This booklet has been printed on paper made from forests that are managed in accordance with internationally agreed principles and standards with respect to economic, social and environmental considerations.
Introducing the 2009 CSR Report

ZEON Corporation's 3-year mid-term management plan known as PZ-3 which covers the years 2005 to 2007 acknowledged the importance of CSR*1 (Corporate Social Responsibility) and established a shared awareness of this importance across the entire ZEON group. The company has worked to spread CSR through its business activities and regional and social involvement by strengthening its compliance systems, achieving reliable and safe plants, and coexisting harmoniously with local communities.

The IZ-60 (Innovation Zeon 60) 3-year mid-term management plan for 2008 to 2010 looks forward to the 60th anniversary of the company's founding. The plan aims to produce products and factories that are friendly to the environment and generate value that will please both our customers and wider society through our activities as a manufacturer that emphasizes CSR, is rigorous about compliance, and puts safety first based on a recognition that the company is a social organization. Despite revisions to IZ-60 resulting from the rapid changes in economic conditions triggered by the current worldwide financial crisis, the plan retains both these core concepts and the objective of conducting our business in such a way that the emphasis on CSR is an unquestioned prerequisite.

Although it is anticipated the current difficult business climate will continue, we intend to continue to work hard to contribute to society, primarily through our core business, by establishing flexible organizational structures and mechanisms that allow us to satisfy the demands and expectations of shareholders and other stakeholders associated with the ZEON group.

We hope that this report will help improve understanding of the CSR activities carried out by the ZEON group. If you have any comments or questions, please do not hesitate to contact us.

September 2009

Message

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*1 CSR is an abbreviation for "Corporate Social Responsibility"
President's Message

Our corporate name ZEON is an amalgamation of the Greek words "GEO" (meaning the 'EARTH') and "EON" (meaning "ETERNITY"). It represents a direct statement of our corporate mission.

ZEON Corporation's 3-year mid-term management plan for 2008 to 2010 (IZ-60) published in May 2008 reinforced our evolving commitment made in the 2005 to 2007 management plan (PZ-3) to emphasize CSR in our activities, and we have operated our business with the aims of improving corporate value and producing factories and products that are friendly to the environment through our activities as a manufacturer for whom an emphasis on CSR, rigorous compliance, and a safety-first approach is an unquestioned prerequisite, and in our role as a chemicals company that aims, based on a recognition that the company is a social organization, to contribute to society by using advanced innovation to deliver in a timely manner products that will please our customers around the world.

Although some revisions were made to the IZ-60 plan amidst the rapid changes in economic conditions triggered by the worldwide financial crisis that started in autumn 2008, the revisions were limited to adjustments to our corporate targets in accordance with the changed economic circumstances. The changes left the core concepts unchanged and it was made clear that these will be our top priorities for the remaining two years covered by the plan. Accordingly, the core strategy for 2009 to 2010 identified three key issues on the basis of our all-encompassing emphasis on CSR and that "difficult times provide an opportunity for fundamental change and build the foundation for future development".

1. Move to a business model that remains profitable at 70% utilization.
2. Place an emphasis on cashflow and reduce interest-bearing debt.
3. Improve the quality and speed at which research and development is transformed into production technology.

Although the difficult business conditions look likely to continue for the foreseeable future, ZEON Group aims to continue operating our business in a way that is friendly to the global environment in order to protect the global environment, contribute to society, and achieve sustainable progress of the company and society based on our corporate philosophy of "contributing to the global environment and the prosperity of the human race".

ZEON Group has worked on numerous product developments that contribute to environmental protection through "original technology that does not imitate others and cannot itself be imitated".

Some examples of these products include rubber for fuel conserving tires, latex for gloves that eliminate protein allergies, and "Zeoglobule" polymerized toner that helps reduce energy use in copiers.

The excellent optical characteristics of the "ZEONOR" and "ZEONEX" cycloolefin polymer products help to improve the energy efficiency of LCD TVs and make them even thinner. The environmentally friendly characteristics of these products is demonstrated by their use such as in medical containers and equipment and in the substrates for organic EL, the next-generation energy-efficient lighting technology demonstrated at the GS Summit at Toyako. "ZEONOR Film" received technical awards in two different categories of the 2008 'Katashi Aoki' prize awarded by the Japan Society of Polymer Processing and this method of producing optical film by molten extrusion without the use of solvents has made a significant contribution to the environment. Similarly, the Zeorora next-generation fluorochemical cleaning agent that won the Stratospheric Ozone Protection Award in the US also helps protect the ozone layer and prevent global warming.

In addition to supplying these products to society through reliable and safe production methods established through our past Responsible Care activities, our aim is to operate our business with even greater efficiency and reliability through production innovation, NPS, and business innovation. To strengthen our Responsible Care activities further, we also signed up to the Responsible Care Global Charter in January 2009.

Regarding compliance issues and corporate ethics, our aim is to uphold sincerely the values and ethics required of a corporate member of society, not just those obligations imposed by regulation, and by so doing maintain fair business practices and conduct our business in harmony with the local community and the general public.

In terms of information disclosure, we have always strived to supply as much information as possible in an easily understood form and, in a survey that ranked the corporate web sites of all listed companies carried out by Nikko Investor Relations in 2008 based on how comprehensive they were, our web site was placed 18th out of a total of 3,920 companies rated and 2nd amongst companies in the chemical industry. In the future, we will continue working to improve even further our information disclosure.

Based on a recognition that the company is a social organization, ZEON Group aims to continue contributing to the sustainable development of society and meeting the demands and expectations of all our stakeholders, including the local community, customers and shareholders, through speed, dialogue and by contributing to society. We aim to establish ourselves as a group with a strong emphasis on CSR that the public can trust and of which our employees can be proud by strengthening our compliance systems, achieving reliable and safe plants, and coexisting harmoniously with the community and wider society.

Finally, I would like to take this opportunity to say thank you for reading this report, and we welcome your opinions and suggestions.

September 2009
ZEON makes an important contribution to society with unique technology

ZEON boasts a range of products including synthetic rubber especially designed for timing belts and other safety-critical components in automobile engines, green note aroma chemicals (leaf alcohol) for perfumes and food flavors, and environmentally friendly products such as lightweight, transparent cycloolefin polymer resins and etching gases for semiconductors that do not harm the ozone layer.

At ZEON, we strive for innovative and revolutionary new technology that “does not imitate others” and “cannot itself be imitated” and continuous improvement in our core strengths. Our ultimate aim is to establish a leading presence in society.
Corporate Philosophy and CSR Activities

Corporate Philosophy
"ZEON will contribute to the preservation of the Earth and the prosperity of the human race."
In keeping with its name which derives from the Greek words "geo" (meaning the "earth") and "eon" (meaning "eternity"), ZEON will contribute to the sustainable development of people, society and the global environment through innovative world-class technologies.

CSR Concept
Recognizing our role as a social organization, ZEON aims to be a company that is trusted by society and at which its employees are proud to work.

