career staff					
New employees		New employees					

Zeon's Ippeki Training Facility

We opened the Ippeki training facility in 1981 to create a venue that allows employees to concentrate on their education and training to improve their qualifications and skills. Employees come to the training site from our worksites throughout Japan for intensive education and training, and also form personal relationships over the course of staying at the site together with instructors and other participants.

Occupation-based Specialized Education – Manufacturing Duties (Production Operators)

We established the Monozukuri (Product Manufacturing) Training Center in 2009 as an educational facility for all manufacturing operators. Its goal is to develop human resources to support production innovations in pursuit of ensuring safe and reliable production activities. To cultivate operators who understand and follow the rules and make improvements on their own, the center has a simulated plant where trainees practice basic operations and basic processes in addition to acquiring foundational knowledge.

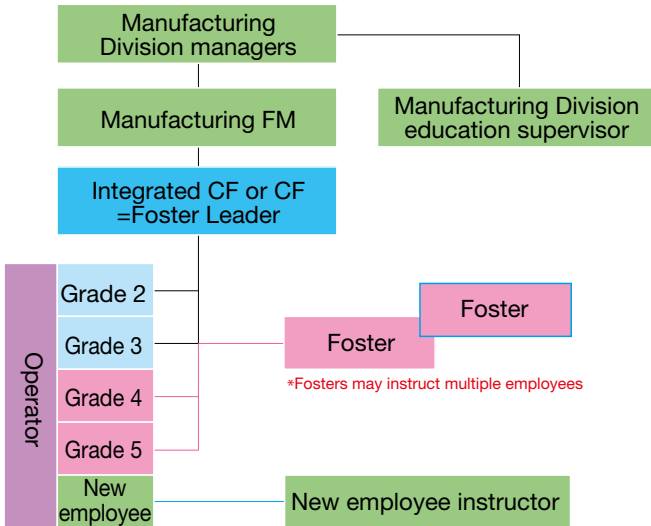
New employees take the beginner-level training program during their first to third years of employment. During the

program, they live in the company dormitory to foster friendships and build solidarity with their coworkers while keeping a regular schedule. The curriculum at the Monozukuri Training Center includes both a basic program, consisting of classroom lectures and tests, and a training program at our training plant. The training at the simulated plant teaches trainees how to operate, monitor, and stop machinery. The training sessions are repeated until trainees become well acquainted with basic operations (identifying and pointing out items to be checked, reporting, maintaining open communication, consulting supervisors, and detecting hazards) and basic processes (such as work safety procedures common to all worksites). Trainees also have opportunities to learn the reasons why operations are done the way they are. Tests are given the day after classroom lectures so that trainees can review what they learned the previous day. One trainee is selected to help administer the curriculum in a leadership position. This training system aims to accomplish several objectives at the same time, namely skills acquisition, developing independent thinking, and building leadership skills and a spirit of cooperation. Various means are employed to ensure that trainees take the training program seriously, such as issuing yellow cards to trainees who do not follow company rules.

We have introduced the Foster system, in which trainers (Fosters) separate from the new employee instructors engage in training individual new employees for the purpose of making product manufacturing training a routine aspect of worksites. While we expect manufacturing operators to work in their own personal development, we have introduced the Foster system

to create an HR development framework in which all worksite employees including senior staff and supervisors participate in HR development. Another purpose of the program is for Fosters to achieve professional growth through instructing junior employees.

Manufacturing Foster System Scheme and Definitions of Roles



What is a Foster?

We foster talent that can do work.

- ➔ Perform the role of training group members.

Foster leader (Integrated CF or CF)

Person responsible for integrated management of developing the proficiency of group members

Foster

Person providing and tailoring on- and off-the-job instruction according to the proficiency level management documentation

New employee instructor

Person responsible for developing and instructing new employees in their first year of employment until they can perform their duties independently

Human Resource System

Human Resource System That Gives Employees a Sense of Challenge and Accomplishment

At Zeon Corporation, we believe that employees are a source of our competitiveness. We strive to create a human resource system that provides employees with a sense of accomplishment by giving them opportunities to challenge themselves to achieve ambitious goals within the shared goals of the organization and to have their performance reflected fairly in their pay and employment conditions.



