Report Policy

At ZEON Corporation and the ZEON Group, so that all of our stakeholders can understand our approach to CSR and activities for the environment, we began publishing the Responsible Care Activity Report in fiscal 2000 and the CSR Report including a report on social aspects since fiscal 2006.

This FY2013 report serves the purpose of an annual report and corporate brochure. We have changed the name of the report to "CORPORATE REPORT" as a step toward giving a broader overview of our overall business from both management and CSR perspectives.

In our Highlights section, we discuss the contribution ZEON products are making to the expanding smartphone demand, and report on our overseas business and social contribution activities.

We ask for your honest feedback and opinions so that they may be used to improve our activities in the future.

Period Covered
April 2012 to March 2013
(also includes some new information from April 2013 and later)

Organizations Covered
The report covers ZEON Corporation and Group companies in Japan and overseas. Some data only covers ZEON Corporation.

Notes on the Report

*When indicating company names, “ZEON” is indicated in capital letters.

Printed brochure and website version of this report
ZEON’s Report is available in two different formats: a printed brochure (CORPORATE REPORT) and website version (CSR Website). Website version can be accessed on ZEON Corporation’s website. In keeping with our editorial policy, the printed version contains a wide range of information that comprehensively covers all of ZEON’s business activities. The website version includes detailed performance mainly covering CSR activities and also site reports.

Printed brochure
Website version

CSR Section of ZEON’s Website
http://www.zeon.co.jp/csr_e/index.html
Home > CSR
**Corporate Philosophy**

**Established** April 1997

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.

- We will ensure compliance and meet society’s needs for safety and security
- We will contribute to sustainably developing society and protecting the global environment through our corporate activities
- We will ensure that each and every ZEON person is aware of CSR and acts accordingly

**Company Name**: ZEON Corporation  
**Establishment**: April 12, 1950  
**Capital**: 24.2 billion yen (as of March 31, 2013)  
**Employees**: 3,163 (Consolidated) 1,606 (Non-consolidated; as of March 31, 2013)

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**Zeon’s Businesses**

Zeon’s main products are made from C4, C5 fractions-a derivative of distilled naphtha, which is obtained by distilling petroleum. We produce a variety of materials by using our proprietary technologies to extrude and process C4, C5 fractions. We not only use C4, C5 fractions but also optimally utilize petroleum, which is a natural ingredient from the earth to produce a diverse range of products.

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*1 GPB: ZEON process of butadiene. This is a proprietary ZEON technology used to extract highly pure butadiene from C4 fraction.

*2 GPI: ZEON process of isoprene. This is a proprietary ZEON technology used to extract isoprene and other highly pure effective substances from C5 fraction.

*3 COP: Cyclo-olefin polymers
Review of Operations

ZEON manufactures a diverse range of products by leveraging its globally superior, innovative, technological development capabilities. Our operations are comprised of the Elastomer Business, with a product line which enhances the capabilities of the raw materials; our Specialty Material Business, with its high value-added products manufactured using advanced technology, and other processed products; and Other Businesses.

Elastomer Materials Business

Our Elastomer Business consists of the three areas of the synthetic rubber, synthetic latex, and chemicals businesses.

**Synthetic rubber business**
Our products include a styrene-butadiene rubber (SBR) with advanced anti-friction properties, butadiene rubber (BR) with superior elasticity, and isoprene rubber (IR), which has the same composition as natural rubber. We manufacture such synthetic rubber featuring various characteristics, which we deliver to major tire manufacturers around the world. In addition to this, we produce synthetic rubber including Zetpol®, designed specifically for automotive engine parts, featuring top-quality thermal resistance and superior oil resistance.

**Synthetic latex business**
Latex is a liquid rubber. At ZEON, we manufacture synthetic latex for a variety of product applications, such as powder puffs and rubber gloves.

**Chemicals business**
ZEON manufactures petroleum resins and elastomer SIS used in adhesive tape and hot melt adhesives. Petroleum resins are also used for traffic paints (for road paints).

**Technology licensing business**
ZEON licenses its proprietary GPB method, and various elastomer production technologies in 23 countries worldwide.

**RIM combination liquid and molded items business**
We manufacture materials for domestic washbasins and baths, as well as large-scale plastic products, including truck bumpers, using our Reaction Injection Molding (RIM) method which utilizes dicyclopentadiene (DCPD) as a raw material.

Specialty Materials Business

Through our synthesis and processing technology, we develop materials and components with advanced functions. Focusing on future growth areas, we are positioning the IT components, energy components, and medical devices businesses as three key business domains.

**IT components business**
Cycloolefin polymers (COP) have superior optical properties. COPs are used in optical products such as small camera lenses, and also as optical film for LCD televisions and smartphones. We also manufacture components that use the advanced properties of COP.

**Energy components business**
ZEON manufactures components (binders and sealing compounds) used for mobile phones and notebook PCs, and more recently in automobiles and other products. Our products help to improve the safety and life of lithium-ion batteries and contribute to the realization of increased capacity.

**Medical Products (medical devices) business**
ZEON is developing a structure that comprehensively deals with the development, manufacturing, sales, and pharmaceutical affairs, mainly in the areas of the circulatory, nutritional and gastrointestinal systems. We produce a variety of catheters and devices for stone removal.

**Chemicals business**
We manufacture chemicals, including highly safe synthetic aroma chemicals used in foods and cosmetic and hygiene products, and solutions with special functions that are used for various applications.

Other Business

3 | ZEON GROUP CORPORATE REPORT 2013
Surprisingly ZEON: ZEON is All Around Us!

ZEON products are highly versatile, functional materials used in all kinds of things you see and use every day. Take a look around and you might be surprised to find ZEON right under your nose—or even your feet!

**Rubber gloves**
Known for having few impurities and allergens and being highly resistant to oil and chemicals, our synthetic latex is widely used in rubber gloves of all kinds, including medical gloves, gloves used in the kitchen, and work gloves.

**Tires**
ZEON manufactures synthetic rubber for automobiles. Much attention in recent years has been given to synthetic rubber that improves tires’ ability to roll more easily (better fuel efficiency for the car) and stop better (safer for occupants), two properties that usually are mutually exclusive. Such tires help protect the global environment as they increase the vehicle’s fuel efficiency and thus reduce CO2 emission.

**Lithium-ion batteries**
Lithium-ion batteries are used as a power source in a wide array of electronics, from hybrid vehicles to mobile phones and laptop computers. ZEON’s binder (an adhesive) helps make batteries safer and last longer. Use of this binder is expected to increase dramatically as the electric car market takes off.

**Automotive parts**
Zetpol® is an oil- and heat-resistant, long-lasting synthetic rubber that commands the largest share of the global market. Energy efficient and eco-friendly, Zetpol is widely used in automotive parts such as engine timing belts.

**Roadmarking paints**
ZEON’s petroleum resins are also used in traffic paints used to mark white and yellow lines on roads and crosswalks. These resins are made from an ingredient called piperylene, which ZEON extracts from naphtha using proprietary extraction technologies.

**Powder puffs**
Synthetic latex is also used in powder puffs for makeup application. Roughly 90 percent (estimate by ZEON) of the world’s powder puffs made from NBR latex use ZEON latex because of its high performance and ease of processing.

**Sink bowls, bathtub pans**
RMTEC, a group company, manufactures and supplies raw materials used to make plastic molded products such as sink bowls and bathtub pans. The materials are made from an ingredient called dicyclopentadiene, which ZEON extracts from naphtha using proprietary extraction technologies.

**Perfumes, shampoos, conditioners**
ZEON aroma chemicals are used in cosmetic and hygiene products, food products, and various everyday goods. Green aromas chemicals lend a fresh, crisp scent like green foliage, while jasmine aroma chemicals release a sweeter, floral scent. Lactone aroma chemicals are essential ingredients in dairy products. Our green aroma chemicals take the largest share of the global market.

**Televisions, smartphones, tablet devices**
ZeonorFilm®, produced using the world’s first environmentally friendly sheet extrusion process, has superior optical performance and is used in LCD televisions, smartphones, and tablet devices.

**Housing materials**
ZEON Kasei, a group company, supplies various user- and environment-friendly construction materials such as sound insulating materials, vibration damping materials, and siding to make time spent at home more comfortable.

**Digital cameras**
ZEONEX®, a highly functional resin developed by ZEON with superior optical properties, high transparency, and very high purity, is used to make optical components for digital cameras and camera lenses for mobile phone cameras.
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Contributing to Our Future Society

ZEON develops products by using its R&D expertise to discover new possibilities in view of the needs of society and its manufacturing technologies to realize these products.

We aim to contribute significantly towards progress in society by promoting our various technologies and new materials to achieve the future today through the power of chemistry.

Business Performance & Performance Summary - related CSR

Below are the financial and non-financial results for the past five years.

Consolidated Net Sales

Due to the economic slowdown and accompanying market stagnation, consolidated net sales fell over the last three terms. Looking towards the future, we are aiming for 500 billion yen by fiscal 2020 through business expansion.

Consolidated Ordinary Income

Due to rising raw material prices and insufficient price pass-through, consolidated ordinary income decreased over the last three terms. However, thanks to cost reduction measures we are maintaining a profit ratio of 10%.

Net income and EPS

Net income is being handled with a view towards maintaining a proper balance of return to shareholders and re-investment for growth.

ROE

It is vital to build a product profit structure that is not affected by external environment factors. We are aiming to improve capital efficiency by making efforts to expand sales including moves into overseas markets.

Net Sales by Region

By 2020, we plan to achieve an overseas production ratio of 50%, in particular by establishing production sites in Asia as a growth market.

Employees

Typically, figures remained largely unchanged, however we experienced an increase in group company employees overseas in fiscal 2012 due to accelerated overseas expansion.

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- Improved performance of rubber materials for engines
  - Fuel of cars to enhance engine suitability
  - High heat resistance and durability to facilitate cleaner diesel engine compatibility

- Materials to enhance battery performance in electric cars and hybrid vehicles

- Optical films to improve picture quality of large-scale commercial displays

- Tire materials to assist fuel efficiency

- Gas and chemicals that facilitate the manufacture of higher-performance semiconductors

- Complte new material
  - Single wall carbon nanotube
    - Vehicles and construction materials that use lightweight and durability
    - Electrical materials that utilize thermal and electrical conductivity

- Materials that improve battery performance in mobile devices

- Innovative medical devices
  - Next generation circulatory devices
  - Tools for endoscopic surgery

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Notwithstanding a temporary drop in R&D expenses, a figure of around 10 billion yen was maintained. A similar expenditure level will be maintained also in the future, regardless of sales.