1. In recognizing that the company is a social organization, we will always keep our corporate social responsibilities (CSR) in mind.
2. We will create a group that is trusted by society and that is a rewarding place to work of which our employees are proud.
3. We will each take responsibility for implementing CSR through measures such as enhancing compliance systems, achieving reliable and safe plants, and coexisting harmoniously with the local community and society.
4. We will contribute to the sustainable development of people and society and the global environment by implementing CSR with an emphasis on speed, dialogue, and contributing to society.

ZEON’s 7 Articles (Code of conduct for ZEON executives and regular employees)

1. ZEON embraces corporate ethics and acts as a socially responsible organization.
2. ZEON values the environment and safety.
3. ZEON contributes to society with innovative technology.
4. ZEON delivers products that satisfy the customers.
5. ZEON values an organization that makes the best use of individuals.
6. ZEON overcomes challenges through full participation and distributes the benefits fairly.
7. ZEON values speed of decision-making and delivery date of work.

3-Year Mid-Term Management Plan (IZ-60)

IZ-60 Concepts
Contribute to the sustainable development of people and society and the global environment
A company that is trusted by society and of which its employees can be proud

- Enhance compliance systems
- Achieve reliable and safe plants
- Coexist harmoniously with the local community and society
- Speed
- Dialogue
- Social Contribution

The company as a social organization

Core Strategies and Key Issues for IZ-60 in 2009 and 2010
1. Move to a business model that remains profitable at 70% utilization.
2. Place an emphasis on cashflow and reduce interest-bearing debt.
3. Improve the quality and speed at which research and development is transformed into production technology.

Difficult times provide an opportunity for fundamental change and build the foundation for future development.
**Environment Philosophy and Safety Philosophy**

**Environment Philosophy**
1. Environmental protection is a mission for socially responsible organizations.
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.

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

*5S: Seiri (neatness), Seiton (order), Seiso (cleanliness), Seiketsu (hygiene), and Shitsuke (discipline)

**Responsible Care Policy**
1. Prioritize the environment and safety
   - Protecting the environment and ensuring safety are preconditions for all business activities and are the most important priorities. We will work continuously and uncompromisingly to enact accident prevention countermeasures, and provide education and training for all employees to prevent safety and environmental accidents.
2. Collect and distribute the latest information on chemical products
   - We will collect, store and manage the latest information required for the appropriate handling, use and disposal of chemical products, and distribute this information to employees and users.
3. Minimize the discharge of toxic chemicals and waste
   - We will work to reduce the discharge of toxic chemicals, 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.

**CSR Promotion System**
A CSR Coordination Division was established to oversee the company’s social responsibilities as part of organizational changes that occurred in June 2008.

**CSR Promotion Organization**

- **President**
  - Risk Management Committee
  - Compliance Committee
  - Environment and Safety Promotion Meeting
  - Quality Assurance Promotion Meeting
  - Corporate Governance Committee

- **CSR Director**
  - Environmental & Safety Affairs Department
  - Legal Department

- **CSR Team**
  - Corporate Communications & Public Affairs Group

**Company-wide Audits**
1. Review by top management
2. Business audits
3. Responsible Care audit
4. P&L audits of operational departments and affiliated group companies
5. Voluntary safety audit
6. Plant technology audit
7. Safety inspection of affiliated group companies
8. Information security audit

**Plant Audits**
1. Review by plant manager
2. Environment ISO internal audit
3. Quality ISO internal audit

**Meetings**
- **Environment and Safety Meeting (every month)**
  - Discussion and decision-making concerning the plant environment and safety.
  - Chairman: President

- **Quality Assurance Meeting (twice a year)**
  - Discussion and decision-making concerning chemical safety and product liability.
  - Chairman: President

**Audits**
- **Environment and Safety Promotion Meeting (twice a year)**
  - Discussion and decision-making concerning company-wide policies and actions on the environment and safety.
  - Chairman: President

**Company-wide Audits**
- **Environment ISO internal audit**
- **Quality ISO internal audit**
Corporate Governance and Internal Controls

Our Basic Philosophy Regarding Corporate Governance

The company focuses on increasing profits and constantly aiming to enhance its corporate value while balancing various interests, focusing on the shareholders and other diverse stakeholders. To achieve this, we have continued to put effort into corporate governance, building a system to allow efficient and sound corporate management.

In addition, by establishing an internal controls system, we are clarifying the functions and roles of each organization within the company, enabling speedy decision-making and implementation. We are also conducting appropriate monitoring and information disclosure in respect of the progress and outcomes of our activities to improve business transparency. In order to carry out these functions effectively, we are determined to enhance our corporate governance system.

Internal controls system
A ‘Basic Policy for Implementing an Internal Controls System’ was authorized at the directors’ meeting in April 28, 2006 and a decision to revise the policy was made at the directors’ meeting on March 26, 2008 and March 23, 2009 based on subsequent progress in streamlining the internal controls system.

In accordance with this basic policy, a ‘corporate governance and internal controls system’ was created and activities are under way throughout the ZEON group aimed at ensuring rigorous risk management and compliance with regulations.

Operating officers structure
The operating officers group structure was established to improve management efficiency and speed up execution of operations.

Strengthening the Risk Management and Compliance System

Work on risk management and compliance activities in the ZEON group is currently progressing primarily through five committees under the supervision of the Risk Management Conference chaired by the President. These committees are the Risk Management Committee, Compliance Committee, Anti-trust Law Regulatory Committee, Security Export Control Committee, and Internal Control Committee.

The Crisis Management Committee is responsible for taking precautionary measures against potential risks, handling any actual incidents when they occur, and implementing measures to prevent recurrence.

The Compliance Committee is the body in charge of prevention, education, training and auditing activities to prevent violations of laws and regulations. In 2008, workplace training on compliance with laws and regulations was continued from the previous year, with new initiatives including a revision of the compliance textbook and proclaiming November as ‘compliance month’. Activities undertaken to improve awareness of compliance issues by ZEON Group executives and employees during ‘compliance month’ included a call for people to submit compliance slogans, publishing of messages from top management at the various sites and group companies, and e-learning courses.

The Anti-trust Law Compliance Committee is the body established to prevent any breaches of anti-trust law by executives or employees of ZEON and ZEON’s group companies.

Numerous price changes were made during 2008 in response to the rising cost of oil, and the committee performed strict assessments of these changes before they were put in place. The group’s external lawyer was also invited to run a training session on international anti-trust law.

The Security Export Control Committee is the body responsible for ensuring that export-related laws and regulations are complied with and applied appropriately. Activities in 2008 included reviewing internal company rules and holding training sessions on the revisions to deal with the partial amendments to the Export Trade Control Ordinances.

Internal Control Committee aims to establish and review internal controls relating to financial reporting and administer the company’s internal reporting regulated by the Financial Instruments and Exchange Law. The committee’s activities with regard to the company’s internal reporting system in 2008 are described on the next page.