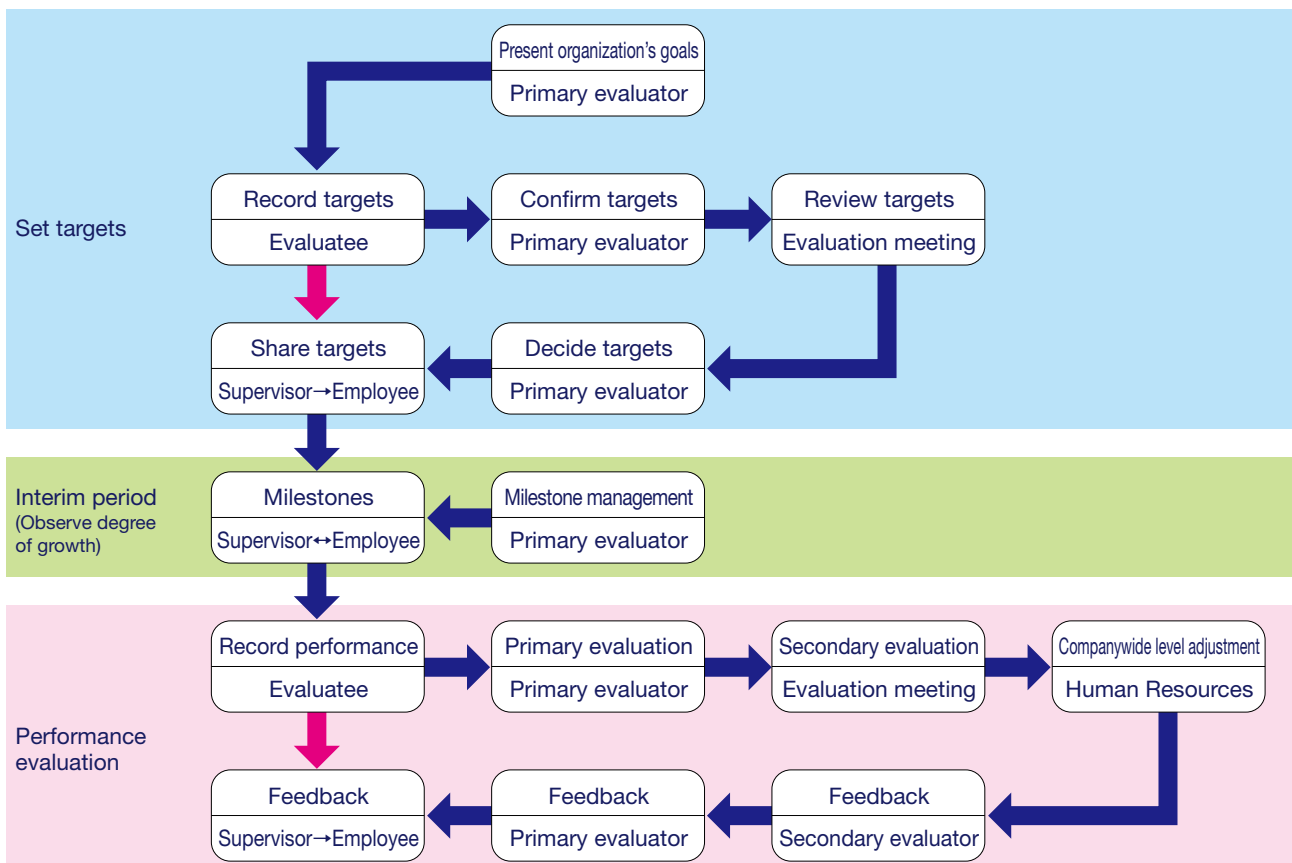
Performance Evaluation System

With the understanding that a perfect score is impossible in a personal performance evaluation system where people rate each other, we are providing training to all evaluators and evaluated persons to maintain and improve their evaluation competency.

At Zeon Corporation, we have placed priority on gaining understanding and acceptance for evaluation results. Expectations, required work, and performance targets are made clear to all employees at the beginning of the evaluation term, and are shared among superiors and subordinates. At the end of the evaluation term, we perform fair evaluations of work and performance (i.e., contribution to the organization) with the aim of shaping a corporate culture filled with a sense of accomplishment and aspiration (i.e., spirit of challenge and creative motivation).

We will continue our efforts to create an open and fair performance evaluation system that encourages the creation of added value as well as creative work, and that distributes opportunities and rewards in a fair manner.

Performance Evaluation Flowchart



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Performance-Linked Bonus System

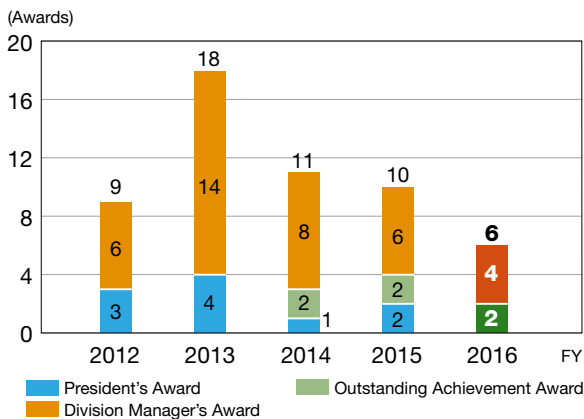
Since 2000, Zeon Corporation has adopted a bonus system that is linked to performance. The bonus is determined based on three types of performance, namely companywide, division, and individual performance. As with the performance evaluation system, we view bonuses as a means of giving employees a sense of accomplishment by reflecting their performance in their compensation when they challenge themselves to achieve ambitious goals individually, as a team, and as an organization.

In FY 2016, we decided company performance bonus indicators and target figures following discussions between labor and management.

Award System (Zeon Challenge Award)

Our awards programs include the Employee of the Month award selected by division managers each month and the annual Zeon Challenge Award (President's Award), for which individual employees and divisions define a specific challenge at the start of the year and are judged on their progress toward meeting that challenge. The Zeon Challenge Award presentation ceremony is broadcast to all sites via videoconferencing to allow as many people as possible to participate each year. High-performing departments and individuals who narrowly miss receiving the Zeon Challenge Award are eligible, based on their accomplishments, for the Outstanding Achievement Award from the President and the Division Manager's Award from the division manager.

Number of Annual Awards



Zeon Master System (Re-employment System)

Zeon Group has adopted a re-employment system that allows skilled and motivated employees who have reached the age of mandatory retirement to continue working. As a term of respect, we refer to these re-employed employees as "(Zeon) master employees." Master employees are given the opportunity to continue working in order to pass on their skills and train successors.

Retirement Package System

Zeon Corporation provides retirement packages and defined-contribution (DC) pensions. The retirement package takes into account the last 10 years of performance evaluations before mandatory retirement and reflects the results in a lump-sum payment upon retirement, with the expectation that employees will remain motivated and feel a sense of accomplishment up until mandatory retirement. The defined-contribution (DC) pension system includes contributions from the company that can be matched by employee contributions, and is one means of accumulating assets for after retirement.

Compensation System for Invention Patents

We are continuously working to create new technologies based on our Basic R&D Philosophy: Contribute to society by creating world-leading businesses through developing unique technologies in the specific fields in which Zeon excels.

We strive to expand our intellectual property rights using the patent first* principle, not only to protect, based on full respect for others' rights, the technologies we have created ourselves but also to contribute to industry growth.

In addition to incentives awarded to the inventor of an invention made in the course of work when the patent application is filed and when the patent is registered, we have also adopted a system to award outstanding invention incentives and performance incentives.

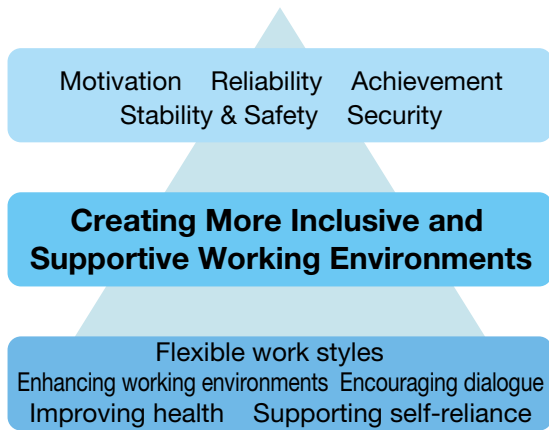
*Patent first
At Zeon Corporation, this is defined this as filing patent applications before developing or announcing products or providing samples. This means that we develop products after first thinking about how to file the patent application.

Creating Working Environments That Protect Health

Creating Comfortable Working Environment That Values Dialogue

Approach to Building Working Environments

Guided by the principles of motivation, reliability, achievement, stability, safety, and security, we are pursuing flexible work options premised on regulatory compliance and special importance given to CSR. We continue to work to build more inclusive and supportive working environments from five perspectives: supporting flexible work styles for work-life balance, enhancing working environments, encouraging dialogue, improving health, and supporting self-reliance.



Systems and Initiatives to Realize More Inclusive and Supportive Working Environments

We are implementing ongoing initiatives to build more inclusive and supportive working environments. These include reducing overtime work and developing systems for flexible work options and to support childbirth, childcare, and family care needs.