Because environmental and safety related equipment investments are made in response to actual situations, relatively large fluctuations may occur, depending on the year.

* Data are for ZEON Corporation only.

The increase in fiscal 2011 is mainly due to donations in support of victims of the Great East Japan Earthquake. In fiscal 2012, investments for CSR activities were expanded.

* Aggregation was commenced from fiscal 2010. Data are for ZEON Corporation only.

Energy usage efficiency is improving continuously, due to factors such as higher product values, improved production efficiency, and energy saving measures.
Major Sales & Production Bases

ZEON is moving forward with the globalization of its businesses operations, having turned its attention to overseas markets in the 1970s. We are setting up sales networks in major markets around the world and establishing a production system for rubber and resin products. In addition, we have R&D facilities in the US and Europe. We are also building R&D and sales base in China, a market which is growing rapidly. We are aiming to become a company that, through its local production systems, builds close ties with local communities and contributes to the global society.

Global bases (as of April 1, 2013)

Europe
- ZEON Chemicals Europe Ltd.
- ZEON Europe GmbH
  - ZEON Europe GmbH - Branch in France
  - ZEON Europe GmbH - Branch in Spain
  - ZEON Europe GmbH - sede secondaria in Italia
- Telene S.A.S.

Asia and Oceania
- ZEON (Shanghai) Co., Ltd.
- ZEON Trading (Shanghai) Co., Ltd.
- SHANGHAI ZEON Co., Ltd.
- ZEON Polymix (Guangzhou) Co., Ltd.
- TAKEHARA ZEON (Shanghai) Co., Ltd.
- Suzhou Rui Hong Electronic Chemicals Co., Ltd.
- ZEON Kasai (Changshu) Co., Ltd.
- ZEON KOREA CO., LTD.
- ZEON Shinhhwa Inc.
- ZEON CSC Corporation
- ZEON Asia Pte Ltd
- ZEON ASIA MALAYSIA SDN. BHD.
- ZEON Chemicals Singapore Pte. Ltd
- ZEON Chemicals (Thailand) Co., Ltd.
- ZEON Advanced Polymix Co., Ltd.
- ZEON Manufacturing Vietnam Co., Ltd.

*When indicating company names, “ZEON” is indicated in capital letters.
The Americas
- ZEON Chemicals L.P.
  - ZEON Chemicals L.P. West Coast Office
  - ZEON Chemicals L.P. R&D Center
  - ZEON Chemicals L.P. Kentucky Plant
  - ZEON Chemicals L.P. Mississippi Plant
  - ZEON Chemicals L.P. Texas Plant
- ZEON do Brasil Ltda

Japan (as of April 1, 2013)
- ZEON Kasei Co., Ltd.
- Tokyo Zairyo Co., Ltd.
- ZEON North Co., Ltd.
- ZEON Yamaguchi Co., Ltd.
- ZEON F&B Co., Ltd.
- ZEON Medical Inc.
- ZEON Polymix Inc.
- RIMTEC CORPORATION
- ZEON Rim Co., Ltd.
- ZEON Chemicals Yonezawa Co., Ltd.
- IBARAKI ZEON Kasei Co., Ltd.
- Okayama Butadiene Co., Ltd.
- Zis Information Technology Co., Ltd.
- Optes Inc.
- TFC Co., Ltd.
- TOHPE CORPORATION
- TOHPE Manufacturing Co., Ltd.
Group Company Data

**ZEON Corporation**
- **Head office**
  Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-8246, Japan
  Tel: +81-3-3216-1772 Fax: +81-3-3216-0501
- **R&D Center**
  1-2-1 Yako, Kawasaki-ku, Kawasaki, Kanagawa 210-9507, Japan
  Tel: +81-44-276-3721 Fax: +81-44-276-3720
- **Takaoka Plant**
  630 Ogino, Takaoka-shi, Toyama 933-8516, Japan
  Tel: +81-766-21-0252 (Direct) Fax: +81-766-21-8201
- **Kawasaki Plant**
  1-2-1 Yako, Kawasaki-ku, Kawasaki, Kanagawa 210-9507, Japan
  Tel: +81-44-276-3700 (Direct) Fax: +81-44-276-3701
- **Tokuyama Plant**
  2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023, Japan
  Tel: +81-834-21-8501 (Direct) Fax: +81-834-21-8793
- **Mizushima Plant**
  2-14-11 Ichibori, Nishi-ku, Osaka 550-0012, Japan
  Tel: +81-6-6536-2930 Fax: +81-6-656-6716
- **Osaka Office**
  Yotsubashi Park Building 3rd Floor, 1-4-10 Itachibori, Nishi-ku, Osaka 550-0012, Japan
  Tel: +81-6-6536-2930 Fax: +81-6-656-6716
- **Nagoya Office**
  TAK Bldg., 3-134 Hongno, Meito-ku, Nagoya 465-0024, Japan
  Tel: +81-52-769-5861 Fax: +81-52-769-5863

**ZEON Group (Consolidated subsidiary)**

**Japan**
- **ZEON Kasei Co., Ltd.**
  Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo
  **Business focus**
  Manufacturing and sale of packing materials, packing containers and distribution equipment
- **Tokyo Zainyo Co., Ltd.**
  Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo
  **Business focus**
  Trading
- **ZEON North Co., Ltd.**
  351 Ejiri, Takaoka-shi, Toyama
  **Business focus**
  Contracting, design, construction and management for various facilities; sale of industrial materials and equipment; purchase and sale of petrochemical products; Validating environmental measurement, measuring working environment; conducting various analyses
- **ZEON Yamaguchi Co., Ltd.**
  2-1 Nachi-cho, Shunan-shi, Yamaguchi
  **Business focus**
  Purchase and sale of civil engineering materials, packing materials, and various facilities; design and construction, contracting for various plants; environment analysis
- **ZEON F&B Co., Ltd.**
  Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo
  **Business focus**
  Agency business for nonlife insurance; loan and allocating business to each group company
- **ZEON Medical Inc.**
  Shuwa Shiba Park Building, 2-4-1 Shiba Kohen, Minato-ku, Tokyo
  **Business focus**
  Manufacturing and sale of medical equipment
- **ZEON Polymix Inc.**
  1-11-1 Ishizue, Ohtsu-shi, Shiga
  **Business focus**
  Manufacture of rubber compounds (CM)
- **RIMTEC CORPORATION**
  Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo
  **Business focus**
  Sales of RIM combination liquid and molded items
- **TOHPE CORPORATION**
  1-5-11 Chikushimachi, Nishi-ku, Sakai-shi, Osaka
  **Business focus**
  Sales of paints and specialty materials
- **TOHPE Manufacturing Co., Ltd.**
  2700 Togue, Iga-ku, Mie
  **Business focus**
  Manufacturing of paints and specialty materials
The Americas

ZEON Chemicals L.P.  ●▲
4111 Bells Lane, Louisville, Kentucky 40211, U.S.A.
Business focus: Manufacture and sale of synthetic rubbers

ZEON do Brasil Ltda  ●
Rua Aranda, 1544, Sao Paulo SP, Brazil
Business focus: Sale of synthetic rubbers and resins

Europe

ZEON Chemicals Europe Ltd.  ●▲
Sully Vale of Glamorgan, CF64 5ZE, United Kingdom
Business focus: Manufacture and sale of synthetic rubbers

ZEON Europe GmbH  ●▲
Hansaallee 269, 40549 Dusseldorf, Germany
Business focus: Sale, export, and import of synthetic rubbers and resins

Teleene S.A.S.  ●
2, rue Marie Curie - 59910 Bondoues, France
Business focus: Development and distribution of Telene® DCP-RIM resin

Asia and Oceania

ZEON Trading (Shanghai) Co., Ltd.  ●▲
Room 1501, Hongwell International Plaza, No.1600 Zhongshan West Road, Xuhui District, Shanghai, Code:200235, China
Business focus: Sale, export, and import of synthetic rubbers and chemicals and related products

SHANGHAI ZEON Co., Ltd.  ●
No.380, Sheman Road, Zinzhuang Industry District, Minhang, Shanghai, 201108, China
Business focus: Manufacture and sale of rubber compounds (CM)

ZEON Polymix (Guangzhou) Co., Ltd.  ●
Jing Quan 1st Road, Yong He Economic Zone, Guangzhou, 511356, China
Business focus: Manufacture and sale of rubber compounds (CM)

ZEON Shinhwa Inc.  ●
504, Diplomatic Center B/D, 1376-1, Secho-Gu, Seoul, Korea
Business focus: Sale of electronic materials

ZEON Asia Pte Ltd.  ●▲
331 North Bridge Road, #20-01/02, Odeon Towers, Singapore 188720
Business focus: Sale, export, and import of synthetic rubbers, synthetic latex and petroleum resins

ZEON Chemicals Singapore Pte Ltd.  ●
331 N Bridge Rd, Singapore 188720
Business focus: Manufacture of synthetic rubbers

ZEON Chemicals (Thailand) Co., Ltd.  ●
3 Soi G-14, Pakorn-Songkhlorad Road, Tambol Huaypong, Amphur Muangrayong, Rayong 21150, Thailand
Business focus: Manufacture and sale of petroleum resins

Japan

ZEON Chemicals Yonezawa Co., Ltd.  ●▲
3-446-13 Hachimanpara, Yonezawa-shi, Yamagata
Business focus: Manufacturing, processing and sale of aromatic chemicals, the middle objects of medicine and agricultural chemicals, and RIM combination liquid

IBARAKI ZEON Kasei Co., Ltd.  ●▲
1175 Kamiizushima, bando-shi, Ibaraki
Business focus: Manufacturing of processed plastic products (PVC compounds), powdered rubbers and molding products with resin sheet

Okayama Butadiene Co., Ltd.  ●
3-1-11 Nihonbashi Honcho, Chuo-ku, Tokyo
Business focus: Manufacture and sale of butadiene monomer

Zis Information Technology Co., Ltd.  ■
Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo
Business focus: Consulting about data processing systems; sales and maintenance of computer and office automation equipment

Optes Inc.  ●
422-1, Fatamamishin, Takazaka-shi, Toyama
Business focus: Manufacturing of optical film and optical parts; design and manufacturing of metallic molding

Asia and Oceania

ZEON (Shanghai) Co., Ltd.  ●
Room 1502, Hongwell International Plaza, No.1600 Zhongshan West Road, Xuhui District, Shanghai, Code:200235, China
Business focus: Provide assistance to and exercise control over the ZEON Corporation Group companies in China with regard to such functions as accounting, finance, personnel management, legal, etc.