ZEON Group’s Risk Management / Compliance System

Crisis Management Conference
Local Compliance Committee
Prevention of law violations
Education, training, and audit of compliance with laws

Preventing violation of the Antitrust Law
Anti-trust Law Compliance Committee

Security Export Control Committee
Prevent counterfeiting

Internal Control Committee
Promote establishment and evaluation of internal controls relating to financial reporting

ZEON Compliance Code of Business Practice

Individual stakeholders of the ZEON Group such as its officers, employees, shareholders, and customers
**Corporate Governance and Internal Controls**

**Business Continuity Planning**

There is a need to establish business continuity plans (BCPs) to minimize the impact on neighboring communities, customers, suppliers, and other affected groups to ensure that our business can continue to operate and recover quickly if risks such as the new H1N1 influenza, natural disasters, or accidents become a reality.

ZEON Group started work on developing such plans from a CSR perspective in 2007, with specific measures being put in place beginning from last year. Specific plans are to be collated during the period for five potential risks, these being a large earthquake in the Kanto region, an explosion at a production plant, an outbreak of a new strain of influenza, disruption of product distribution or supplies of raw materials, and product liability problems.

**Ensuring Information Security**

Along with work on establishing a comprehensive information technology framework for improving operational efficiency and quality, ZEON Group is also working on ensuring information security. A company-wide anti-virus system was installed in 1997, security policies were established in 1999, a ZEON information security code was established in 2002, and comprehensive internal rules were established for affiliated group companies in Japan in 2005. An information systems committee chaired by ZEON Corporation’s head of IT meets regularly as the top-ranked decision-making body for matters relating to information security. As improving the level of information security requires not only organizational and technological measures, but also the understanding and action of everyone involved, updated e-learning training courses were conducted during 2008 as part of a regular training regime. Also, internal audits were conducted to ensure that policies are being put into practice correctly in the workplace and to reinforce awareness amongst staff of the importance of information security.

The information systems department has also worked with an affiliated company (ZIFTEC) that performs development, operation, and maintenance work to revise and improve business processes and to introduce and deploy FTIL (Information Technology Infrastructure Library) as part of a strengthening of internal controls and information security. ZIFTEC received IMS (Information Security Management Systems) accreditation in 2004 and this accreditation was renewed after a review audit in 2008.

**U-SOX Compliance**

A company-wide project to comply with the internal reporting regime (known as J-SOX, the Japanese version of Sarbanes-Oxley Act) was launched in April 2008 to prepare for full-scale implementation (in April 2008). The primary focus of the project has been documenting how the ZEON Group should go about ensuring the accuracy of its financial reporting. Since J-SOX came into full force in the 2008 financial year, the J-SOX regime has been administered based on the operational standards and in cooperation with the audit personnel, with the Internal Control Committee established as the body responsible for administering the regime, an internal audit team set up in the Audit Group to evaluate the effectiveness of the controls, and the staff responsible for the work at each company site appointed as coordinators.

As a result, at the time of the review carried out as of March 31, 2009, an internal controls report was submitted to the Financial Services Agency in the President’s name stating that the company had effective internal controls for financial reporting. The company also received a favorable internal control audit report from auditor Ernst & Young ShinNihon LLC on June 26. Now that the J-SOX regime is in its second year of operation, we will work to ensure that the administrative systems become established smoothly and to adopt measures for improving the efficiency with which the work is carried out in the field.

**Audits**

**ZEON and Affiliate Audits**

**Business audits**

We conduct audits to determine whether all of our business activities are carried out appropriately and correctly in accordance with laws and regulations. These audits cover the administrative departments, plants, and laboratories of ZEON Corporation itself as well as affiliated group companies. In most cases, these audits involve visiting the department concerned to perform an on-the-spot inspection. Audits were carried out at 26 departments or affiliates during 2008, including at our US subsidiary.

**PL audits**

An audit team led by the head of the Quality Assurance Department performs an annual audit focusing on PL (product liability) and chemical safety at the operational departments and affiliate companies.

**Information security audit**

An annual information security audit is conducted for all departments that handle information assets to check whether information security rules are being observed correctly and offer guidance. In 2008, all departments that handle information assets were conducted in the form of “self-diagnosis” with individuals conducting self-evaluations using a questionnaire and the person in charge of security in each department using a security audit sheet to conduct a security evaluation of their department.

**Internal Plant Audits**

**Diagnosis by the Plant Manager**

All the plant managers review the implementation status of Responsible Care measures at their own plant at least once a year.

**Internal QMS and EMS audits**

Regular internal audits are performed to check the implementation status of the QMS (Quality Management System) and EMS (Environment Management System) based on the ISO 9001 and ISO 14001 manuals respectively. Both internal and external courses are provided at each plant to train employees to be internal auditors.
Strengthen the building-in of quality in design and development of new chemical substances, their safety and their effect on the environment, including ongoing funding and information provision. 

1) We perform our own safety evaluations through participation in the HPV Initiative. • We sponsored the registration of one compound under the Japan Challenge Program and submitted a safety information collection report. • In association with American and European counterpart firms, we participate in a consortium (IBSP) of companies producing hydrocarbon solvents to collect sales- and use-related information. 

2) We provide our approval and provide ongoing financial support to the Long-range Research Initiative (LRRI) for research into the effect of synthetic rubbers on health and the environment which is proceeding with cooperation from chemical industry bodies in Japan, the USA, and Europe (Japan Chemical Industry Association, American Chemical Society, and European Chemical Industry Council). • LRRI: Long-range Research Initiative

3) We support investigation into understanding and countering the environmental impact of synthetic rubbers through participation in the Far East subcommittee of ISRIP. • ISRIP: International Institute of Synthetic Rubber Producers

Other Initiatives Relating to Chemicals and Product Safety

1) Implementation of product safety reviews

We strive to ensure product safety from every possible perspective by conducting reviews using checklists we formulated that consider product safety at every stage of the product lifecycle from initial research through development, manufacturing, sales, to disposal. Five risk assessments were conducted during the 2008 year.

2) We publish MSDSs for all products

Information regarding product safety is supplied to customers in the form of MSDSs (Material Safety Data Sheets). ZEON has published MSDSs for all our products and a portion of waste materials, not just for the hazardous materials required by law (notifiable substances under the Occupational Health and Safety Act, substances specified in the Pollutant Release and Transfer Register (PcTR) Law, and toxic substances under the Poisons and Deletious Substances Control Law).

3) We are considering unified management of chemical substances

We have initiated study into the use of IT to perform unified management of chemical substances with objectives that include [1] sharing information about chemical substances, especially products and raw materials handled within the company, [2] more precise promulgation of MSDSs and other forms of safety information for chemical substances, and [3] being able to respond quickly to new domestic and international regulations relating to chemical substances through unified management of the substances contained in products.
Relationship with Shareholders and Other Investors

Communication with Institutional Investors and Analysts

We respond positively to media coverage and visits by institutional investors and analysts from both within Japan and abroad. ZEON held briefing sessions for analysts in May and November 2008. In addition to summarizing financial results, the May session also included the announcement of IZ-60, our mid-term management plan for the three years commencing in 2008. However, because of the major changes in the environment in which our business operates due to deterioration of economic conditions, the November session included a briefing by top management on “our outlook for the market” in place of the progress report for the 3-year mid-term management plan.