Systems and Initiatives

Flexible work styles		Flex-time system, a discretionary work hours scheme for specialist and project-based work, encouraging taking of special leave, half-day holidays, instituted days with no overtime, self-improvement activities, trainings for managerial and supervisory staff, surveys of actual conditions, instruction form for overtime work, a labor-management committee, labor-management patrols
Support for combining work and childcare		Maternity leave before and after birth, childcare/caregiver leave system, leave to attend delivery (for expecting fathers), leave to care for a sick child, half-day leave (applicable to childcare and caregiving), shortened hours work system, limits on overtime work and exemption from late-night work, breastfeeding time, childcare/caregiver leave financial support system, childbirth cash payments
Health and welfare	Asset accumulation	Employee savings scheme (incentives for retirement savings), employee stock ownership scheme (with financial incentives), defined-contribution (DC) pensions, matching contributions system
	Housing assistance	Housing assistance system (dormitory and company housing, rent subsidy system, home ownership allowance, home rental for transferred employees)
	Marriage	Marriage cash payments, honeymoon leave, spousal allowance
	Childbirth	Childbirth cash payments, maternity leave, dependents and tuition allowances
	Holidays and business shutdowns	Carryover of accrued vacation, "my life" holidays (upon reaching age 50), "refresh" holidays (Master employees), public-service leave (for jury duty)
	Recreation and training facilities	Hakone Gora Facility, Izu Ippeki Training Facility
	Loans and self-help	Bereavement condolence payments, bereavement leave, study loans, disaster assistance, group medical insurance, compensation for absences from work (Zeon health insurance cooperative association), optional group insurance, group life insurance, etc.

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Support for Combining Work and Childcare

At present, 100% of women employees who give birth take childcare leave. Among men employees, one to two employees have taken childcare leave each year since FY 2014. Many employees have also used our system of working shortened hours to allow them to both work and raise children.

Action Plan for General Employers under Japan's Law for Measures to Support the Development of the Next Generation

Based on Japan's Law for Measures to Support the Development of the Next Generation, we have drawn up an action plan for general employers and report our activities to the relevant authorities.

In FY 2014, we achieved our targets within the plan period and received the Kurumin Mark from the Minister of Health, Labour and Welfare, which is awarded to companies that support child-rearing.

The current action plan is as follows.

Zeon Corporation's Action Plan for General Employers

In order to more fully promote the establishment of an environment where each and every employee can display their abilities to the fullest, we have formulated the following action plan, as we believe that it is important to create an atmosphere and a workplace environment that combines work and childcare.

1. Plan period:
The four-year period from April 1, 2014 to March 31, 2018

2: Details

Objective 1: We will promote the creation of an environment that facilitates the use of compatibility support.

Action: The support system guidebook will reflect details of revisions to the system as necessary. We will provide support by for example, promoting support plans to managers and by offering consultations.

Objective 2: Initiatives to develop an environment of compatibility support.

Action: We will work to provide information and develop a consultation system in order to ensure the health of female employees during pregnancy and after childbirth (after a period of absence).

Objective 3: At least one male employee will take childcare leave during the target period of this plan.

Action: We will create a comfortable work environment and streamline the system to make it easier for male employees to take childcare leave.

End

Support for Combining Work and Family Care

Labor and management at Zeon work together to achieve a balance between work and family for employees with family members requiring in-home care. We have set up a consultation desk to support such employees.

Improving working Environments, Encouraging Dialogue, and Supporting Self-Reliance

Zeon Corporation values mutual trust between co-workers. Our focus is on encouraging dialogue (communication) to create an atmosphere in which all employees display sensitivity to each other based on shared awareness, and in so doing enhance our worksite capabilities.

We consider communication between not only managers and employees but also within the workplace and between workplaces to be the foundation of all corporate activity. Through communication, we aim to remove barriers between organizations, unify our direction, and help employees feel satisfaction and pride in their work.

Labor Agreements and Communication between Labor and Management

Joint Declaration by Labor and Management Aimed at the Growth of the Company

1. We will make mutual understanding and trust the cornerstone of all management-labor relations
2. We will perform our respective roles to strengthen company infrastructure and build a company of which we can be proud
3. We will mutually strive to improve and promote our corporate culture as beneficial partners

Zeon Corporation and its labor union have concluded a labor agreement for the purposes of maintaining peaceful relations between the two parties and cooperating for the healthy growth of the company and to maintain and improve working conditions for union members. This agreement stipulates rules for union activities, labor-management negotiations, and complaint processing, and working conditions such as wages and work hours.

We have also issued the Joint Declaration by Labor and Management Aimed at the Growth of the Company based on the common understanding that both the company and the labor union must cooperate and actively strive to mobilize the abilities of everyone in Zeon Group to achieve initiatives for company growth.

Numerous opportunities for exchanging opinions have been set up, including consultations between labor and management, RC dialogue, and joint labor-management patrols as well as roundtable meetings, which are now a permanent part of the labor-management dialogue. Consultations between labor and management provide ample opportunity for forthright discussion. Both sides participate with a forward-looking attitude and spirit of friendly rivalry based on mutual trust.

We intend to proactively provide opportunities for dialogue with the labor union and to implement various policies to make Zeon a "company of which each of its employees can be proud" through a beneficial partnership between labor and management based on mutual respect for each other's positions.

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Dialogue with Management

Opportunities for actively engagement with management are available in policy briefings and other venues in which management members up to the President visit worksites to provide explanations and talk with employees.

Submitting complaints

Zeon's labor agreement includes rules for making official complaints.

We have established rules for preventing sexual harassment, which is conduct subject to disciplinary action in our employment regulations, and have set up a consultation desk specifically for resolving sexual harassment-related complaints.

We also conduct an educational program on prevention of harassment for all staff as part of our diversity training.

Health Management Initiatives

As stated in our top management policy, we strive to maintain and improve the mental and physical health of our employees.

In addition to healthcare guidance provided by nurses, we provide statutory medical examinations as well as detailed medical examinations by industrial physicians. We are also working in collaboration with a health insurance cooperative association to prevent employee conditions from becoming serious illnesses.

In addition to providing mental health education, several worksites have implemented stress checks since FY 2016 to assist employees in better understanding the physical and mental effects of stress. We have also set up an educational system using self-care and e-learning courses to encourage employees to check their stress levels at any time, not just at the time company stress checks are conducted. In addition, we have assigned psychiatrists and psychotherapists to support our industrial physicians.

Performing environmental measurements on chemical concentrations, dust concentrations, noise levels, and other conditions in work areas at our plants also helps us make improvements to workplace environments.

Starting in FY 2016, we are making available an ICT-based health and prevention information service. The service allows employees to check their medical data from a computer or smartphone at any time. The service also provides health information tailored to the person's health data. We are also participating in health-promotion events to encourage employees to take an active interest in their health through the ICT-based health and prevention information service.