TAKEHARA ZEON (Shanghai) Co., Ltd.  ■
No.380, Sheman Road, Zinzhuang Industry District, Minhang, Shanghai, 201108, China
Business focus: Manufacture and sale of silicone rubber compounds (CM)

Suzhou Rui Hong Electronic Chemicals Co., Ltd.  ●
No.501, Minfeng Road, Economic Development Zone, Wuzhong District, Suzuhou City, Jiangsu, China
Business focus: Manufacture and sale of photoresist

ZEON KOREA CO., LTD.  ●▲
No. 403, 4FL, City Air Tower 159-9 Samseng-dong Gangnam-gu Seoul, 135-973, Korea
Business focus: Sales and import of optical materials, electronic materials, synthetic resins, synthetic rubbers

ZEON Asia Pte Ltd.  ●▲
331 North Bridge Road, #20-01/02, Odeon Towers, Singapore 188720
Business focus: Manufacture of synthetic rubbers

ZEON Chemicals Singapore Pte. Ltd  ●
331 N Bridge Rd, Singapore 188720
Business focus: Sale, export, and import of synthetic rubbers, synthetic latex and petroleum resins

ZEON Advanced Polymix Co., Ltd.  ●
591 UBCII BLDG, Office No.2206, 22thFL, Sukhumvit 33rd, Klongton Nua, Wattanka, Bangkok 10110 Thailand
Business focus: Manufacture and sale of rubber compounds (CM)

ZEON Manufacturing Vietnam Co., Ltd.  ●
Land Lot No: IN1-6A and IN1-6B, VISP Haiphong Township, Industrial and Service Park, Dinh Vu-Cat Hai Economic Zone, Thuy Nguyen District, Haiphong city, Vietnam
Business focus: Manufacturing and sale of packing containers
ZEON Group History

Since its founding, ZEON’s strengths have been underpinned by its technologies. The group has developed and released highly competitive products. Going forward, ZEON aims to continue to take on new challenges, building upon its present fields of business.

Product history

Introducing some of our many products

1950 Launched PVC and synthetic rubber production

Nippon ZEON Co., Ltd. was founded as a PVC manufacturer in 1950, established through capital from three Furukawa group companies — Furukawa Electric Co., Ltd., The (present) Yokohama Rubber Co., Ltd., and Nippon Light Metal Co., Ltd. The company acquired its PVC manufacturing technologies from BF Goodrich Chemicals Co. in the United States, which at the time was the global leader in the industry. The PVC business was the company’s original business pursuit until its withdrawal from the business in 2000.

Furthermore, in 1959, ZEON acquired technologies from BF Goodrich to start up a acrylonitrile butadiene rubber (NBR) plant. This was Japan’s first domestic synthetic rubber plant. Following this, the company embarked on the production of styrene-butadiene rubber (SBR), ZEON thus established its synthetic rubber business, which produces synthetic rubber for tires and engine components, and which it continues to carry out today.

Developed proprietary GPB and GPI technologies that lead the world

In the petrochemical industry, which also uses crude oil as a raw material, technological capabilities are a key element impacting the competitive strength of a company, ZEON, aiming to secure butadiene, which is the raw material used for producing PVC and synthetic rubber, developed the GPB*1 process in 1965 to efficiently extract high-grade butadiene from C4 fraction. Moreover, in 1971, the company developed the GPI*2 process, to efficiently extract isoprene, the raw material for isoprene rubber (IR), and other useful components, from C5 fraction.

These are proprietary technologies of ZEON. The company is exporting its GPB technologies to countries around the world. This contributes substantially to the company’s competitive edge and promotes the ZEON name around the world.

1960 Shifting to comprehensive uses of C5 fraction

Isoprene rubber, made from raw materials obtained through the GPI process, is a useful material which has the same chemical stability as natural rubber. There are many substances that are derived as a by-product of this process however the GPI process also has advanced functionality for the separation of these by-products at a high degree of purity. ZEON has focused on the effective use of these various substances. The process was developed and applied to the production of petroleum resins and thermoplastic elastomer SIS in the 1980s, synthetic aroma chemicals and RIM molded items in the 1990s, and cyclo-olefin polymers in and after 2000. As a result, we have grown to be a business that accounts for a large share of the global market. Moreover, the technologies fostered during this development process are being used in areas other than C5 fraction.

1970 Going from pollution measures to environmental and safety measures and CSR activities

Since the 1960s, environmental regulations were enacted as pollution issues surfaced. ZEON’s plants also face a number of environmental issues. In response to this, ZEON developed and introduced numerous

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*1 GPB: ZEON process of butadiene. This is a proprietary ZEON technology used to extract highly pure butadiene from C4 fraction.

*2 GPI: ZEON process of isoprene. This is a proprietary ZEON technology used to extract isoprene and other highly pure effective substances from C5 fraction.
facilities. The company also established industrial analysis centers and contributed to the commissioned business of environmental analysis.

In later years, there was heightened social interest in the environment overall, not only pollution, and also chemical product safety. In 1995, the Japan Chemical Industry Association launched the Japan Responsible Care Council (JRCC). ZEON participated from the inception of the JRCC and also poured its energies into developing environmental and safety measures. In 1997, the company established ZEON’s 7 Articles, which is its code of conduct. In 2010, we expanded on this and issued our CSR Policy and CSR Code of Conduct. Since 2011, we deployed the CSR Core Projects initiative, whereby we systematically share local community activities that were previously conducted separately by each plant.

In recent years, there have been calls for sophisticated products which realize energy efficiency in response to environmental problems, and similar expectations are growing for chemical materials. In the synthetic chemical business, ZEON developed a hydrogenated nitrile rubber, Zetpol®. The material achieves both low cost and high functionality and is being used in automobile engine components, and other applications with strict requirements. In addition, cyclo-olefin polymers, developed from a comprehensive use of CS fraction, are high-performance materials used in optical films, such as for LCD panels and lenses, and also as a material for electrical insulating.

However, the realization of high functionality by these materials was not achieved solely through the properties of the chemical substance but also in large part due to ZEON’s manufacturing technologies developed to commercialize them. ZEON has thus established a unique and reliable technological platform incorporating these manufacturing techniques.

**Moving into the field of healthcare**

A high level of safety is essential for pharmaceuticals, medical devices, and other products related to human health. In light of this, the development of high value-added product is expected. ZEON entered the medical market in 1973 first with catheters for the urinary tract and for delivering anesthetics during surgery. Later, the company developed catheters mainly for artificial kidney and auxiliary artificial heart pumps and accumulated expertise to expand its business primarily into the area of medical equipment for cardiovascular, nutritional and gastrointestinal areas, such as catheters and stents.

**Diverse R&D**

ZEON possesses many proprietary and highly competitive technologies, such as the GPB process. We have conducted joint research with many industrial, governmental and academic bodies, in the advancement of new product categories. ZEON is conducting joint research with IBM related to semiconductor materials, which is producing innovative products. The company has won a number of awards for this product. Moreover, going forward, a wide variety of applications are anticipated for single-walled carbon nanotubes, for which the company has been carrying out research since 2006, mainly in partnership with The National Institute of Advanced Industrial Science and Technology.
Top Message

We will continue to expand our operations to achieve consolidated net sales of 500 billion yen and an overseas production ratio of 50% in fiscal 2020.

Chairman Naozumi Furukawa, newly appointed in July 2013 and President Kimiaki Tanaka explain initiatives to realize sustainable growth and future prospects in Q&A format.

Q1 What is the SZ-20 Mid-Term Management Plan you are implementing in order to realize your Enterprise Blueprint for 2020?

A1 In order to realize our Enterprise Blueprint for 2020, “ZEON creates the future today through the power of chemistry.” Our Mid-Term Management Plan through to fiscal 2013, which is aimed at achieving our Enterprise Blueprint for 2020, is called “SZ-20.” Its fundamental strategies are as follows.

(1) Company-wide business strategy
We will further strengthen our Elastomer Materials and Specialty Materials businesses to expand our operations globally.

(2) Promoting the corporate culture
We will promote the achievement of our Enterprise Blueprint for 2020 based upon visualization of the corporate culture.

Major changes in the business environment are forecast in the future, however there is no change in our company’s commitment “To contribute to the realization of customer dreams and a prosperous society” based upon our CSR Policy. We believe it is possible to achieve our mission by implementing projects based on the key sense of value (speed, dialogue, and social contribution) and qualities of ZEON we admire (mutual trust and fellowship).
Describe the progress of the SZ-20 Mid-Term Management Plan and the issues faced.

We are deploying measures to realize the long-term targets of 500 billion yen in consolidated net sales and an overseas production ratio of 50% in fiscal 2020 established in the business strategy for the SZ-20 Mid-Term Management Plan. With the results in fiscal 2012 of approximately 250 billion yen, we will need to increase sales by roughly double in order to achieve the target for fiscal 2020. To this end, we will successively establish bases, mainly overseas. Against the initial planned sales target of 320 billion yen for fiscal 2013, the final year of the SZ-20 plan, the outlook at the start of fiscal 2013 was 290 billion yen, which I believe indicates we are drawing slightly nearer to our goal.
What are your thoughts on R&D strategy?

Through innovative original technology that “do not imitate and cannot be imitated,” ZEON has developed products that are competitive and contribute to society. Our original technology and products that support us currently were born from research and development. Therefore, for us, research activities are our life and the origin of all of our business.

It will be important to continue creating innovation and persist in R&D non-stop in the future. We have made a variety of efforts, not merely for structural enhancement, but also involving joint development in several areas, to further enhance our R&D and achieve quicker results. The Specialty Material Business, in particular, is our new president,
What initiatives are you implementing to promote a corporate culture in order to realize your Enterprise Blueprint for 2020?

Our SZ-20 Mid-Term Management Plan contains the fundamental policies of the above-mentioned expansion of our business with our two business segments of Elastomer Business and Specialty Material Business working closely together with the achievement of our Enterprise Blueprint for 2020 based upon visualization of the corporate culture which will realize this.