In June 2008, ZEON held a factory inspection tour on a mid-term management plan with a highlight being the Integrated Production methodology for production innovation. The tour was attended by 21 analysts.

In June 2008, ZEON held a factory inspection tour with a high-light being the Integrated Production Center (IPC) as the basis for “monozukuri” manufacturing. The tour was attended by 21 analysts.

Communication with shareholders

To make it easier for shareholders to understand our business, on the day of the annual general meeting we stage an exhibition that includes staff giving explanations along with display panels and other presentations showing actual commercial products or models of products that use our manufactured goods.

On our website, we have also posted audio of the financial results presentation at our analyst briefing and video of the 3-year medium-term management plan presentation given by top management. (Currently we are posting the “2008 financial results presentation (audio)” and “progress of the 3-year medium-term management plan (video)” from the May 2009 briefing.)

We are also posting videos of the “Reporting items” segment of the annual general meeting on the Shareholders Meeting page of our IR Information site.

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

Dialogue with the Local Community

Tokuyama Plant

The “Sixth East Yamaguchi Responsible Care Regional Dialogue” (organized by the Japan Responsible Care Council) held on November 7, 2008 was the biggest such gathering yet, being attended by 201 people including administrative officials and people from regional government and citizen groups.

Professor Ori of Kanto Gakuen University College of Law was invited to give the keynote address which was entitled “Environmental Issues from a Family Perspective” and the event also included a panel discussion which produced a lively exchange of views.

Kawasaki Plant

We run an ongoing program of activities aimed at being a plant that is open to the community, including accepting visits from students, companies and organizations from Japan and overseas, and inviting nearby companies and neighborhood associations to join our plant welfare activities.

Mizushima Plant

Each year in August, the ZEON Summer Festival is held in the company condominium car park at Sasaoki in Kurashiki City. In addition to staff and their families, the invited guests include people who live nearby and people from associated companies. Plant employees plan and run stalls and events and do their best to ensure that everyone who attends from children to adults has an enjoyable day. Many people look forward to the annual summer festival and attendance is growing each year. Last year’s event was attended by about 800 people. ZEON plans to continue holding this big event to help deepen its involvement with the local community.

Internship

R&D Center

Five pupils from Tsuruoka National College of Technology, Anahikawa National College of Technology, and Tomakomai National College of Technology took up an internship that lasted from July 29 to August 8, 2008.

Relationship with Universities

SPSJ (the Society of Polymer Science, Japan) Award for the Outstanding Paper in Polymer Journal sponsored by ZEON

This award promotes research and encourages young researchers from Japan and overseas by presenting awards for technical papers of particular excellence chosen from amongst the papers published in the Polymer Journal of the Society of Polymer Science, Japan.
Respect for the individual

ZEON strives to be a company that inspires pride in each and every employee.

### Relationship with Employees

#### Basic Philosophy

**Encourage Employees to Keep Challenging Lofty Goals Under Their Own Initiative**

ZEON’s concept of ‘being who we want to be’ is about people who can act on the basis of thinking rigorously for themselves and who can continue to change in order to achieve lofty goals. The company aims to foster people who can take a rigorous approach to challenges, work autonomously, and undertake ongoing improvement toward the achievement of these goals.

For each management level and department, ZEON maps out individual objectives in the form of an ‘image of what we want to be’, and has revamped its education and training practices to make them relevant to specific daily activities and not just to filling the gap between these objectives and current reality. The aim is that employees can go on to accept the challenge of even loftier goals by conducting a fair evaluation of the results achieved by performing these tasks that can then be reflected in that employee’s terms of employment.

The end result of each employee challenging lofty goals is the accumulating of these efforts to build up the ‘workplace strength’ of the company as a whole.

#### Human Resources System That Gives Employees a Sense of Challenge and Achievement

ZEON believes that a truly competitive company is the sum of the skills of its employees and we aim to create a human resources system that gives employees a sense of achievement by giving each employee the opportunity to challenge lofty goals, to act on these goals, and to have the outcomes reflected fairly in their employment terms, with the entire organization pointing in the same direction.

In particular, timely reviews are conducted on the basis that ‘there is no such thing as a 100% mark in an employee performance appraisal scheme in which people rate other people’. Following discussion at various levels of management during 2008, the scheme is to be revised from 2009 onwards to place more emphasis on process and team performance. Also, a ZZ allowance has been introduced as an incentive for action as part of the company-wide ZZ program for the comprehensive elimination of loss and waste.

The performance pay system takes account of performance appraisals over the ten years prior to retirement age and reflects this in the lump sum payment on retirement with the expectation that employees will remain motivated and feel a continuing sense of achievement right up to retirement age.

After retirement, former employees have the opportunity to remain involved with the company by becoming a ZEON Master to help pass on skills and train their successors.

Refocusing the performance appraisal system to encourage personal development and foster teamwork while challenging even lofty goals is an effort ‘to be who we want to be’.

The performance appraisal system used at ZEON has been based on objectives management, seeking to encourage personal development and foster teamwork while challenging even lofty goals.

**Attendance at advanced English language training course**

I attended a 16-month long advanced English language training course as part of my work. The course content was not limited just to conventional English conversation and instead focused on areas relevant to actual business situations, including presentation skills and role-playing in meeting situations. A particularly significant feature of the course material was that it included things I was working on how to construct a speech, want to work hard while keeping up my study so that I will be ready to put the benefits of the training to good use in overseas assignments.

Shinzo Suzuki
Head Office
Respect for the individual

Relationship with Employees

ZEON strives to be a company that inspires pride in each and every employee.

An Easy Working Environment That Emphasizes Dialogue

Flexible working practices
- Ongoing commitment to creating an easy working environment centered around the four perspectives of "better workplace environments," "encouraging dialogue," "improving your health," and "supporting self-reliance (based on a life plan)."

Support for the next generation
- The "Law for Measures to Support the Development of the Next Generation" came into force in 2000 as part of government policy for dealing with the low birth rate, and ZEON has established an action plan up to March 2010 for supporting the raising of the next generation.

Dialogue between management and labor
- Numerous opportunities for exchanges of opinion are provided including formal and informal meetings between management and labor, RC audits, and joint management and labor patrols.
- Consultative meetings between management and labor provide ample opportunity for forthright discussion and both sides enter into this with a forward-looking attitude and a mutual spirit of friendly rivalry based on an underlying trust between management and labor.

The company and labor union need to work together to rally the strengths of everyone in the ZEON Group toward proactive engagement so that policies aimed at the expansion of the company can be implemented in a comprehensive manner based on the company's basic policy that "difficult times provide an opportunity for fundamental change and build the foundation for future development." To this end, the parties agreed on a "joint declaration by labor and management aimed at the growth of the company" that is tailored to the new era.

ZEON intends to work proactively to provide opportunities for dialogue with the labor union and to proceed with a number of policies aimed at making ZEON a "company of which its employees can be proud" through a beneficial partnership between labor and management based on mutual respect for each other's positions.