Fair Operating Practices

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Targets and Results

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Fair competition <ul style="list-style-type: none"> Are complying with all laws and regulations, ordinances, agreements, and internal regulations, and acting with high ethical standards based on being a model for society 	<ul style="list-style-type: none"> ■ Enact and implement management regulations including those on insider trading and appropriate disclosure △ Comply with internal regulations including the Export Security Control Regulations △ Appropriately implement regulations to comply with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (Antimonopoly Act) △ Compliance with the Subcontract Act and the Act for Securing the Proper Operation of Worker Dispatching Undertakings (prevention of falsified contracts) 	<ul style="list-style-type: none"> ● Compliance with internal regulations ● Ongoing legal training and information sharing using the Compliance Textbook and other materials ● Education on the CSR Code of Conduct
Fair competition <ul style="list-style-type: none"> Management policies are broadly understood and compliance awareness is widespread. As a result, by proactively conducting CSR activities and adapting to environmental changes, business continuity as well as sustainable development are achieved 	<ul style="list-style-type: none"> ■ Regulations in the CSR Code of Conduct and the CSR Procurement Guidelines △ Employees read the CSR Textbook and Compliance Textbook and take e-learning courses △ Conduct CSR education including holding CSR informational sessions △ Hold workshops on legal and regulatory compliance △ Legal compliance inspections △ Regularly revise internal regulations (to satisfy legal amendments) 	<ul style="list-style-type: none"> ● Ongoing compliance education ● Revise the Compliance Textbook and the CSR Textbook and hold related informational meetings ● Ongoing CSR briefings by the head of the CSR division ● Support the establishment of compliance systems at Zeon Group companies outside Japan (develop in the supply chain) ● Shift from compliance to sustainability (promote understanding among management and establish among employees) ● Become a signatory to the United Nations Global Compact
Fair competition <ul style="list-style-type: none"> Information is disclosed quickly and appropriately, and market value has increased (including negative information regarding business conditions, CSR, risks, etc.) 	<ul style="list-style-type: none"> △ Hold financial results briefings △ Publish various reports △ Release information via the corporate website △ Hold briefings for individual investors and analysts and respond to media inquiries △ Hold press conferences for mass media outlets and others 	<ul style="list-style-type: none"> ● Enhance the corporate website (IR, CSR information) ● Strengthen the communication system (PR) ● Release information for ESG investors
Social responsibility in the value chain <ul style="list-style-type: none"> Select business partners based on the CSR Procurement Guidelines and periodically confirm the Guidelines' status of implementation 	<ul style="list-style-type: none"> △ Comply with laws and regulations on competition including the Antimonopoly Act △ Satisfy the RoHS Directive, bans on substances, etc. △ Purchasing following the CSR Procurement Guidelines 	<ul style="list-style-type: none"> ● Develop and establish the CSR Code of Conduct and CSR Procurement Guidelines in the supply chain ● Build the Supply Chain CSR Survey Database

Compliance

Compliance System

The Compliance Committee advances Zeon's compliance efforts. The Compliance Committee has four subcommittees, namely the Antitrust Law Regulatory Subcommittee, the Export Security Control Subcommittee, the Corporate Governance Subcommittee, and the Information Security Subcommittee.

Zeon's Risk Management and Compliance System



Compliance Committee

FY 2016 Results

- Educated staff on global assignments on compliance with antitrust regulations and preventing bribery
- Conducted workshops on legal compliance at plants and subsidiaries (in and outside of Japan)
- Checked the level of compliance understanding through e-learning

Antitrust Law Regulatory Subcommittee

- Conducted reviews prior to revising product prices in business divisions, carried out preliminary screenings when meeting with executives of competitors, and reviewed the status of participation in industry bodies

Export Security Control Subcommittee

- Conducted seminars for employees and department representatives
- Implemented numerous final assessments of control list applicability and trade investigations

Corporate Governance Subcommittee

- Established controls for identifying the risk of and preventing errors in consolidated financial statements. Evaluated whether the controls were functioning correctly
- Convened five times during FY 2016 and rectified three ineffective controls

Information Security Subcommittee

- Promoted understanding of information security rules
- Conducted training to raise awareness for security through e-learning
Participation rate: More than 99%

Internal Reporting System

We established the Internal Reporting System to rapidly collect information on potential risks and facilitate their resolution.

(For more information about the Internal Reporting System, see Risk Management. → P21)

Internal Audits

Internal audits are performed for the purpose of preventing improprieties and errors in business operations.

The Department of Internal Auditing inspects and assesses whether business operations in all departments are being carried out appropriately and effectively in accordance with laws and internal regulations, and orders improvements when there are incidents of violations or non-compliance. In addition, the Department of Internal Auditing carries out periodic follow-up audits on the progress of measures taken by departments.

FY 2016 results: 34 departments (15 departments at Zeon Corporation, 10 Zeon Group companies in Japan, 9 Zeon Group companies outside Japan)

FY 2017 plan: 36 departments (12 departments at Zeon Corporation, 13 Zeon Group companies in Japan, 11 Zeon Group companies outside Japan)

Information Security Audits

Information security audits are internal audits on the handling of information assets. They are conducted for all divisions and departments at Zeon using a self-inspection format.

Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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CSR Procurement

In order to provide safe and reliable products, we procure raw materials based on the Zeon CSR Policy and the CSR Code of Conduct.

Procurement Policies

Policies related to procurement are as follows.

We have been developing initiatives for CSR-based procurement since FY 2012. We have established the CSR Procurement Guidelines and Requests to Suppliers, which integrate CSR perspectives into our existing QCD*.

*QCD
System of production management that controls and improves quality, cost, and delivery.

Procurement Initiatives

We forbid substances whose handling is prohibited and monitor for the presence of substances governed by laws and the RoHS Directive. We also proactively disclose information on the substances contained in our products.

We conducted a customer questionnaire in FY 2013. Looking ahead, we will consolidate our approach to supply chain management and build a system for sharing our CSR policies in order to embed CSR procurement throughout the supply chain.

CSR Procurement Guidelines

1. CSR procurement

We will promote procurement activities that are based on our CSR Policy.

2. Procurement of optimal raw materials, products, and services

We will work to procure optimal raw materials, products, and services that meet our standards for quality, cost, delivery time, supply stability, and technological development capabilities in order to provide better products.

3. Consideration of the global environment

We will work to procure raw materials and products that have less impact on the global environment.

4. Open approach to purchasing and partnerships

We will use a global perspective to search for suppliers from across the world, build partnerships through dialogue, and work to create fair and equitable business opportunities.

Requests to Suppliers

We kindly ask that our suppliers:

1. Follow corporate ethics and thoroughly implement compliance.
2. Respect human rights and give consideration to workplace environments.
3. Give consideration to the environment, and provide safe raw materials, products, and services.
4. Provide raw materials, products, and services with competitive quality and pricing, and abide by agreed delivery dates.
5. Actively provide information during the creation of partnerships. Also, implement strict management of information disclosed by Zeon during our transactions. We will implement the same strict management.