It is “people” that conduct business activities, in other words, “human resources.” If we fail to foster human resources, we will be unable either to design plants or operate them. In order to be able to conduct business activities in all countries of the world including Japan, it is necessary to foster human talent. We are promoting “production innovation” on the basis of what we have “envisioned,” and are getting clear results at our Mizushima Plant. In the future, we want to expand this success to all of our plants. Also, for our overseas development, it will be important to foster talent among local human resources. We have already initiated a system for encouraging talent by inviting technicians employed in various regions to Japan.

What efforts are you making to deal with societal issues that ZEON is aware of?

First, there is the issue of “safety,” which is a precondition for all chemical companies. In recent years, there have been frequent accidents at chemical companies, so we must focus more attention on this. The aim of “production innovation” is to make production more efficient, but it also has the effect of increasing the safety of operations through the sharing of our accumulated knowledge and technical skills. We must build plants so as to provide the region and society assurance of their safety, in which “all of our employees can work all day again today with no accidents.”

Regarding the CSR Core Projects and CSR promotion plans that were advanced from 2012, what are your thoughts about future efforts, including aid for recovery from the Great East Japan Earthquake?

On the basis of our CSR Basic Policy and CSR promotion plans, ZEON is launching CSR Core Projects as an effort to lay the foundation for CSR activities. The CSR Core Projects are business operations symbolizing CSR fundamentals or activities that contribute to society, and with regard to the latter, we think that aiming for a long-term, sustained effort is what society demands and what a corporation ought to do.

Regarding the recovery from the Great East Japan Earthquake, there is less being reported in the media about this than before, but we hear that in reality recovery assistance will get under way in the future. I think that while our contribution may be modest, we want to make sustained efforts.
Smartphones & ZEON

The Materials produced by ZEON are used in products in a wide range of industries. Our materials contribute significantly to enhancing product performance. One example is the smartphone, whose popularity has exploded in recent years. Our products are closely aligned with key smartphone components, including liquid crystal panels, batteries, and camera lenses.

Realizing low-cost optical parts using cyclo-olefin polymers

Cyclo-olefin polymers (COP) are resins with excellent transparency. ZEON’s COP boasts superior transparency, heat resistance, precision molding capabilities, chemical resistance, and insulation capabilities. They also possess features including low water absorption, low birefringence, low dielectric loss tangent, low dielectric constant, and low density.

Two products with different applications — ZEONEX® and ZEONOR®.

Camera lenses
Smartphone camera lenses are required to offer compactness and high performance. In addition, the lenses must be lightweight, and resistant to environmental conditions, such as temperature and water. ZEONEX® provides a high level of performance in these areas. This material is used in many smartphone and mobile device camera lenses.

High frequency & electrical applications
COP is used in high-frequency connectors and antenna substrates with its low dielectric loss tangent and low dielectric constant properties.

Optical films for Liquid Crystal Displays
The ZeonorFilm® from ZEON is a retardation film used as one of the multiple optical films found in Liquid Crystal Displays.

Retardation film is an essential component that enables a clear view from a wider range of angles for LCD TVs and smartphones and is indispensable to LCD image quality.

Production is conducted at the film plant in Toyama Prefecture using ZEON Corporation’s unique technology and the industry’s first integrated production system. This achieves reliable quality and cost. Furthermore, the plant and products are environmentally friendly, as solvents and the like are not used.
ZEON materials for lithium-ion batteries

ZEON polymer technologies contribute to high performance of lithium-ion batteries. By controlling dispersibility at the molecular level, improving electrochemical stability, and strong binding properties, lithium-ion battery manufacturers can produce safe, high-capacity, long-life batteries that have a high output, and that are low cost.

**Sealing Agent for Gaskets**

A gasket is a seal that fills gaps and serves as a lid for the battery. Compared with conventional regular materials, our gaskets offer unrivaled temperature resistance and are also highly resistant to the battery’s internal chemical substances.

**Binders**

Binders for batteries act as an adhesive to “bind” the active anode and cathode particles, both of which are particulate matter.

ZEON’s functional binder contributes in realizing high performance through allowing smooth exchange of lithium-ion and electrons.

Moreover, the separator, which divides anode and cathode materials, is coated with a binder material to enhance the functions of a battery.

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**ZEON developed a revolutionary diagonally stretched optical film manufacturing method**

A significant advantage of ZEON’s diagonally stretched method, the first commercial application of the technique in the world, is the ability to readily control the alignment of resin molecules. This enables roll-to-roll pasting of retardation film with polarizing plates.

The development of this technology was a part of a New Energy and Industrial Technology Development Organization (NEDO) project. This technology was recognized for its innovativeness and received the 22nd Katashi Aoki Technology Award, a prestigious honor, from the Japan Society of Polymer Processing.
Business Development & CSR in Thailand

The ZEON Group’s Enterprise Blueprint for 2020 is to boost the overseas production ratio to 50% and the company is working towards this goal by strongly promoting global expansion. The group has already extended its plant and sales network in the Americas, Europe, and Asia. Two of the group’s companies, engaged in production in Thailand, have a history which spans more than 10 years. In this section, we introduce our business activities in Thailand and the measures we are implementing to strengthen trust within the local community.

Operating in Thailand for over 10 years

ZEON Chemicals (Thailand) Co., Ltd. (ZCT) and ZEON Advanced Polymix Co., Ltd. (ZAP) are our two group companies that operate in Thailand. ZCT, whose plant has an annual output capacity of 20,000 tons, manufactures QUINTONE® petroleum resins from C5 fraction for sale to customers in Asia and Europe. QUINTONE® demonstrates superior performance in products such as the adhesive for adhesive tapes and traffic paints, which are used for road markings. As such, the product is used widely throughout Asia, where infrastructure development is growing. ZCT was established in 1996 and launched commercial production in April 1998. In June 2013, the company constructed a new plant, comparable in scale to its existing plant, and commenced operations in August of the same year. In July 2008, a laboratory was set up to test traffic paints, one of its major uses. We use the same materials as our customers to provide quicker services.

We also invite sales personnel from countries throughout Asia to attend our training seminar on the proper use of traffic paints. We continue to carry out these measures based on our belief that top-quality products cannot demonstrate superior performance if not used properly.

Meanwhile, prior to the establishment of ZCT, we launched ZAP in 1995, when Japanese automakers were accelerating expansion in Thailand. ZAP operates the carbon master batch (CMB) business. CMB is made from mixing chemical additives, mainly with synthetic rubber, for use in automobile components. It is crucial that the various materials used in this product are uniformly dispersed for the rubber to perform in line with standards. ZEON’s mixing technologies are highly praised throughout the industry. In 2011, we renovated our mixing line to respond to growing global automobile production.

ZEON Chemicals (Thailand) Co., Ltd. (ZCT)
Head office: Rayong Prov. Thailand
Establishment: May 9, 1996
Capital: THB 350,000,000
Ownership ratio: ZEON Corp. 73.9%
Business: Manufacturing and sales of QUINTONE®, a petroleum resin

ZEON Advanced Polymix Co., Ltd. (ZAP)
Head office: Rayong Prov. Thailand
Office: Bangkok, Thailand
Establishment: April 26, 1995
Capital: THB 100,000,000
Ownership ratio: ZEON Corp. 40%
Business: Manufacturing and sales of rubber compounds (CMB)
Contributing to the local community in the spirit of *tham bun*

In devoutly Buddhist Thailand, *tham bun* is a common moral belief which translates as “act of virtue.” ZAP and ZCT actively provide employee benefit programs and make donations to the local community. Local residents are invited to receive health checkups, which are held at the company, along with employees. In addition, on various occasions, the two companies donate and contribute to the welfare of their employees, local temples, schools, hospitals, disaster areas, and local governments. Recently, the work carried out by these two companies over many years was recognized. In 2011, both ZAP and ZCT became certified companies of the CSR Rayong Project, which is hosted by Rayong Province.

![CSR Rayong Project certification ceremony. ZAP and ZCT were both recognized for carrying out CSR activities. ZCT was also certified in 2012.](image)

![The CSR policy and pictures of activities are displayed in the hallway as a constant reminder of the CSR activities being implemented.](image)

![ZAP holds a Safety Week every year. The event is to promote self-awareness of safety issues within the company. Companies in the industrial park, local residents, and local governments are invited to participate.](image)

On National Children’s Day, which is held on the second Saturday of January each year, ZCT and ZAP donate stationery to local elementary schools. Occasionally, donations are also made to other organizations.

![ZCT and ZAP employees actively participate in community clean-up work and tree planting. Clean-up activities are held nearly every month.](image)

Awareness of environmental issues is also increasing in Thailand. In particular, regulations are becoming stricter for new businesses at the petroleum industrial complex in the Mapta Phut district where ZCT is located. ZCT and ZAP focus on environmental issues when carrying out operations. ZCT is especially careful in its environmental management, as it operates a chemical plant. From 2000, we have been publishing an environmental report. We plan to continue to focus on CSR activities to become a company that is appreciated by the local community and residents.

![Yutaka Isozaki
President of ZEON Advanced Polymix Co., Ltd. and ZEON Chemicals (Thailand) Co., Ltd.](image)

**Business activities and social contribution in Thailand**

Awareness of environmental issues is also increasing in Thailand. In particular, regulations are becoming stricter for new businesses at the petroleum industrial complex in the Mapta Phut district where ZCT is located. ZCT and ZAP focus on environmental issues when carrying out operations. ZCT is especially careful in its environmental management, as it operates a chemical plant. From 2000, we have been publishing an environmental report. We plan to continue to focus on CSR activities to become a company that is appreciated by the local community and residents.

Yutaka Isozaki
President of ZEON Advanced Polymix Co., Ltd. and ZEON Chemicals (Thailand) Co., Ltd.
CSR Core Projects

A CSR Core Project is a business or social contribution activity that lays the foundation for future CSR activities in ZEON. We asked employees throughout the ZEON Group to draw up proposals, and selected projects, such as the chemistry classroom and disaster reconstruction assistance volunteer program, from the proposals we received, and are currently implementing them. In this section, we hear from employees taking part in these activities and introduce some of our projects.

We held a roundtable discussion with the members from the CSR Core Projects on May 23, 2013. (Positions as of the time of the discussion)

Takegami: ZEON CSR Policy is to become a corporate member of society and to cause no distress to it. We basically aim to attain this goal through our core business but we also plan to make social contributions in other ways. These are our CSR Core Projects. Today, we have gathered to hear impressions and opinions from participants in these activities and to discuss how this feedback should be reflected in future operations. Last year, we asked employees from the entire group to submit their ideas. We received many proposals, most pertaining to assistance for reconstruction in the areas devastated by the Great East Japan Earthquake and a chemistry classroom for children.