Achievements

Overview of 2008 Plan and Results

<table>
<thead>
<tr>
<th>Item</th>
<th>2008 Plan</th>
<th>2008 Results</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Eliminate environment and safety abnormalities</td>
<td>(1) Full implementation of plant safety evaluations</td>
<td>40 investigations performed</td>
<td>40% under target</td>
</tr>
<tr>
<td></td>
<td>(2) Enhance the 5S safety program and expand to affiliates</td>
<td>The same 5S safety audit was performed company-wide at employees' workplaces over 40 years ago. 5S safety audits were also performed at affiliated group companies.</td>
<td>100% performance</td>
</tr>
<tr>
<td></td>
<td>(3) Training to raise awareness of accident prevention</td>
<td>No environment incidents, two safety incidents</td>
<td>100% performance</td>
</tr>
<tr>
<td></td>
<td>(4) Zero environment incidents, zero safety incidents</td>
<td>No environment incidents, two safety incidents</td>
<td>100% performance</td>
</tr>
<tr>
<td>2. Promote occupational health and safety</td>
<td>(1) No lost-time accidents, no serious non-lit atmosphere accidents</td>
<td>No lost-time accident, no serious non-lit atmosphere accidents</td>
<td>100% performance</td>
</tr>
<tr>
<td></td>
<td>(2) Safe work system, limits on out-of-hours work and elimination of late night work, forward-looking attitude and a mutual spirit of friendly rivalry based on an underlying trust between management and labor.</td>
<td>No environment incidents, two safety incidents</td>
<td>100% performance</td>
</tr>
</tbody>
</table>

With compliance with regulations as a prerequisite, ZEON strives to achieve flexible working practices based on the company's key words of "motivation", "reliability", "achievement", "stability and safety", and "security". In terms of health and welfare programs, the company has an ongoing commitment to creating an easy working environment centered around the four perspectives of "better workplace environments," "encouraging dialogue," "improving your health," and "supporting self-reliance (based on a life plan)."
Eco-friendly Product Development

**Synthetic rubber for fuel-efficient tires**

Synthetic rubber is the primary material used in the car tires that contribute to the safety and comfort of vehicles. As growing concern about global environmental problems brings with it demand for more fuel-efficient tires, ZEON has succeeded in developing synthetic rubber that reduces energy losses by 20%. Tires produced using this rubber can improve fuel consumption by 1.5% (estimate by ZEON), saving on fuel use and reducing CO2 emissions.

**Zeoglobule® polymerized toner**

Pulverization is the conventional method for producing the toner used in copiers and other printing equipment. However, it is also known that using polymerization for toner production reduces energy consumption during production and results in finer toner particles. The microcapsule toner produced using a polymerization method developed by ZEON contributes to better print quality and allows the fixing temperature to be lowered. This in turn allows faster printing speeds, smaller printers, and better energy efficiency.

**Next-generation fluorocarbon detergent Zeorora® H**

Etching gas Zeorora® ZFL-58

ZEON was presented with an excellence award at the Eleventh Ozone Layer Protection and Global Warming Prevention Awards sponsored by Nikkan Kogyo Shim bun Ltd. in September 2008. The award was for the company’s Zeorora® H fluorocarbon detergent and Zeorora® ZFL-58 dry etching gas used in semiconductor manufacturing. Having gained initial recognition through the Stratospheric Ozone Protection Award from the US Environmental Protection Agency in 1999, Zeorora has since won a total of five awards including the GSC Environmental Award from the Green & Sustainable Chemistry Network (GSCN) which was awarded in 2003.

With awareness of the importance of protecting the global environment being heightened by events such as the Toyako Environmental Summit held in Japan, we believe that winning this award is of deep significance. Zeorora is a product that represents ZEON to the world as a company that places great importance on the environment and we aim to continue helping to protect the global environment by promoting its sale in the future.

**Products that Help Eliminate Use of Organic Solvents**

BM-400B binder for use in batteries

Because ZEON’s binder for aqueous lithium-ion secondary batteries uses water as a dispersant, it eliminates the cost of solvent recovery and reprocessing that is required for the alternative material PVDF (polyvinylidene fluoride) which uses NMP (N-methyl-2-pyrrolidone) as a solvent. This also helps meet working condition standards at battery production plants and contributes to lower capital investment and running costs in these plants.

* NMP: The recommended permissible concentration published by the Japan Society for Occupational Health is 1ppm or less.

**Products that Promote Energy Saving**

Cycloolefin polymer ZEONEX® and ZEONOR®

ZEONEX® and ZEONOR® are new thermoplastics that are already used in optical lenses and optical film. Utilizing their superior properties, ZEON is developing materials for use as pickup lenses in blue-laser optical disks. Also, even among the many different types of plastics, these materials combine a low specific gravity with heat tolerance and a high level of transparency. This opens up the potential for their use as a replacement for materials such as glass or high-specific-gravity engineering plastics where they could help improve energy efficiency by, for example, making automotive parts lighter.
**Safety and Accident Prevention/Occupational Health and Safety**

**Dialogue Between Management and Plants**

ZEON conducts an active program of management visits to each plant to ensure ongoing robust dialogue between management and plants. With easily understood slogans such as “good judgment saves money” as our key principles, we enter such plant visits in 2006, 46 in 2007, and 62 in 2008.

**The President Takes the Lead in Promoting Safety Management**

Recognizing that safety takes priority over all management issues, the President is at the forefront of strengthening efforts across the whole company to promote Safety Management. We constantly try to improve our standards by reviewing past accidents, determining whether current countermeasures are effective and considering new countermeasures to prevent accidents.

**Accreditation of Certified Safety Inspectors at all Sites**

Certification under the new law has been obtained for the certified safety inspectors at our Takaoka, Kawasaki, Toyokawa, and Minamata plants and at all other workplaces. Also, staff at our Kawasaki and Minamata plants have been certified to perform completion inspections.

**Plant Safety Evaluation**

When we commission a new plant or an upgrade to an existing plant, we evaluate the plant’s safety in five stages from the basic design through to the start of production. This involves setting up detailed check lists for safety evaluation with the aim of creating a more reliable and safe plant. We performed 54 such checks in 2006, 75 in 2007, and 40 in 2008.

**Plant Safety Diagnosis and Plant Technology Audits**

In addition to the safety evaluations we carry out when commissioning a new plant or an upgrade to an existing plant, we have also initiated a safety diagnosis program for our existing plants with the aim of preventing serious accidents or injury by having experienced technical staff from a different department provide technical support and undertake checks of the production technology to improve the safety level of our plants even further.

**KY (“Kiken Yochi”) Risk Assessment**

To prevent workplace accidents and deal with the potential for human error, ZEON has adopted the 4RKY (“four-round kiken yochi (risk assessment)”) practice whereby employees check for any unsafe situations before starting a task to avoid placing themselves in danger. Workers who have received external training to learn the correct methods are deployed as ‘KY trainers’ in accordance with the size of each workplace. The number of these trainers was increased further during 2008, and a KY Conference was held to promote KY activities at which competitions were held between selected teams from each workplace.
Environmental activities

**PRTR Activity**

The entire company is making an effort to reduce discharges and transfer of substances subject to PRTR.