Fair and Appropriate Information Disclosure

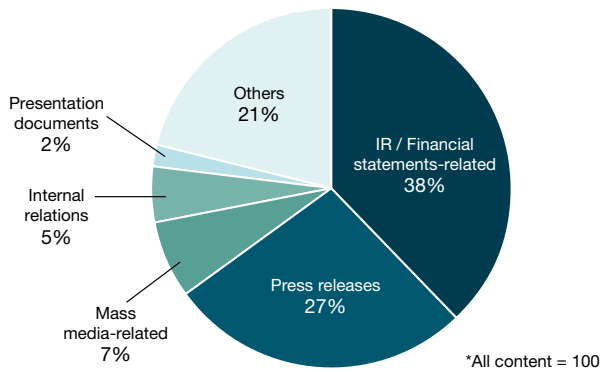
Communications Approach and Framework

We conduct public relations activities to promote accurate understanding of our philosophies, approaches, and various undertakings by stakeholders and the public, and thereby increase our name recognition and become more known and trusted in the world.

Public Relations Committee

The Public Relations Committee discusses and sets policy related to internal and external information disclosure based on CSR management. In FY 2016, the committee made 60 policy decisions.

Policy Decisions and Reports Made by the Public Relations Committee



Advertising

We conduct locally based advertising and PR activities with the aim of enhancing the Zeon brand.

TV commercials

- TV Commercials in Japan are broadcast in the Kanto region and Toyama, Okayama, Yamaguchi, and Kagawa prefectures (update content after April 2017)
- TV commercials for Asia are broadcast throughout Southeast Asia via satellite TV programs



New TV commercials

New advertisements

We will continue to run ads in the series “The Future, Zeon,” “That Aroma, Zeon,” and “That Driving, Zeon,” which began in 2016.

Information Disclosure

Website

- Communicate information including on the company, IR, products, and employment.

Press Conferences

We held three press conferences in FY 2016.

- July 2016: Press conference to announce the completion of construction to increase the production capacity of thermoplastic elastomers and cyclo-olefin polymers (thermoplastic transparent plastic) at Mizushima Plant
- November 2016: Press conference to announce the launch of mass-production of high-performance pad-type thermal interface material (TIM) synthesizing single-walled carbon nanotube and rubber (joint press conference with New Energy and Industrial Technology Development Organization (NEDO))
- February 2017: Press conference to announce the establishment of the Zeon Sunarrow AIST CNT Composite Material Research Center (joint press conference with the National Institute of Advanced Industrial Science and Technology (AIST) and Sunarrow Limited)

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Communication with Shareholders

Policies related to constructive dialogue with shareholders

Dialogue with shareholders is led by the Department of Corporate Communications and overseen by the director in charge of CSR. The Department of Corporate Communications, the Corporate Planning Department, the Accounting and Finance Department, the General Affairs Department, the Legal Affairs Department, and other departments exchange information as appropriate to provide accurate and unbiased information to shareholders.

We will continue to expand the avenues of dialogue apart from individual meetings. These include holding quarterly briefings for investors, making financial statements available on the Zeon Corporation website, and participating in company seminars for individual investors. The Department of Corporate Communications collects and analyzes feedback received in dialogue with shareholders and makes reports to the President as appropriate. Based on management regulations including those on insider trading and appropriate information disclosure, we strictly control unreleased important information while engaging in dialogue with shareholders to prevent information leaks.

General Meeting of Shareholders

On June 29, 2016 (Wednesday), we held our 91st Annual General Meeting of Shareholders in a conference room at the Head Office. To help investors have a clearer understanding of our business, on the day of the meeting we also set up a booth to introduce clients' commercial products that contain our products. We mail out notices approximately three weeks prior to the meeting to allow investors who cannot attend the meeting to exercise their voting rights based on a full review of the proposals. We also publish the details of resolutions from the General Meeting of Shareholders on our corporate website. In addition, audio files of quarterly financial results briefings and videos of presentations given twice a year by top management on the current status of management at Zeon are available on our corporate website.



Video of a presentation by President Tanaka

For more information about the General Meeting of Shareholders, see

http://www.zeon.co.jp/ir_e/stock/meeting.html

For more information about financial results briefings, see

http://www.zeon.co.jp/ir_e/library/presentationmeeting.html

Communicating Information to Shareholders

Twice a year, we send a booklet to our shareholders featuring updated business information and recent topics of

interest. The 92nd Midyear Report issued in December 2016 included specific examples of business performance, such as a feature on synthetic latex for gloves and diversifying glove applications based on factors such as higher awareness of hygiene practices.

We will continue to improve the Midyear Report to make it more accessible and better meet shareholders' needs.



92nd Midyear Report

Annual Report and other Midyear Reports, see http://www.zeon.co.jp/ir_e/library/businessreport.html

Distributions

Our basic policy is to pay out steady dividends of excess earnings to shareholders.

In principle, Zeon Corporation distributes excess earnings twice annually, through interim and year-end dividends. The General Meeting of Shareholders decides the year-end dividend amount, and the Board of Directors decides the interim dividend amount. Retained earnings are leveraged for proactive capital investments, development of innovative technologies, and production innovations.

For more information about Zeon's share price and dividends, see <http://www.zeon.co.jp/ir/stock/dividend.html> (Japanese only)

Communication with Investors

We actively engage in communication with institutional investors and analysts both inside and outside Japan.

We held analyst briefing sessions to announce our FY 2016 quarterly results in July and October 2016 and in January and April 2017. In addition to briefings on our current management situation by the President, we also reviewed the initiatives of our mid-term management plan SZ-20 Phase II in our second quarter financial report, and provided an overview of our new mid-term management plan SZ-20 Phase III, which began in FY 2017, at the annual financial results briefing session. We have also deepened understanding of our company through technical seminars and giving plant tours.

To individual investors, we strive to provide up-to-date information on our business. For example, we publish online content for individual investors on our corporate website, and participated in a briefing session held for individual investors in February.

Furthermore, we are working to distribute information for investors through various opportunities such as releasing a video introducing Zeon on the TSE (Tokyo Stock Exchange) IR Movie Square.