Takegami: Some of our plants have been conducting their own version of the chemistry classroom for some time now. We collected this knowledge and created an official program.

Kawanaka: The Kawasaki Plant has been holding a chemistry classroom for the past five years or so. Many children, and adults, participate in our plant tours. However, as chemical plants handle hazardous materials, we are not able to show them the entire manufacturing process. We started the chemistry classroom to demonstrate simple experiments that give people an idea of what is going on inside our plant. These are very straightforward demonstrations, but everyone is excited when they see the liquid solution turn into rubber, which makes it worthwhile.

Chemistry classroom fosters curiosity in children

We do various experiments, including creating rubber balls to learn why they bounce differently, fragrances using synthetic aroma chemicals, and a mysterious light experiment using ZEON optical films. Until now, each plant held classrooms independently. From 2013, we also plan to visit events to hold demonstrations.

Great East Japan Earthquake Disaster Aid

Heisei no Mori tree planting group Otsuchi-cho, Kamihei-gun, Iwate
The Yokohama Rubber Co., Ltd., which has capital ties with ZEON, founded a tree planting group in 2012 in Otsuchi-cho, Iwate Prefecture. ZEON became a co-sponsor in 2013. In the second tree planting on May 18, 2013, Chairman Naozumi Furukawa and 13 employees participated. A total of 553 people took part that day, including 160 local residents from Otsuchi-cho, planting about 5,000 trees.

We are carrying out various other projects. For details, please refer to reports posted on our website. Home > CSR > ZEON’s CSR > Response to Great East Japan Earthquake and Tsunami Disaster http://www.zeon.co.jp/csr_e/introduction/earthquake.html
For example, we make two rubber balls, one that bounces and one that does not. Everyone has a keen interest in the ball that doesn’t bounce. When we explain why the ball doesn’t bounce it arouses interest in the everyday rubber products that are around us. We hope our chemistry classroom has a lasting impression on the children who participate. Takegami: It is about nurturing curiosity. An extension of this curiosity is the emergence of the desire to practice science. In recent years, it is often said that children are abandoning science studies. We hope that through the chemistry classroom, they will develop an interest, not necessarily in chemistry, but in science. We hope to eventually raise the talent who will be responsible for Japan’s future.

### Crucial for quake-aid volunteer efforts to be hands-on and ongoing

Takegami: We mainly send volunteers to help out with reconstruction. In general, volunteers participate in a specialized tour and ZEON covers the cost. Matsuno: I participated in the removal of sludge and rubble at Minami Sanriku Town. Regular volunteers, who pay their own way, demonstrated a high level of awareness. Seeing them in action triggers something inside you. Nasu: I helped out at a wakame seaweed farm in Kesennuma City. Sometimes what local residents had to say was tough to hear. But everyone always had a smile on their face. In the end, when I went home, I felt like the people in Kesennuma were the ones that actually cheered me up. Yamada: I participated in the same tree planting group in Otsuchi-cho as the chairman. There was time to look at the town. We saw the aftermath of the tsunami. There are no words to describe what I felt.

Maruyama: I helped out with the organic cotton project in Iwaki City. Local farmers are struggling, hurt by rumors, and it seems that many farmers have to give up their livelihoods. I was glad I had participated because I was able to talk directly with the farmers and understand their current situation. Takegami: Did you talk about your experiences during the volunteer tour to your family or to work colleagues? Matsuno: I talked about volunteering a lot when I went out for drinks with colleagues. A number of people volunteered after hearing about my experiences. Yamada: Yonezawa City is close to the disaster area so we visited this district for a day. The volunteer vacation program should encourage people to take action. However, I believe it is also important to make arrangements at the workplace, in terms of employers that send volunteers, and to ensure that volunteers feel comfortable about going. Maruyama: There are definitely several obstacles hindering people from making arrangements themselves to be a volunteer. I think this tour is a good opportunity. Takegami: The volunteer tour gives those employees hesitant about going a slight push. It is not mandatory but we hope employees will take advantage of the program. Since the company covers expenses, employees can do it as a part of a trip to the area. ZEON plants run on a shift schedule so not many employees can go at one time. However to keep the program going, it will actually be good to send a few people at a time. What is important is that we can continue to provide assistance.

### Promoting CSR Core Projects by having employees contribute their knowhow

Kawanaka: In everyday operations, employees may participate in CSR Core Projects in some fashion, such as the eco-cap activities without realizing it. I think it is necessary to boost the recognition of the CSR Core Projects. Takegami: We need to repeatedly publicize these activities. It is important that everyone contribute their knowhow to connect with the community and carry out activities that are of service to society. We hope all of our employees will cooperate in promoting CSR Core Projects, with the same amount of curiosity that children show during our chemistry classrooms.

### Restoration volunteer tours

We officially asked employees to volunteer to participate in general reconstruction volunteer tours. We covered the paper-work and costs for employees that participated. So far, the tour has run 18 times and a total of 83 employees participated. (as of July 31, 2013)

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We helped remove sludge and rubble left in the residential area by the tsunami. Ultimately, heavy machinery was brought in to remove the rubble. Manual procedures are required to survey property boundaries and to retrieve objects left by the deceased.

We assisted in an organic cotton project, which aims to revitalize the local economy by having farmers in Iwaki organically cultivate cotton. We participate year-round, helping to plow the fields, plant seeds, and harvest.

We helped do harvesting work at a wakame seaweed farm, listened to what local residents had to say while harvesting, sorting, blanching, and bundling the seaweed.

### Establishment of volunteer support system

From January 2013, ZEON started a volunteer vacation program to make it easier for employees to do volunteer work. Seven people took advantage of this system as of June 2013.

### Reconstruction assistance via food

We are participating in the Ministry of Agriculture, Forestry and Fisheries program to prioritize use of food products from the disaster area. We are supporting the reconstruction of local industries by using such ingredients at our employee cafeterias.
Management Structure

To conduct efficient, sound corporate management, we have created a management system capable of making clear, quick decisions on assignment of roles. Furthermore, through the CSR Conference and seven committees we manage the diverse risks involved in business activities.

Corporate Governance

ZEON aims to increase profits and achieve ongoing corporate value enhancement while respecting and balancing the various interests of its shareholders and other diverse stakeholders. To this end, we are making ongoing efforts to establish a system that enables efficient and sound corporate management through corporate governance.

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

Corporate Governance System

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. The role of the Board of Directors besides statutory duties is to make important decisions about basic management policy and strategy and other aspects of business execution. An outside director was appointed to the Board of Directors at the June 2011 shareholders’ meeting.

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

Board of Corporate Auditors
The Board of Corporate Auditors comprises five members, including three outside corporate auditors. The board meets once every four months, in principle, to report, discuss and resolve important matters related to auditing. In accordance with auditing guidelines established by the Board of Corporate Auditors, each corporate auditor audits directors’ execution of duties through various means, such as attendance at Board of Directors meetings and monitoring of business operations, including subsidiaries’ operations.
Risk Management

The Risk Management Committee and the Compliance Committee, along with the Compliance Committee’s subcommittees—the Antitrust Law Regulatory Subcommittee, the Export Security Control Subcommittee, the Corporate Governance Subcommittee, and the Information Security Subcommittee are advancing ZEON’s risk management and compliance efforts.

The activities of each committee and subcommittee in fiscal 2012

Risk Management Committee
In fiscal 2013, the Risk Management Committee continued handling incidents as they occurred and took steps to prevent their recurrence. It also enhanced risk and crisis-related control measures, for example by promoting the introduction and reinforcement of business continuity plans (BCP) by each operating division, performing a revision of our Earthquake Disaster Response Manual, and implementing continued training based on this manual.

Compliance Committee
In fiscal 2012, the Compliance Committee improved the contract management system, and educated group companies in Japan on Japan’s Subcontract Act, Worker Dispatch Act, and Construction Business Act. The committee strived to improve compliance awareness among all directors and employees of ZEON by conducting its annual workshops on legal compliance at each office, gathering suggestions for a CSR and compliance motto, and performing a legal compliance inspection simultaneously at all workplaces, among other activities.

• Antitrust Law Regulatory Subcommittee
In fiscal 2012, the subcommittee analyzed the reasons for and timing of price increases, conformity with rising market prices, and other factors prior to revising prices for ZEON products within each operating division. In addition, the subcommittee reviewed the status of participation in industry bodies to thoroughly implement rules.

• Export Security Control Subcommittee
In fiscal 2012, the subcommittee held seminars at the Head Office (and subsidiaries), laboratories, and plants with general information on export security control. In addition to the above, a seminar was held mainly for employees in charge of affairs at the Head Office (and subsidiaries) and at laboratories focusing on issues related to evaluation of chemicals based on Japan’s Export Trade Control Order.

• Corporate Governance Subcommittee
The Corporate Governance Subcommittee strived to improve the efficiency of internal control evaluations and focused on standardizing operations. Nothing particularly noteworthy took place in fiscal 2012.

• Information Security Subcommittee
In fiscal 2012, the subcommittee continued to implement training through e-learning courses*. It also completed the establishment of an information management system, held training for managers and employees responsible for information security in each department, and spread awareness regarding these employees’ roles. The subcommittee also worked to establish systems and mechanisms to promote a level of information security abroad that meets ZEON’s standards.

* E-learning courses saw a participation rate of 99.6%

Internal Reporting System

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

There have been six incidents of internal reporting over the last five years (fiscal 2008-2012). 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.

For details: http://www.zeon.co.jp/csr_e/management/risk_compliance.html
Home > CSR > Management > Risk Management and Compliance
CSR Management

Based on our CSR Policy, which is more concretely spelled out in our CSR Code of Conduct, CSR activities are promoted under the guidance of each committee. We are striving to achieve our Enterprise Blueprint for 2020 and these efforts are summarized in our CSR Implementation Plan.

CSR Promotion Structure

The CSR Policy and a more specific CSR Code of Conduct was established in April 2010. Then in January 2011, we revamped our CSR organizational structure to help advance CSR activity within ZEON. Chaired by the President, the CSR Conference would be the chief body for decision-making on matters relating to CSR. Seven committees, which would report to the CSR Conference, were installed to advance CSR activities in specific areas. The CSR Conference is held six times a year to discuss and finalize activities, measures and annual activity plans to be advanced by each of the seven committees, and to give necessary instructions based on progress reports.