The PRTR (Pollutant Release and Transfer Register) law applies to 38 substances used at ZEON. Total discharges reduced from 57.6 tons in 2007 to 40.9 tons in 2008. ZEON is working vigorously to reduce discharges.

### Discharge and Transfer Data for Substances Restricted by Law

<table>
<thead>
<tr>
<th>Government Administration Code</th>
<th>Substance Name</th>
<th>Amount Used (tons)</th>
<th>Discharges to Atmosphere (tons)</th>
<th>Discharges to Water (tons)</th>
<th>Total Discharges (tons)</th>
<th>Transfer Volume (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Acrylamide</td>
<td>48.2</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>3</td>
<td>Acrylic acid</td>
<td>69.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>4</td>
<td>Ethyl acrylate</td>
<td>1,149.5</td>
<td>1.4</td>
<td>0.0</td>
<td>1.4</td>
<td>0.0</td>
</tr>
<tr>
<td>5</td>
<td>Butyl acrylate</td>
<td>602.2</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>6</td>
<td>Methyl acrylate</td>
<td>543.4</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
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<tr>
<td>7</td>
<td>Acrylonitrile</td>
<td>21,838.5</td>
<td>14.2</td>
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<td>14.2</td>
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<tr>
<td>8</td>
<td>Acetone</td>
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<tr>
<td>9</td>
<td>Acrylic alcohol</td>
<td>35.0</td>
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<td>10</td>
<td>1-allyloxy-2, 3-epoxy propane</td>
<td>63.4</td>
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<tr>
<td>24</td>
<td>Linear alkylbenzenesulfonate and salt thereof</td>
<td>1,192.5</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>28</td>
<td>Isopropene</td>
<td>136,964.3</td>
<td>0.8</td>
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<td>0.8</td>
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<tr>
<td>42</td>
<td>Ethylene oxide</td>
<td>813.2</td>
<td>0.9</td>
<td>0.1</td>
<td>1.1</td>
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<tr>
<td>46</td>
<td>Ethylene diamine</td>
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<td>0.0</td>
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<tr>
<td>47</td>
<td>Ethyleneedimine tetraacetic acid</td>
<td>57.2</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>54</td>
<td>Ethylcarbinol</td>
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<tr>
<td>56</td>
<td>Propylene oxide</td>
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<td>63</td>
<td>Xylene</td>
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<td>159</td>
<td>Diphenylamine</td>
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<td>0.0</td>
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</tr>
<tr>
<td>172</td>
<td>N, N-dimethylformamide</td>
<td>219.9</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>177</td>
<td>Styrene</td>
<td>40,381.0</td>
<td>1.5</td>
<td>0.0</td>
<td>1.5</td>
<td>0.0</td>
</tr>
<tr>
<td>179</td>
<td>Diocet ana</td>
<td>0.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>227</td>
<td>Toluene</td>
<td>3,586.8</td>
<td>0.3</td>
<td>0.7</td>
<td>1.0</td>
<td>126.6</td>
</tr>
<tr>
<td>231</td>
<td>Nickel</td>
<td>34.0</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>232</td>
<td>Nickel compound</td>
<td>49.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>256</td>
<td>2-vinyldiglyme</td>
<td>155.7</td>
<td>0.3</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>266</td>
<td>Phenol</td>
<td>80.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>268</td>
<td>1, 3-butadiene</td>
<td>507,534.3</td>
<td>18.4</td>
<td>0.0</td>
<td>18.4</td>
<td>0.0</td>
</tr>
<tr>
<td>272</td>
<td>Bis phthalate</td>
<td>176.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>279</td>
<td>Benzene</td>
<td>3,735.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>307</td>
<td>Poly(cylohexyl)alkylether</td>
<td>49.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>309</td>
<td>Poly(cylohexyl)nonylphenyl ether</td>
<td>205.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>310</td>
<td>Formaldehyde</td>
<td>2.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>313</td>
<td>Maleic anhydride</td>
<td>204.1</td>
<td>0.4</td>
<td>0.0</td>
<td>0.4</td>
<td>0.0</td>
</tr>
<tr>
<td>314</td>
<td>Methacrylic acid</td>
<td>2,070.1</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>316</td>
<td>Methacrylic acid,2,3-epoxy propyl</td>
<td>5.3</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>320</td>
<td>Methyl methacrylate</td>
<td>579.5</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>321</td>
<td>Methacrylonitrile</td>
<td>2.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th>Amount of Discharge and Transfer of PRTR Subject Substances (2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount of discharge volume (167.7 tons)</td>
</tr>
<tr>
<td>Amount of discharge into water (0.9 tons)</td>
</tr>
<tr>
<td>Amount of discharge into soil (zero)</td>
</tr>
<tr>
<td>Amount of transfer (126.7 tons)</td>
</tr>
<tr>
<td>Amount of emission into the atmosphere (39.1 tons)</td>
</tr>
</tbody>
</table>

**Hazardous Chemical Substances and Industrial Waste**

Reduction of Hazardous Chemical Substance Emissions into the Atmosphere

Efforts headed by the Chemical Industry Association of Japan are being made to understand and reduce the level of emissions into the atmosphere of the twelve substances with the highest priority. Meanwhile ZEON is working actively to reduce emissions of the three substances on this list that are used at the company. Thanks to process improvements and technological developments over many years, ZEON completely eliminated the use of benzene in 2000 and consequently has achieved zero atmospheric emissions.

For butadiene, our Tokuyama Plant switched to a production process that burns the waste gas from monomer recovery in 2008 and a reduction of approximately 14 tons in annual emissions is anticipated in 2009.

We reduced acrylonitrile emissions by about 6 tons in 2008 compared to the previous year due to lower production volumes, revisions to the operating conditions for monomer recovery, and other changes. We intend to continue reducing acrylonitrile emissions through better recovery.

### Amount of butadiene emissions into atmosphere

**Reduction of industrial waste**

Our improvement target for reducing the amount of industrial waste that is ultimately disposed of in landfills is 10% or less of the final landfill amount in 1995 (a target of 962 tons). This target was achieved in 2008 with disposal of 471 tons. Measures adopted to achieve this reduction include greater incineration of activated sludge and recycling of waste plastic.

We are planning further improvements and our medium-term plan for 2015 has set an emphatic zero-emissions target of reducing the amount of industrial waste that is ultimately disposed of in landfills to 0.1% or less of the actual disposal volume in 2006 (a target of 33.4 tons). ZEON is also working actively to improve sorting in order to encourage recycling and other ways of making effective use of industrial waste.

![Graph showing reduction of industrial waste](image-url)

Note: This is the amount of waste generated in routine industrial activity that is ultimately disposed of in landfills to 0.1% or less of the actual disposal volume in 2006 (a target of 33.4 tons).
Environmental activities

Air and Water Quality

We are continuing our efforts to reduce the burden on the environment, and when installing a new plant or expanding a plant, we try our best to prevent any increase in this burden through technological improvements. We will continue to make additional efforts in the future.