Consumer Issues

Targets and Results P 60
Quality Assurance P 60

*For chemical product safety, see Safety. (→ P42)

Targets and Results

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Protecting consumers' health and safety <ul style="list-style-type: none"> Both quality and cost are globally first rate 	<ul style="list-style-type: none"> △ Have a quality management system based on ISO 9001 △ Manage quality assurance risks (product liability lawsuits, supply obligations, product recalls, and credibility loss due to rumors) △ Improve processes (reduce losses, improve consistency) △ Develop activities for production innovations 	<ul style="list-style-type: none"> ● Establish systems to definitively reduce complaints, process abnormalities, and defects, prevent defective products from leaving Zeon, create corporate quality trusted by customers, and further improve customer satisfaction ● Develop initiatives for chemical substance regulations ● Develop Zeon's quality management system at Zeon Group companies outside Japan and at outsourcing partners
Sustainable consumption <ul style="list-style-type: none"> Developed and launched a series of products that are beneficial to society 	<ul style="list-style-type: none"> △ Develop business activities based on business plans 	<ul style="list-style-type: none"> ● R&D, manufacturing, and sales focused on consumer-related social issues

Quality Assurance

Quality Assurance Policies

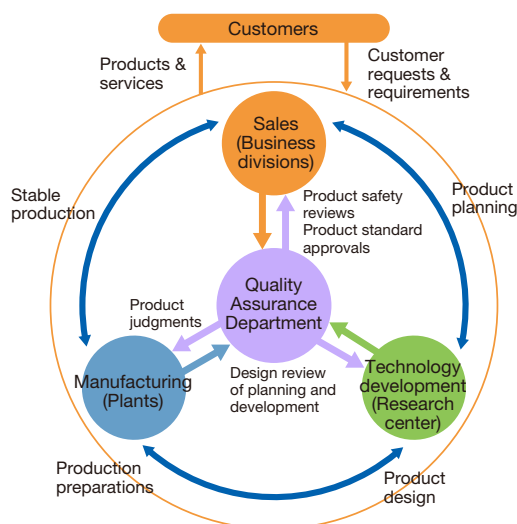
In accordance with our basic philosophy and CSR Policy, we define our basic policy for quality assurance as follows.

<p>Basic Policy for Quality Assurance</p> <ol style="list-style-type: none"> 1. We contribute to society by providing high-quality products, goods and services with excellent reliability and safety to the market. 2. We fully understand and predict user demands and provide products, goods and services that users can use with satisfaction. 3. In each quality assurance step, we establish an internal system that can assuredly evaluate high-quality products, goods and services with excellent reliability and safety. 4. We establish technologies that can produce products, goods and services with the target quality in terms of reliability and safety.

Quality Assurance System

To consistently manufacture products that reflect the needs and wants of customers and to ensure product quality, Zeon is advancing integrated quality assurance activities companywide, across manufacturing, sales, and engineering functions, by strengthening cooperation between plants, departments and research units (R&D Center).

Quality Assurance System



Mid- to Long-Term Initiative Policy and Initiatives from FY 2017

In our mid- to long-term management plan SZ-20, we set the 2020 quality assurance goal of “global uniform quality and cost compatibility.” For the three years of FY 2014 to FY 2016, we defined our quality assurance policy as “Aim to create mechanisms that will facilitate quality assurance even if things change (even if Zeon or the world changes).” We then conducted quality assurance activities to achieve this.

To develop this quality assurance policy across Zeon Group over four years starting in FY 2017, we revised the policy to read, “Aim to create mechanisms that will facilitate Zeon Group quality assurance even if things change (even if Zeon or the world changes).” We are conducting quality assurance activities across Zeon Group to this end.

Framework Supporting Quality Assurance at Zeon

To ensure a consistent supply of high-quality products to our customers, we have put in place various quality assurance systems in accordance with internal regulations on quality assurance and conforming to the ISO 9001:2015 international standard for quality management systems.

1. Acquisition of international quality standard certifications by Zeon Corporation

In 2010, we integrated the ISO 9001 certifications obtained throughout Zeon and have maintained this. In the 2017 regular inspection, we also received a transition inspection to the 2015 version and completed the transition.

2. Status of Zeon Group Certifications for International Quality Standards

Site		ISO 9001*1	ISO 13485*2
Japan	Zeon Kasei Co., Ltd.	○*3	
	Zeon Polymix Inc.	○	
	Zeon Medical Inc.		○
	Zeon North Co., Ltd.	○	
	Tokyo Zairyo Co., Ltd.	○	
	Zeon Chemicals Yonezawa Co., Ltd.	○	
	Optes Inc.	○	
Outside Japan	Tohpe Corporation	○	
	Zeon Chemicals L.P.	○	
	Zeon Chemicals (Thailand) Co., Ltd.	○	
	Zeon Advanced Polymix Co., Ltd.	○	
	Zeon Chemicals Singapore Pte. Ltd.	○	

*1 ISO 9001 is the international standard for achieving ongoing improvements in enhancing customer satisfaction and quality management systems through product and services quality assurance.

*2 ISO 13485 is the global standard for quality management systems in the field of medical devices for the purpose of continued manufacture and provision of safe and useful medical devices. The standard has added requirements specific to medical devices while omitting some of the ISO 9001 requirements.

*3 The logistical materials division has acquired certification limited to STEC®.

Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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Framework to Achieve Product Safety

1. Product safety reviews

We strive to ensure product safety in every possible aspect by conducting product safety reviews (PSRs) using our own checklists that consider product safety at every stage of the product lifecycle, from initial product development through planning, design, manufacturing, sales, use, and disposal.

2. Chemical substance regulatory compliance

The regulatory environment for chemical substances management is undergoing major change globally, with laws and regulations on chemical substances being amended not just in the United States and Europe but also in Japan and Southeast Asia. As a result, the number of regulations to comply with is rising sharply. To comply with these regulations at Zeon, we are creating a database of the substances in our raw materials and products, even those present in minute quantities, and building a chemical substances management system capable of continuously tracking the most up-to-date regulatory information, safety information, and other relevant information.

Audits

PL Audits

PL audits are audits performed by an auditing team led by the director in charge of CSR and covering product liability (PL) and product safety. PL audits are conducted for product liability activities for products of Zeon business divisions spanning all stages of development, manufacture, use, final consumption, and disposal.

Quality Audits

Quality audits are audits performed by an auditing team led by the head of the Quality Assurance Department that focus on checking the progress of implementing quality improvement activities. They are conducted at Zeon's business divisions, plants, laboratories, and affiliated companies.

Internal Quality Audits

Internal quality audits are conducted for the purposes of evaluating whether Zeon's quality assurance management system is operating effectively and efficiently based on ISO 9001:2015 and promoting ongoing improvements. The audits are based on ISO 9001 and structured so that the requirements of ISO 9001 are satisfied as long as Zeon's internal regulations are being complied with. The audits also focus on customer satisfaction and total optimization, and are conducted for all of Zeon Group by an auditing team comprised of auditors from other divisions to the extent possible.

Communicating Safety Information

For more information about safety information for chemical products handled by Zeon, see Chemical Product Safety Information (→ P42).