**CSR Basic Policy Committee**
The CSR Basic Policy Committee was established in January 2011 to stimulate CSR activities of ZEON. It also provides guidance and support for CSR activities of CSR Promotional Committees at six ZEON offices and nine group companies in Japan. Meetings are held as required. The committee convened 11 times during fiscal 2012.

In a continuation of efforts started in fiscal 2011, in fiscal 2012 the committee completed the CSR Matrix outlining the CSR activities that ZEON should tackle, organized by category and stakeholder, striving to visualize the CSR activities of ZEON as a whole. The committee also started a variety of social contribution projects, including support for recovery efforts after the Great East Japan Earthquake.

**Risk Management Committee**
Established to manage risks for the purpose of maintaining business continuity. The committee is responsible for systematically preventing potential risks and gaining control over emerging risks, as well as for taking controlled action to minimize losses or damage in the event a crisis does occur. The committee convened 14 times during fiscal 2012.

**Compliance Committee**
The Compliance Committee was established to prevent violations of laws and regulations. It is responsible for creating compliance education and training programs to be implemented by operating divisions in charge of business activities. The committee is convened as required, and the objective of its programs is to make sure every director and employee of ZEON acts in full accordance with the values and ethics society expects, and thereby achieves fair and proper management that allow ZEON to develop business in harmony with the local community and society at large. The Compliance Committee has four subcommittees. The committee was convened twice during fiscal 2012.

**Public Relations Committee**
Established to enhance the profile and image of ZEON through accurate communication of its philosophies, stances and activities to stakeholder groups and society as a whole, and to ensure timely and appropriate disclosure of information by ZEON. Meetings are held as required.

**Quality Assurance Committee**
Formulates plans for management improvement activities and training related to quality assurance within ZEON and monitors quality assurance implementation. Meetings are held as required.

**PL Committee**
Formulates plans for prevention activities and training related to the product liability of ZEON and monitors response to emergencies. Meetings are held as required.

**Environmental and Safety Affairs Committee**
Plans and proposes specific environmental and safety measures for ZEON and monitors progress in addressing environmental and safety issues. Meetings are in principle held four times per year.

We have prescribed ZEON’s Enterprise Blueprint for 2020 for each category and specific initiatives to achieve these goals.

<table>
<thead>
<tr>
<th>Category</th>
<th>Enterprise Blueprint for 2020</th>
<th>Specific Efforts / Details are on this report as indicated in brackets</th>
<th>Responsible Committee/Subcommittee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate governance</td>
<td>• Mid-Term Management Plan goals have been achieved, and dividend distribution is stable and continuous.</td>
<td>• Implement stable distribution of dividends (P40)</td>
<td>Board of Directors</td>
</tr>
<tr>
<td></td>
<td>• A world-class risk management system has been built, is being operated throughout the ZEON Group, and has gained the trust of society.</td>
<td>• Implement risk management activities in accordance with ISO 31000 (P26, P27) 1) Construct mechanisms that visualize risk management PDCA in each operating division 2) Revise the Earthquake Disaster Response Manual and hold regular drills</td>
<td>Risk Management Committee</td>
</tr>
<tr>
<td></td>
<td>• A business continuity management system is being deployed throughout the Group (Various types of business continuity plans (BCPs) have been formulated and are revised regularly through training, etc.)</td>
<td>• Formulate business continuity plans (BCPs) (P26) Formulate BCPs for all ZEON Corporation operating divisions</td>
<td>Risk Management Committee</td>
</tr>
<tr>
<td></td>
<td>• The internal reporting system (The Compliance Helpline) is being operated appropriately.</td>
<td>• Operate, promote, and educate employees about the internal reporting system (P26)</td>
<td>Risk Management Committee</td>
</tr>
<tr>
<td>Compliance</td>
<td>• Compliance awareness is widespread and allows ZEON to respond to environmental changes.</td>
<td>• Revise company rules regularly (in accordance with the revision of laws and regulations) (P36)</td>
<td>Compliance Committee</td>
</tr>
<tr>
<td></td>
<td>• A global compliance system has been established and operates autonomously.</td>
<td>• Consolidate and establish clear and concrete company rules among overseas group companies</td>
<td>Compliance Committee</td>
</tr>
<tr>
<td>Information</td>
<td>• Information is disclosed quickly and appropriately (including negative information regarding business conditions, CSR, risks, etc.)</td>
<td>• Hold financial results briefings and publish CSR reports (P40) Disseminate information via the company website (P40)</td>
<td>Public Relations Committee</td>
</tr>
<tr>
<td>Environment, safety, and quality</td>
<td>• All worksites continue to have zero incidents and zero accidents, and are trusted by society.</td>
<td>• Visible on-site job through dialogue, further reduce risk, and achieve zero incidents and zero accidents (P35) 1) Identify the sources of danger through dialogue and visualization of worksites to steadily reduce risk 2) Create systems to steadily improve the level of environmental safety management at overseas worksites 3) Predict the risk of major earthquakes and improve disaster response capabilities through drills and improvements of systems and facilities</td>
<td>Environmental &amp; Safety Affairs Committee</td>
</tr>
<tr>
<td></td>
<td>• All worksites have reduced their environmental impact which has gained social appraisal.</td>
<td>• Promote activities aimed at reducing environmental impact, and achieve zero emissions and CO₂ reduction targets (P34) 1) Work to improve energy consumption and cut back on CO₂ to steadily reduce CO₂ emissions 2) Move steadily forward with the reduction of waste and air-polluting toxic substances</td>
<td>Environmental &amp; Safety Affairs Committee</td>
</tr>
<tr>
<td></td>
<td>• Levels of both quality and cost are the best in the world.</td>
<td>• Implement a quality management system based on ISO 9001 (P36)</td>
<td>Quality Assurance Committee, PL Committee</td>
</tr>
<tr>
<td></td>
<td>• Procurement is being promoted that includes considerations to reduce environmental impact based on CSR procurement policy.</td>
<td>• Formulate CSR Procurement Guidelines and implement surveys among suppliers (P38)</td>
<td>CSR Basic Policy Committee</td>
</tr>
<tr>
<td>Human rights and labor practices</td>
<td>• ZEON has promoted work-life balance, strives for a balance between work and care for children or elderly, and has received the Unique Work (award given to companies that support child rearing)</td>
<td>• Appropriately operate a system to promote child-rearing (P38)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>• The workplace has been revitalized by the promotion of diversity and the fair and equitable treatment of personnel.</td>
<td>• Implement a program to help those who take child-rearing or family-care leave to reintegrate in their workplaces (P36) Implement a systemic and a discretionary working system for management-related work (P38)</td>
<td>—</td>
</tr>
<tr>
<td>Social contribution</td>
<td>• An organization has been established to promote volunteer activities for employees including retirees that allows employees to actively volunteer in various ways.</td>
<td>• Upgrade and enhance CSR promotion system (P23, P24) 1) Implement CSR leader training 2) Renovate system for CSR information dissemination Introduce and promote participation in volunteer activities (P23, P24)</td>
<td>CSR Basic Policy Committee</td>
</tr>
<tr>
<td></td>
<td>• There is understanding and appraisal for ZEON’s social contributions (ZEON activity participates in and supports environmental protection and social welfare programs being promoted in each country and region).</td>
<td>• Implement CSR activities (P23, P39) 1) Materialize and implement CSR activities being promoted by the entire ZEON Group 2) Materialize and implement CSR activities being promoted by all worksites 3) Implement CSR activities unique to individual worksites</td>
<td>CSR Basic Policy Committee</td>
</tr>
</tbody>
</table>
Research and Development (R&D)

Our basic philosophy for R&D is to contribute to society through the ongoing development, even in niche markets which are in ZEON’s areas of expertise. We utilize creative and innovative technologies, and develop products and businesses that do not imitate and cannot be imitated. While continuing to leverage our strengths, we are conducting research and technology development in anticipation of changes in society and technological reforms too.

R&D System

The ZEON Group primarily conducts R&D at the laboratories within the R&D Center located adjacent to the Kawasaki Plant. The Business R&D Division conducts research and development in line with business strategy, focusing on developing new products in ZEON’s key business areas such as synthetic rubber, latex and C5 chemicals. They are also committed to high added-value areas where market growth and evolution are expected, such as for energy and electronic-related products and specialty plastics. Within the corporate R&D divisions, the New Materials Development Laboratory actively searches for new functional chemicals based upon our foundational technology. The Center also comprises the Production Technology Laboratory, which develops new production technologies and provides such support for plants, and the Foundation Technology Laboratory, which is responsible for analysis of materials.

Within our Takaoka office is located the Precision Optics Laboratory, which investigates optical film for LCD televisions and next-generation displays, along with EL lighting materials which can contribute to energy conservation. This is also the location of our Medical Laboratory, which conducts research into medical equipment such as catheters used in diagnosis and treatment for blood vessels, the stomach, intestines and gall bladder, etc.

Our Manufactured Product Development Laboratory, which is in charge of research for ZEON Kasei, investigates vehicle interiors and heat radiation materials.

In the U.S., we engage in the development of synthetic rubber to meet customer needs.

R&D Center
The center consists of buildings 1 through 10. We are constantly rejuvenating by frequently replacing our testing and analysis equipment. We tackle numerous research topics using the latest analysis equipment, such as nuclear magnetic resonance (NMR) spectroscopy, which can analyze solid samples, and a scanning electron microscope (SEM).
R&D Strategy

A feature of the ZEON Group’s R&D is that R&D strategies go hand in hand with management strategies.

From the initial stage of choosing an R&D topic, we place heavy emphasis on competitive advantage in the market, for example, pinpointing concepts that are advantageous for our businesses, developing technologies, and obtaining patents to bar entry by our rivals.

Also, taking into account future changes in the social paradigm, we are pouring effort into research themes that will become a proprietary strength and core competence which can be accessed in the long term. In particular, environmental and energy are important areas in research.

To ensure that research strategies coincide with management strategies, the top management visits the R&D Center once a month to directly speak with researchers on the progress being made in R&D as a research hearing. Based on the information obtained, management determines whether R&D is moving in the same direction as management strategies and assesses the marketability of the research being carried out.

ZEON aims to steadily invest in R&D, with a budget of more than ¥12.0 billion. We are focusing on long-term research topics and on areas that can be commercialized in the short term.