Progress on reducing atmospheric pollution includes improvements in SOx and NOx emissions. The Tokuyama Plant has achieved better SOx emissions through a switch to lower sulfur fuel for its boilers in 2008. Reductions in NOx emissions, however, are a consequence of lower production rather than improved technology.

In terms of water pollution, the shutdown of PVC production at Takaoka Plant has reduced the total volume of water discharges. Waste water quality continues to meet the requirements of the Clean Water Act and agreements with local authorities. COD is a measure of organic compounds contained in waste water and we have succeeded in reducing our emissions through operating practices that balance the load on activated sludge and because the shutdown of PVC production has reduced the load. Regarding total nitrogen levels in waste water, new nitrogen elimination equipment was installed in 2007 to counter an increase in production at the Kawasaki Plant of products such as NBR (acrylonitrile and butadiene rubber) that are associated with high output of waste water by-products, and this showed results in 2008 in the form of a higher rate of nitrogen removal. We are working on further improvements and tighter management.

Resource and Energy Saving

In order to achieve the goal of “reducing the average energy consumption rate to 87% of the 1990 level by 2010” set by the Japan Chemical Industry Association, we have held energy conservation promotion meetings throughout the company and have actions in progress.

Plant utilization was down significantly in 2008 with production only 83.8% of the previous year. As a result, energy consumption was measured in terms of equivalent consumption of crude oil was 88.7% of the previous year’s level. Unit consumption index (compared to 1990 levels) went from 94.9% in 2007 to 100.4% in 2008. The drop in production was due to operating at low utilization in order to adjust stock levels in response to the sudden fall in demand that occurred during the latter part of the 2008 financial year. Although ZEON undertook various energy efficiency improvements such as waste heat recovery, these were not reflected in the unit consumption index because the benefits of this work was outweighed by the drop in utilization.

Major energy saving work planned for the Mizushima industrial complex during 2009 and the company as a whole continues to work on further improvements.

Energy Consumption Associated with Transportation

Under amendments to the Energy Conservation Law, responsibility for improving energy efficiency in transport has rested since 2006 with the party responsible for requesting transportation of the goods and raw materials (the consignor or owner of the goods and raw materials).

A company with an annual freight volume of 30 million ton-kilometers or more is defined as a designated major consignor under the amended law and is subject to additional requirements.

On the basis of its total freight shipping volume (including the four production plants and the R&D Center), ZEON is a designated major consignor and the company submitted its regular declaration to the Ministry of Economy, Trade and Industry on June 30, 2007.

Transportation energy use for 2008 measured in terms of equivalent consumption of crude oil was 4,960 kJ, which is about 18% of the 272,500 kJ of energy used in manufacturing.

The 2008 unit consumption index was 100.6% of the previous year. This slight worsening in the unit consumption index occurred because the lower production volumes meant less maritime transporta-

tion of raw materials which has superior transport energy-efficiency. However, the unit consumption index for transportation of products did improve in 2008, to 97.3% of the previous year.
Environmental Protection Costs

Capital investment for environmental protection

A major investment in pollution prevention during 2008 was the upgrade to the capacity of the aeration tanks at the Tokuyama Plant. Through introduction of aeration tubes, we have succeeded in and are continuing to reduce emissions of volatile substances that remain in products. We are focusing in particular on reducing butadiene and acrylonitrile, both toxic air pollutants, and on developing technology, designing equipment and trialing operating procedures to reduce the load of contaminants such as TN (total nitrogen) and COD (chemical oxygen demand) in waste water. Meanwhile, our affiliated group companies have been concentrating on administrative and improvement activities to recycle waste and reduce disposal to landfill.

Also, ongoing improvements are made for stable operation of the new incinerator at the Kawasaki Plant in our industrial waste performance.

Environmental protection costs

We are developing technologies to minimize waste water and to reduce the level of volatile substances that remain in products. We are focusing in particular on reducing butadiene and acrylonitrile, both toxic air pollutants, and on developing technology, designing equipment and trialing operating procedures to reduce the load of contaminants such as TN (total nitrogen) and COD (chemical oxygen demand) in waste water. Meanwhile, our affiliated group companies have been concentrating on administrative and improvement activities to recycle waste and reduce disposal to landfill.

2008 Environmental Accounting Sheet

<table>
<thead>
<tr>
<th>Item</th>
<th>ZEON Corporation</th>
<th>Affiliated Group Companies</th>
<th>Amount (Million Yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total investment amount within applicable period</td>
<td>27,803</td>
<td>28,439</td>
<td>1,051</td>
</tr>
<tr>
<td>Total research and development costs within fiscal year</td>
<td>10,664</td>
<td>10,885</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Environmental Economic Perspective

Not only are we making the environmental investments in pollution prevention equipment and resource and energy conservation equipment that appear in the environmental accounts, we are also working to improve safety through ongoing investment in improving safety and eliminating risks (safety investment).

The graph below shows the cumulative trend in total environmental and safety investment (environmental investment + safety investment).

Economic Effects

ZEON aims to put the waste resulting from oil-by-product production and similar to beneficial economic use through measures such as recycling or burning. Effort is also being put into recycling metal products such as empty drums and other containers. One energy saving measure is that ZEON pays special attention to thermal recovery in its energy-intensive distillation processes.

Environmental Economic Perspective

Since 2002, ZEON has publicly released its environmental protection costs and environmental protection effects (physical effects and economic effects) in line with guidelines issued by the Ministry of the Environment.

Environmental activities

Environmental Economic Perspective

Since 2002, ZEON has publicly released its environmental protection costs and environmental protection effects (physical effects and economic effects) in line with guidelines issued by the Ministry of the Environment.

Environmental Protection Effects

Physical effects

In the area of atmospheric pollution, a decrease in SOx emissions has been achieved by switching the heavy oil used to fire the boiler at Tokuyama Plant to a low sulfur fuel. Waste water COD (chemical oxygen demand) has also been reduced significantly due to upgrades to the capacity of the aeration tanks at Tokuyama Plant and the shutdown of PVC production at Takakita Plant. The total volume of waste ultimately disposed of in landfill has been reduced significantly by better sorting and by encouraging measures such as incineration of sludge.
Environment and Safety in Logistics

ZEON works to ensure safety and reduce the burden placed on the environment by its distribution and logistics activities.

Logistics Safety

ZEON has instituted the “Yellow Card Management Rules” for transport of toxic or dangerous products. These rules require drivers to carry a yellow card when such products are being shipped. Annual plans are also formulated at each plant to prevent logistics accidents by conducting training on product handling and similar topics through the Logistics Council.

Environmental Countermeasures for Logistics

Improving transport energy efficiency

ZEON, like other designated consigners, places a particular focus on rationalizing the use of energy for transportation. It has made a “modal shift” whereby material previously transported by truck now uses more energy-efficient rail transportation. The proportion of product distributed as freight (measured in ton-kilometers) has increased from 8.9% in 2007 to 9.7% in 2008.

Environment and Safety Training

We are working on improvements in safety management across the company through training organized from head office.