Human Rights

- Targets and Results** P 63
- Upholding Positive Working Environments by Protecting Human Rights and Prohibiting Discrimination** P 63
- Protecting Human Rights in the Supply Chain** P 64

Targets and Results

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Discrimination and vulnerable groups Avoidance of complicity <ul style="list-style-type: none"> • The section on respect for human rights and prohibition of discrimination in the CSR Code of Conduct has been shared with all Zeon Group companies and Zeon Group business partners, and compliance with the prohibitions on child labor and forced labor are confirmed 	<ul style="list-style-type: none"> ■ Publish the Corporate Report and release Zeon Group's CSR Code of Conduct and CSR Procurement Guidelines on the Zeon corporate website △ Build awareness in-house by having employees read the CSR Textbook and Compliance Textbook and take e-learning courses △ Conduct CSR education including CSR informational sessions 	<ul style="list-style-type: none"> ● Familiarize business partners with the CSR Code of Conduct and CSR Procurement Guidelines ● Create a database of external reports on respect for human rights at business partners (called the Supply Chain CSR Survey Database) ● Enact a policy on human rights and establish it throughout Zeon Group

Upholding Positive Working Environments by Protecting Human Rights and Prohibiting Discrimination

In the respect for human rights and prohibition of discrimination provision of the CSR Code of Conduct for Zeon Group, we state our goal of being a company that is understanding and accepting of diverse values and where no one is discriminated against based on gender, age, nationality, or other attribute.

Zeon Corporation CSR Code of Conduct (Excerpt)

(Respect for human rights and prohibition of discrimination)
 We will make efforts to maintain a sound working environment at all times, respect the human rights of each individual, and not engage in any act that may lead to discrimination.

1. We will not commit unlawful discrimination based on birth, nationality, race, ancestry, creed, religion, sex, age, disability, preference, academic history or any other characteristic.
2. We will not force business operations through violence, jeering, abusing, smearing and threatening behavior, nor will we infringe upon human rights through bullying and other such acts.
3. We will not engage in child labor and forced labor nor will we purchase any product manufactured through such labor.

Studying the CSR Textbook and the Compliance Textbook and E-learning

Employees periodically study the Compliance Textbook in their department. Their level of compliance understanding is checked using an e-learning course each July. Questions are set respectively for management, business, manufacturing, and R&D divisions to assess whether the knowledge and information needed to ensure compliance is sufficiently understood.



Checking the level of compliance understanding through e-learning

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CSR Education Including CSR Informational Sessions

In FY 2016, the eighth CSR informational session was held. The session topic was whether Zeon Group was meeting the expectations of society, and our goal of being able to answer this question in the affirmative. The discussion focused on linking our CSR activities to the SDGs and raising awareness for thinking about how we can meet the expectations of society.

日	2016年8月	2016年9月	2016年10月
第1日	2016年8月	2016年9月	2016年10月
	SDGsの概要と、SDGsとCSRの関係	SDGsの概要と、SDGsとCSRの関係	SDGsの概要と、SDGsとCSRの関係
	SDGsの概要と、SDGsとCSRの関係	SDGsの概要と、SDGsとCSRの関係	SDGsの概要と、SDGsとCSRの関係

 The slide also features a diagram on the right side titled '多様な視点 (一人ひとりの納得)' (Diverse Perspectives (Satisfaction of Each Person)) showing the relationship between 'CSR基本方針' (CSR Basic Policy) and 'SDGs'."/>

Materials for the CSR informational sessions

Protecting Human Rights in the Supply Chain

Respect for human rights and considerations for work environments form part of the Requests to Suppliers section of the CSR Procurement Guidelines.

Building a database

We currently plan to complete the Database of Supplier Initiatives for Human Rights, which compiles the results of surveys we conduct on the human rights initiatives undertaken at our suppliers, in FY 2017.

Using this database, we will build the Supply Chain CSR Survey Database, which compiles information reported by suppliers. We will then use this tool to promote human rights due diligence in our supply chain.

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Community

Basic Approach and Initiatives	P 65
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Basic Approach and Initiatives

We believe that contributing to the development of local communities and building strong relationships of trust are crucial to conducting stable business activities and creating improved products and services.

Zeon's Approach to Social Contributions

We believe that social contributions are essentially carried out through our core businesses. As a corporate citizen, however, the complex set of issues faced by society and company activities are not independent of one another. We are therefore undertaking social contribution activities outside of our core businesses to engage with society from a broader perspective.

In 2012, we launched CSR Core Projects, which are initiatives we selected from proposals submitted by Zeon

Group companies. The CSR Core Projects are activities that focus on social contributions outside the scope of our core business operations and provide employees with an opportunity to turn their attention toward social issues.

We plan and develop activities in three broad categories: 1) various activities related to supporting reconstruction from the Great East Japan Earthquake, 2) shared projects conducted across multiple Zeon's plants and Group companies, and 3) projects conducted independently by Zeon's plants and Group companies. We are developing these activities with a focus on their synergistic benefits.

Targets and Results

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities and results (△: Ongoing, ■: Completed)	Future initiatives and targets
Community involvement, education, and culture <ul style="list-style-type: none"> Zeon's social contributions are understood, receive recognition, and are supported 	△ Develop the CSR Core Projects (social contribution activities by Group as a whole, among locations, and at individual worksites)	<ul style="list-style-type: none"> Develop the CSR Core Projects based on the defined Zeon Group activities policy
Community involvement <ul style="list-style-type: none"> An organization for promoting volunteer activities among employees including retirees is established and employees actively volunteer in various ways 	△ Upgrade and enhance the system for promoting volunteer activities (establish a system for taking leave to volunteer) △ Introduce volunteer activities and promote and support participation in them (Volunteering to support reconstruction from earthquakes, etc.) FY 2016 Results Number of employees participating in volunteer tours: 68 (cumulative total of 365 employees)	<ul style="list-style-type: none"> Raise employee awareness for social contributions Conduct CSR education including CSR informational sessions Establish a social contribution policy for the entire Zeon Group (e.g., on water) Create a system to support volunteering (volunteer registration system, etc.) Create opportunities for social contributions from exchanges with local councils of social welfare, non-governmental organizations and non-profit organizations
Community involvement <ul style="list-style-type: none"> Guidelines for coexisting with local communities have been created and are used, and good relations have been built with local communities 	△ Donations and charity activities (Furukawa Scholarship, expenses for community promotions, Red Cross, etc.) △ Maintain good community relations and have community exchanges <ul style="list-style-type: none"> Sponsor and participate in community festivals and events including summer festivals at plants Community cleanup activities Plant tours (receive plant visitors, internships) 	<ul style="list-style-type: none"> Maintain and expand exchanges with local communities Support the reconstruction of the Tohoku region Establish and implement ongoing ways to support the reconstruction from the destructive earthquake Actively participate in community activities Revitalize social contribution activities through local social welfare councils Create standards for supporting disaster recovery

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Furukawa Scholarship

The Furukawa Memorial Foundation is an incorporated foundation with a 50-year history of granting scholarships to Japanese and foreign students experiencing financial

hardship to encourage them to continue their education. We are maintaining our involvement in the foundation to assist its activities.

To date, the foundation has awarded scholarships to a total of 3,067 people.