Our laboratories are cooperating with our plants to tackle key operational issues, mainly how to maintain stable operations safely and securely at plants around the world, which is vital to our globalization. To ensure that production can be performed by workers at any skill level, we consider it important to visualize the production reforms being carried out at plants in Japan from the perspective of production technology development, leading to the standardization and stabilization of operations, and the creation of operating manuals.

Furthermore, we plan to develop a wide range of applications and accelerate development through collaborating with others in research in various formats, such as cross-industry, industry-academia, and industry-academia-government.

Intellectual Property Strategy

In handling intellectual property, we are careful to ensure it aligns with our management strategies. We select themes that focus on positioning of the product once released to the market considering our strengths, how to improve competitively, and entry barrier and we put the idea of patent first and actively strive to hold group of patents.

To understand our strengths and improve our competitive edge, also create technology platforms and focus on development based on those platforms. We are able to build a solid competitive advantage by combining or applying separate superior technologies, through concept patents, the development of manufacturing processes and applications, and with our knowhow.

Striving for vigorous R&D

The goal of the R&D Center is to take the “sparks” of researchers, turn them into business seeds, and nurture them into technologies that are trusted globally.

In particular, our younger researchers present their research at the research hearing held once a month. Funds and people are allocated to promising topics. After the president finishes his rounds, an informal gathering is held where researchers can speak directly with the president. This boosts their motivation.

Evaluations are not only based on the results for new development but also for making gradual improvements or for tackling challenging themes.
First in Japan to mass produce a single-walled carbon nanotube (Industry-government joint research)

Single-walled carbon nanotubes (CNT) are considered an ideal material, mainly as they permit super conductivity at high temperatures. However, as mass production was difficult, nanotubes came at a high price, and for a long time there was no progress in the development of applications. ZEON, in cooperation with the National Institute of Advanced Industrial Science and Technology, through a NEDO project, jointly developed facilities that could produce single-walled CNT with a super-growth method. After developing equipment that can grow single-walled CNT at a rate 1,000 times faster than in the past, in 2012, the company began providing mass-produced samples.

Moreover, ZEON, along with NEC Corporation, Toray Industries, Inc., TEIJIN Ltd., Sumitomo Precision Products Co., Ltd., and AIST, formed the Technology Research Association for Single Wall Carbon Nanotubes (TASC), to develop applications for single-walled CNT, including new materials and devices.

The realization of CNT in new materials is moving closer, and research is progressing in materials such as rubber, copper and aluminum blended with single-walled CNT. For example, when CNTs are blended in rubber, it displays extremely high levels of electrical and thermal conductivity, mechanical durability and barrier properties against electromagnetic waves.

Joint development of unique materials for next generation mainframe computers (Industry-industry joint research)

Mainframe computers serve a critical function in banking, scientific research, and cloud computing. In recent years, demand for applications of big data has been growing stronger, placing greater demand on mainframe processing capacity and reduced energy consumption are being sought. At ZEON, we think that achieving these goals will require not only manufacturing process, but also the creation of innovative materials.

Accordingly, to develop new printed circuit board materials for mainframe computers, ZEON is collaborating with International Business Machines Corporation (hereafter called IBM). Technicians have been dispatched to IBM’s Thomas J. Watson Research Center. By obtaining more detailed technological feedback, we expect to shorten our development time. In the future, we will continue promoting development of new materials optimal for mainframe and server computers that have excellent processability and provide far less transmission loss and lower power consumption than traditionally utilized materials.

Offset balloon catheter pursuing creativity in medical devices

ZEON’s entry into the medical industry began in the 1970s when it started manufacturing catheters. We proceeded to develop products, such as the supplementary artificial heart and today we specialize in the cardiovascular, nutritional and gastrointestinal fields.

The offset balloon catheter is used during gallstone-removal surgery. In general, the catheter is in the middle of the balloon but with the offset balloon, there is little change in the balloon’s shape, allowing for the gallstones to be pushed into the small intestine. The materials used to manufacture the catheter and balloon were developed by ZEON. They are therefore very safe and durable.
**Cyclo-olefin polymers (COP), engineering plastics with diverse dynamic properties**

COP, which is sold under the names ZEONEX® and ZEONOR®, is known as materials owing to its excellent transparency, refraction, low absorption and low density. Owing to these properties, this material is used in lenses for most mobile phones and compact cameras. As an optical film, the material is used in LC displays, including LC televisions and smartphones.

Elsewhere, owing to the very low level of impurities and its superior chemical resistance, it is employed in containers for chemicals used in medicine and for semiconductors. It is also used as an electrical insulating material, because of features including its low-k dielectric and low dielectric tangent.

**Zetpol®, a novel hydrogenated nitrile rubber, made using a new hydrogenation method**

Zetpol® is a synthetic rubber that is widely used in the rubber components of a car engine. It has won praise for qualities such as temperature resistance, oil resistance, and durability. This quality performance is obtained by main chain double bond of a nitrile-butadiene rubber (NBR), which is the raw material. Traditional methods produced a nitrile-butadiene rubber, used as a base, which is later dissolved and hydrogenated at each plant. However, using the new method enables simultaneous hydrogenation processes. The new Zetpol® boasts improved heat resistance and fuel resistance (resistance to fuels such as bioethanol) over the former version of Zetpol® and thereby contributes to improved performance of eco-cars, which are growing in popularity worldwide.

Furthermore, since the new method produces hydrogenated rubber by latex condition, we are realizing the potential for new applications for Zetpol® which previously were not possible.

The new method is an innovative manufacturing process that has improved performance and expanded applications for Zetpol®.
Safety, Quality, and the Environment

The major premise of corporate activities is to give priority to the environment and safety over all other considerations. Throughout the entire product life cycle, from product development and manufacturing activities, to the time they are used and ultimately the time they are disposed of, both in our business activities and through our products, we are working to ensure safety and a reduced environmental impact and to assure quality.

Responsible Care* Policy

ZEON has been a member of the Japan Responsible Care Council since its inception in 1995. In 1998 we formulated our own 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.

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 ISO14001, and an Occupational Health and Safety Management System.

*Responsible Care
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 cycles of such substances from development and manufacture, through distribution and use, and ending in final consumption or disposal and based on the principles of independent decision-making and personal responsibility. These businesses publicly commit to Responsible Care in their business policies, execute HSE measures, and strive to improve their performance.

Environment

Environmental Philosophy

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

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

Environmental and Safety Management

The head of the Environmental and Safety Affairs Department draws up plans for the Annual Environment and Safety Policy based on the President’s Annual Policy, developed by the president, and the Safety Management Improvement Master Plan. The Annual Environment and Safety Policy is finalized by the president following a review by the CSR Conference. Based on this, the worksite managers develop the Annual Worksite Manager’s Policy, Annual Worksite Safety Management Improvement Master Plan, and the Annual Worksite Environment and Safety Activities Plan.

For details
http://www.zeon.co.jp/csr_e/environment/index.html
Home > CSR > Environment
Auditing

Since fiscal 2010, worksites have been implementing Responsible Care audits, which are divided into general and specialized audits.

During the general audit, an audit team, led by the head of the Environmental and Safety Affairs Department, visits each worksite once a year. Emphasis is placed on dialogue with worksite management.

Specialized audits, on the other hand, are conducted by a team led by the head of the Environmental and Safety Affairs Department, which audits the implementation status of Responsible Care activities from an expert’s point of view. When an audit identifies a noncompliance, improvement progress is tracked using an improvement plan and implementation report.

Reduction of Greenhouse Gas Emissions and Energy Conservation

CO₂ emissions in fiscal 2012 were approximately 490,000 tons, or 77% of emissions in fiscal 1990. The figures for emissions met target values for fiscal 2020; Rational Use of Energy to 80% of emissions in fiscal 1990. We plan to improve unit CO₂ emissions by an average of 1% per year going forward, and will also explore the feasibility of initiatives such as switching boiler fuels at plants to further reduce CO₂ emissions.

In fiscal 2012, we consumed an amount of energy equivalent to burning approximately 189,000 kiloliters of crude oil, or 68% of the amount of energy consumed in fiscal 1990. We plan to improve unit energy consumption by an average of 1% per year going forward.

Chemical Substances Management

PRTR initiatives

The entire ZEON Corporation is working to reduce the release and transfer of substances subject to Japan’s PRTR Law. Total emissions and transfer in fiscal 2012 were around 275 tons.

Reduction of Hazardous Chemical Substance Atmospheric Emissions

Butadiene and acrylonitrile are among the 23 types of substances requiring priority action stipulated by Japan’s Air Pollution Control Law and thus the focus of our active efforts to reduce atmospheric emissions of hazardous chemical substances.
Safety

Safety Philosophy

A safe and consistent work environment is the foundation of all production activities. ZEON Corporation formulated its safety philosophy in 1997 to direct its safety efforts.

<table>
<thead>
<tr>
<th>Safety Philosophy (Established March 1997)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Safety is the foundation of all business activities and the greatest priority</td>
</tr>
<tr>
<td>2. Our basic belief regarding safety is that we can prevent all accidents</td>
</tr>
<tr>
<td>3. Safety will be achieved by performing the 5Ss* and when everyone takes responsibility for their own actions</td>
</tr>
</tbody>
</table>

*5S
Seiri (neatness), Seiton (orderliness), Seisou (cleanliness), Seiketsu (hygiene), and Shitsuke (discipline)

Occupational Safety

ZEON Corporation places an emphasis on communication between worksite managers and workers in its effort to enhance worksite capacities and build safe and stable production systems. We put considerable effort into 5S safety audits1, risk assessments2, and identifying near-miss incidents3, as well as the provision of hands-on training.

Systematic Safety Training

At ZEON Corporation, the head office organizes safety training programs for all organizations in the company, while each worksite provides training tailored to its own operations. We have also established the Monozukuri Training Center, which is a company-wide operator training facility, and the Safety Workshop, which offers training in various safety rules.

Safety and Accident Prevention

We are implementing various measures in which all employees takes responsibility for their own actions to ensure zero-accidents and zero-incidents. In addition to promoting open dialogue with worksites through regular plant visits by management, the Annual Worksite Safety Management Improvement Master Plan is renewed annually, and we are fortifying measures across the group under the leadership of the president. Furthermore, to improve the safety of management of high pressure gas at our plants, managers at each of our worksites have acquired Safety Inspection Certification1. In addition, managers at our Kawasaki, Mizushima, and Tokuyama plants have acquired Accredited Completion Inspection Certification2.

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

*2 Completion Inspection Certification
Certification granted by Japan’s Minister of Economy, Trade and Industry in accordance with 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 certain modifications comply with technical standards.