CSR Core Projects

The CSR Core Projects are activities that focus on social contributions outside the scope of our core business operations.

Status of CSR Core Project Initiatives

Project	Detailed initiative	FY 2017 target
Support for Great East Japan Earthquake reconstruction		
Participation in reconstruction volunteer tours	Started in October 2012 45 tours as of March 2016 (total of 297 participants) Disaster recovery assistance (Minamisanriku, Rikuzentakata), agricultural assistance (Iwaki), fishing industry assistance (Kesenuma), etc.	Continue the initiative (Frequency target: 1–2 times per month)
Eat and Root for Restoration! campaign	Support the recovery of industries by eating foods grown in the disaster-affected areas Offer a menu of Tohoku-grown foods at the employee cafeteria and Z Plaza (employee lounge)	Continue the initiative
Participate in building a forest embankment to protect lives*	Support for and participate in tree planting for Heisei-no-mori in Otsuchi Town (sponsored by Yokohama Rubber and Otsuchi Town, Iwate Prefecture) since FY 2013	The tree planting was concluded in FY 2015. Maintain our ties with Otsuchi Town through activities including post-planting maintenance
Shared projects		
Chemistry Classroom	Summer vacation events and classes where local residents conduct experiments while touring our locations Head Office: Children's summer holiday chemical experiment show (since FY 2013) Tokuyama Plant: Experiment classrooms during industrial tourism tours for parents and children Zeon Chemicals Yonezawa: Experiment classrooms at the Youth Science Festival in Yamagata	Hold chemistry classrooms (increase the number of events held at our locations) Expand the conducted experiments (create a new experiment package)
Eco-cap recycling campaign (collecting used plastic caps)	Began counting caps at all Zeon Group companies in FY 2012	Continue the initiative
Green purchasing of office supplies	Purchasing office supplies with minimal environmental impact (notebooks, book-binding tape, folders, etc.). Of the 44 items stipulated under the Green Purchasing Law, we switched to 22 items (50%)	Continue the initiative
Independent projects		
Topics selected by promotional committees	Engaging with local communities Participation in community events: Sponsor and provide support for various events Cleanup activities Educational support: Internships, sending instructors to schools, etc.	Continue the initiative

*Forest embankment to protect lives

This activity creates a forest that will act as an embankment protecting local residents against tsunamis. This consists of combining debris from the disaster with soil to build an elevated area along the coastline, which was damaged during the tsunami triggered by the Great East Japan Earthquake. Various trees native to the area are being planted on the elevated ground to create a multilayer forest.

Contents	Highlights	Zeon's CSR	Corporate Governance	Environment
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Examples of Initiatives

Following are some examples of activities that are part of the CSR Core Projects. Many other activities conducted with local communities are described in the Site Reports.

Volunteering to support Great East Japan Earthquake reconstruction

We invite employees to sign up for restoration volunteer tours open to the public and send employees on the tours on an ongoing basis. We cover the full cost of the tours to encourage employee participation.

This initiative began in October 2012. In FY 2016, 68 employees participated in volunteer tours. They assisted with repair work and searched for lost articles in Rikuzentakata City, Iwate Prefecture; provided assistance for the fishing industry in Kesenuma City, Miyagi Prefecture; and agricultural assistance in Iwaki City, Fukushima Prefecture.

We turn *support* into *encouragement*, and *encouragement* into *exchange*. We intend to continue this initiative in light of the risk that the memory of the devastation will be forgotten.



Assisting the fishing industry in Kesenuma City, Miyagi Prefecture

Helping plant trees in a disaster-affected area

Since 2012, Otsuchi Town in Iwate Prefecture and Yokohama Rubber Co., Ltd. have conducted a tree-planting campaign called Heisei-no-mori in Otsuchi Town as a model case for creating a forest embankment to protect lives in the local community. We have participated in this tree-planting campaign since 2013. The fourth round of the tree-planting in 2015 was the last one as the campaign. However, we continue to participate in activities by maintaining the trees planted on the site and providing tree-planting education for local elementary school children through extracurricular lessons.



Tree-planting education at Otsuchi Gakuen

Chemistry Classrooms

Based on the motto of “nurturing future Nobel Prize winners in chemistry,” we hold chemistry experiment classrooms in various areas to communicate the appeal of chemistry to children.



Educational booth at the Dream Chemistry 21 Summer Holiday Children's Chemical Experiment Show 2017
Zeon Corporation conducted the “Let's Play with Rubber and Make a Superball!” experiment with children



RIMTEC: participation in and award for the Omoshiro Taiken (fun experience) Day, an event held at Okayama Research Park
We received the 2016 Chemistry Communication Award from the Japan Union of Chemical Science and Technology in recognition of this activity conducted jointly with Okayama University since FY 2012.



Participating in Yamagata Prefecture experiment classrooms
We set up an experiment craft booth at the 2016 Youth Science Festival in Yamagata

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Support for Education

Zeon's plants and Group companies conduct exchanges with and offer assistance to various educational institutions. We offer internships for high school, technical college, and university students, and give tours of our plants to school children. We also provide other support to schools, such as sending special instructors to provide lessons.



Takaoka Plant: plant tour



Kawasaki Plant: plant tour

Dialogue with communities

Plants participate in community dialogue as part of the Responsible Care Council activities and communicate information on environment-related improvements, safety, and disaster preparedness during plant tours for representatives of local governments and community residents.



Responsible Care community dialogue at Kawasaki Plant
We invite representatives of local residents' associations with eight member companies of the Kawasaki district of the Responsible Care Committee.



Community dialogue activities by Zeon Chemicals (Thailand) Co., Ltd in Thailand

Holding and Participating in Community Events

We place great importance on our ties with local communities. Zeon's plants and Group companies hold various events including summer festivals and welcome opportunities to participate in community events.



Summer festival held at Takaoka Plant



Mizushima Plant participating in a community event to make rice cake

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Zeon Polymix: participating in an event to eradicate invasive species from Lake Biwa's ecosystem



Many employees from Takaoka Plant, Optes, Zeon North, and Zeon Medical participate in coastal clean-up activities



Zeon Yamaguchi: participating in 24-hour and 6-hour relay marathons

Relationship with the local community

We engage in activities with local communities in various regions.

Community cleanup activities

With the goal of being useful to and benefitting local communities, Zeon's plants and Group companies conduct community cleanup campaigns around their sites and beyond.



Zeon Chemicals L.P. (ZCLP) in U.S.A. has conducted volunteer activities and donation drives for many years. The ZCLP Corporate team selected Make-A-Wish® as our 2016 charity



Community cleanup activities around Tokuyama Plant



Thailand-based companies Zeon Advanced Polymix Co., Ltd. and Zeon Chemicals (Thailand) Co., Ltd. have conducted volunteer cleanups and charity activities for many years. The companies make donations to various groups including schools, nearby temples, hospitals, and educational institutions

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