Lost-Time Accident Rates*

ZEON Corporation

* An indicator of the frequency of workplace accidents, calculated using the following formula:
Frequency of lost-time accidents = Number of workers who experienced a lost-time accident / Total actual working time × 1,000,000 hours

Education on examples of accidents
(Kawasaki Plant)

The authorized acquisition condition

<table>
<thead>
<tr>
<th>Plant</th>
<th>Safety Inspection</th>
<th>Completion Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takasago Plant</td>
<td>Obtained in 2000 (renewed in 2010)</td>
<td>—</td>
</tr>
<tr>
<td>Tokuyama Plant</td>
<td>Obtained in 2007 (renewed in 2012)</td>
<td>Obtained in 2012</td>
</tr>
<tr>
<td>Mizushima Plant</td>
<td>Obtained in 2006 (renewed in 2011)</td>
<td>Obtained in 2006 (renewed in 2011)</td>
</tr>
</tbody>
</table>

For details
Quality Assurance

To consistently manufacture products that reflect the needs and wants of customers and to ensure product quality, ZEON is advancing integrated quality assurance activities company-wide, across manufacturing, sales and engineering functions, by strengthening cooperation among plants, business divisions and research units (R&D Center). For example, when a complaint is received or a problem occurs within a line, business divisions, research units, and the Quality Assurance Department get actively involved, joining manufacturing departments (plants) in identifying the root cause, taking action, and confirming effectiveness, as well as standardizing processes to prevent a recurrence.

Through these efforts, ZEON is working to improve the consistency of quality and processes so that we are able to deliver to the customer products they will be satisfied with.

Quality Assurance Mechanisms

To ensure a consistent supply of high-quality products to our customers, we have put in place various quality assurance mechanisms based on the ISO 9001 international standard for quality management systems.

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy implementation</td>
<td>Identifying what has to be done within each organizational layer based on the President’s policy, and then carrying it out.</td>
</tr>
<tr>
<td>Management planning and reviews</td>
<td>Ensuring continuous improvement in quality management by organizations with heads of units (plant managers and business division heads) evaluating the progress of tasks for each organizational layer and indicating strategies for the next round of improvements.</td>
</tr>
<tr>
<td>Product design and development reviews</td>
<td>Reviewing whether each stage of product design and development is being effectively performed, and then making improvements as required.</td>
</tr>
<tr>
<td>Product safety evaluations</td>
<td>Performing a multifaceted product safety review in which product safety is evaluated at all stages, from initial research through to product sale and ultimate disposal.</td>
</tr>
<tr>
<td>Change management</td>
<td>Preventing problems before they occur by establishing rules for making process changes associated with product improvements and so on.</td>
</tr>
<tr>
<td>Handling abnormalities</td>
<td>Eliminating quality problems by pinpointing the causes of process abnormalities at production facilities, removing the causes, and ensuring that the problems never recur.</td>
</tr>
<tr>
<td>Handling complaints</td>
<td>Responding quickly and with sincerity to customer complaints and raising the standard of quality control to prevent recurrence.</td>
</tr>
<tr>
<td>Internal quality auditing</td>
<td>Internal auditing to check that the company’s quality management systems are working efficiently and effectively.</td>
</tr>
</tbody>
</table>

Aiming to Create a Framework for Achieving World-Leading Quality and Cost Competitiveness

Our ideal of quality assurance is a structure which produces the top quality at the best price in the world. Consequently, we have addressed the management of quality assurance risks to date (PL suits, responsibility of supply, recalls, credit loss due to rumors, etc.) Our efforts through to fiscal 2012 have enabled us to create the base for this. We are now, therefore, focusing our efforts to attain the world-top level in terms of quality and price. In concrete terms, this refers to reducing loss, and variations in quality. These are efforts to lift process capability. We will achieve this through creative, inherent technology combined with steadfast management techniques.
Human Rights, Labor Practices and Fair Procurement

With respect for human rights and a desire to maintain healthy work environments, we design and implement our employee training and personnel programs so that all our employees, regardless of their background or values, can take pride in their work. Regarding procurement activities, we are advancing development of our CSR procurement system to build healthy relationships with our business partners.

Respecting Human Rights

ZEON requires respect for human rights and prohibits discrimination in its CSR Code of Conduct. We strive to be a business that is understanding and accepting of diverse values and where no person is discriminated based on gender, age, nationality, or other attributes.

ZEON 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.

Basic Labor Policy

To promote respect for human rights and prohibit discrimination, our goal is to encourage employees to continually evolve by pursuing high goals based on independent thinking, develop human resources systems that challenge them to achieve their potential, and maintain comfortable work environments that value dialogue toward establishing ZEON as an enterprise where every employee* can work with pride.

*At ZEON, we use “employee” to describe all workers, including both permanent and part-time workers
Human Resource Development Policy

Employees at ZEON are encouraged to visualize the employees they want to become, while ZEON tailors its education and training practices to help each employee bridge the gap between their current and visualized selves and to take daily steps toward that vision. By fairly assessing the results of those actions and changing how we treat each employee accordingly, we encourage employees to set ever-higher goals. All of these concrete, iterative actions to effect change and improvement are harnessed toward creating a more vital workforce across the company.

Creating Workplace Environments that Protect Human Rights and Health

Building on the important prerequisite of regulatory compliance, ZEON seeks flexible work practices guided by such principles as motivation, reliability, achievement, stability, safety, and security, with special importance given to our corporate social responsibility. We work endlessly to build comfortable working environments from five perspectives: supporting flexible work styles for a work-life balance, enhancing workplace environments, encouraging dialogue, improving health, and supporting self-reliance.

Programs and efforts to realize comfortable working environments

We are always striving to build more comfortable working environments. These efforts include reducing overtime work, implementing flexible working practices, and instituting systems to support childbirth, childcare, and family care.

Labor agreements and communication between management and employees

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 achieved a labor agreement aimed at maintaining peaceful relations between the two parties and cooperating to grow the company in a healthy manner and to maintain and improve working conditions for union members. In addition, numerous opportunities are provided to exchange opinions, including quarterly roundtable meetings with management.

Sound Partnerships with Suppliers

In order to provide safe products to our customers, we at ZEON conduct procurement of raw materials based on our CSR Policy and CSR Code of Conduct. In our procurement, we forbid substances whose handling is prohibited and monitor for the presence of substances governed by laws and the RoHS Directive. We also diligently disclose information on the substances contained in our products.

Additionally, in fiscal 2012 we created a system for CSR procurement, and formulated the CSR Procurement Guidelines and the Requests for Suppliers, which integrate a CSR-oriented perspective into existing QCD*. Starting in fiscal 2013, we will implement regular surveys based on these documents, and take appropriate responses according to the survey results.

* The system for production management that controls and improves quality, cost, and delivery.

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.

After the informal meeting
Relationship with Society

Establishing stable plant operations while concurrently forging trust is highly crucial to ensuring that the local community lives in peace. Based on our motto of stability, safety, and security, we are building plants that win the trust of local residents.

Exchanges with the Local Community

Sponsoring festivals

We sponsor events at each of our offices, such as summer festivals, and participate in festivals sponsored by the local community to promote interaction with local residents and the families of our employees.

For example, the Tokuyama Plant’s ZEON Waraku Odori Dance Festival, which was first held in 1974, has become a regular summer event in the Tokuyama region. Every year, more than 2,000 people participate in the festivities, making for a very lively event. Employees extend their hospitality, offering people yakitori (skewered chicken) and oden (hodgepodge stew), and mingle with local residents.

Volunteer cleanups in local communities

Employees volunteer to participate in cleanup projects organized by the local community or jointly implemented with nearby companies and also to tidy up around our own offices.

One example is the volunteer cleanups started by the Mizushima Plant in 2006. At the time, the plant was looking for some activity that would be helpful to and also appreciated by local residents. Since 2012, the plant has taken its program a step further and worked with local residents to clean up the river.

Offering tours of our plants and research laboratories

Our offices actively accept high schools, vocational schools, universities, local governments, business partners, and other interested community members to come and tour our plants and research laboratories. The objective is to enhance the openness of our offices. Recently, we have had visitors to our offices from overseas, mainly China, Taiwan, and Thailand.

Furukawa Scholarship

The Furukawa Memorial Foundation is an incorporated foundation with a 48-year history of granting scholarships to Japanese and foreign students experiencing financial hardships to encourage them to continue their education. Our company has maintained involvement to assist the foundation in their activities. To date, the foundation has awarded scholarships to a total of 2,838 people.
Relationship with Shareholders and Investors

Through active communication and disclosing the right information at the right time through various media, we strive to help our shareholders and other investors fully understand our business.

Communication with Shareholders

General meeting of shareholders

On June 28, 2012, we held our 87th annual general meeting of shareholders in a conference room of 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 with panel displays explaining clients’ commercial products that use our manufactured goods.

To allow investors who cannot attend the meeting to exercise their voting rights based on a full review of the proposals, we mail out notices approximately three weeks prior to the meeting. We also post resolutions from the general meeting of shareholders on our website, and also upload audio files of the presentation at our quarterly financial results briefing and videos of presentations by top management on the current status of management at ZEON held twice a year.

Informing investors

We send a pamphlet featuring articles on the current status of ZEON’s businesses, relevant topics, and other information to shareholders twice a year. In the 88th Midyear Report issued in December 2012, we included a survey for individual shareholders, and received nearly 1,000 responses. We will use the opinions and feedback received to improve the accessibility of the Midyear Report and to make it better meet these shareholders’ needs.

Communication with investors

We engage in active communication with institutional investors and analysts from both Japan and abroad.

We held analyst briefing sessions to announce our fiscal 2012 quarterly results in August and November 2012 and February and May 2013. In addition to summarizing financial results, sessions for the 2nd quarter and the end of the fiscal year included a briefing from top management on the current status of management and our Mid-Term Management Plan, SZ-20.

We also strive to provide individual investors with up-to-date information on our business. For example, we launched a website dedicated to that purpose, and uploaded videos of briefing sessions held for individual investors.

We also try to seize various other opportunities to provide information to investors. In fiscal 2012, we took part in two individual investor events entitled “ZEON creates the future today through the power of chemistry.” At these events we clearly presented ZEON products used in day-to-day living along with our future business plans.

For foreign investors, we participated in a conference hosted by Daiwa Securities Co., Ltd. as we did last year. Going forward we plan to take advantage of more opportunities to communicate with foreign investors.