Manager and supervisor training

“Production Manager Training” and “Foreman Training” programs for plant staff with front-line responsibility for safety management were jointly organized by the Human Resource Department and Environmental & Safety Affairs Department.

The training has covered environmental and safety laws, classroom work on basic safety, and education to improve safety awareness. Also, training is conducted annually for newly appointed line managers and environmental and safety managers and this training was held once during 2008.

Safety training by past plant managers

A trial using past plant managers with extensive knowledge and experience to provide safety training for employees that started in 2003 has been continued. This training involves group lessons for all plant employees. In 2008, this course studied a serious accident that occurred during construction work to improve awareness of the safety considerations required during design and provided an opportunity to reinforce details about safety management standards for non-routine work and related topics.
Mizushima Plant

Mizushima Plant is ZEON’s flagship site and represents the core of our in-house technology which is unrivalled by our competitors. It was established in 1968 as a part of the Mizushima Industrial Zone in Kurashiki City. Starting with the technology and facilities which has been licensed for use at 47 plants in 19 countries around the world, the plant works closely with our many customers to meet their needs. We have achieved low CO2 emissions from our manufacturing activities, and our products are used in a broad range of applications including optical disks, camera lenses, CD pickups and elsewhere.

Environment and Safety Activities

(1)Reduction of toxic chemical emissions Following the adoption of closed processing systems with recovery, we have achieved zero emissions of butadiene since 2002. We are dedicated to the ongoing development of environmental strategies including measures to reduce VOC emissions.

(2)Reduction of industrial waste ZEON is one of the investors in Mizushima Ecoworks**, a waste processing facility based on resource recovery that started operation in 2004. Since then, the volume of waste ultimately disposed of in landfill has been dramatically reduced from 1,032 tons in 2004 to only 10.3 tons in 2008.

Since last year, we have also worked on measures for recycling or utilization of fuel waste plastics which have been disposed of by burning in managing processing processes so far, and the measures are expected to be established.

We are continuing with 3R (reduce, reuse and recycle) initiatives to achieve a target of 10% less of less waste ultimately disposed of in landfill.

* A combined waste processing facility that handles both ordinary waste from the Kurashiki municipality and industrial waste from the Mizushima industrial complex.

The facility is jointly owned by ten companies from the industrial complex.

(3)Reduction of atmospheric and water pollution ZEON has made every precession to protect the natural environment. In terms of “atmospheric pollution management”, this consists of making regular measurements at designated locations and measuring soot levels. For “water quality management”, it involves daily monitoring, water quality measurement, and periodic analysis of all the constituents in water. We will continue to undertake measures aimed at reducing the burden on the natural environment.

(4)Resource and energy saving Although we made significant investment in energy conservation, our results for unit energy consumption were 93% of the level in 2007 and 90% in 2008. The cause was low plant utilization resulting from the sudden deterioration in economic conditions that occurred in 2008.

Living Together with the Local Community

(1)Plant visits and walking tours We organize plant visits each year and invite local residents and high school students. We believe that these visits give our local communities greater recognition for our close involvement with the lives of the local population and the environment and about what it is we produce and in what end-products it is ultimately used.

We regularly participate in volunteer cleaning programs mainly around the Shionasu district. Each year on May 30th, the plant joins with the local government to hold a “zero trash” cleanup of the streets around the plant by removing weeds and collecting any cans or other litter.

This year’s cleanup was the fifth time this event has been held.

(2)Contributing to the community through volunteer work

A total of 264 people from ZEON Group in Takaoka, including family members, participated in the Himi Waterfront Cleanup which was held on June 1, 2008 organized by volunteer groups such as the Himi Chamber of Commerce. Similarly, 190 people joined the Fushiki Kokubu Waterfront Cleanup organized by the Takaoka City Pushi District Beautification Volunteer Group on July 6 where they all worked up a good sweat under the clear blue skies.

Takaoka Plant

Takaoka Plant was established in 1956 to produce PVC. It began the production of a specialty synthetic rubber called hydrogenated nitrile rubber (HNBR) in 2004. We are expanding into the fields of medical products, environmentally friendly, next-generation fluoride solvents that do not affect the ozone layer, and clean and efficient construction, particularly optical components for the automobile industry.

Although production of its original product, PVC, shut down in March 2008, this plant has already carried out a new role for itself. This includes plans for expansion into new areas and the plant is enthusiastic about its transformation into an up-and-coming future-oriented plant.

Environment and Safety Activities

(1)Reduction of toxic chemical emissions

Although in the past we have achieved the voluntary targets set by the PVC industry association through reductions in emissions, the adoption of closed process methods and equipment upgrades for dealing with emissions of un-reacted monomer during PVC production, the shutdown of PVC production in March 2008 means that emissions of un-reacted monomer are no longer an issue. Meanwhile, work on emissions reductions continues elsewhere and we are conducting an ongoing technical investigation into further reducing emissions of the organic solvents used in other manufacturing processes.

(2)Reduction of industrial waste

The volume of industrial waste sent to landfill in 2008 was significantly lower than in 2007. In addition to the reduction that resulted from the shutdown of PVC production, we are also working to reduce landfill volumes by reviewing how we process waste that would previously have been sent to landfill and encouraging greater reuse of resources. We are working with a recycling company to recover valuable raw materials from waste plastic, glass, oil, and other materials and we are planning to make systematic reductions in the future.

(3)Provision of water treatment service

In 2008, a reduction in production volumes over and above those associated with the shut down of PVC production meant that both waste plastic emissions resulting from boiler operation and the total discharge of waste water into the environment were significantly lower. Emission of atmospheric pollutants can vary widely depending on how well boiler operation is integrated with requirements in the factory, and stable operation is maintained by managing the plant in such a way as to avoid any variations that could lead to uncontrolled changes in the quality of the fuel and on site facilities. We are also working on emergency management measures including conducting drills for responding to abnormal situations and installing fault detection and emergency shut-down equipment to prevent the discharge of pollutants if an abnormal situation arises.

(4)Resource and energy saving

Although energy saving efforts by everyone involved resulted in lower energy use during 2008, the main reason was lower production volumes. As a result, the unit energy consumption increased. Although unit energy consumption depends on production volume, we are working to get everyone to apply their collective knowledge in the area of energy conservation in order to make further reductions and become an energy-efficient plant by operating efficiently with minimal use of energy and by rigorous day-to-day operational management and an awareness of the need for incremental savings.

Living Together with the Local Community

(1)Cleanup activities in conjunction with local government

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Bright, Happy, and Spirited!
The entire ZEON Group in Takaoka works together to undertake environmental and safety activities under the motto “achieving no accidents, no disasters, no pollution”.

Yasuo Kawaguchi

Plant Manager, Takaoka Plant
Kawasaki Plant

Mitsubishi Plant is ZEON's flagship site and represents the core of our in-house technology which is unrivaled by our competitors. It was established in 1968 as a part of the Mizushima Industrial Zone in Kurashiki City. Starting with the technology for butadiene extraction facilities which had been licensed for use at 47 plants in 19 countries around the world, the plant works closely with our many customers to meet their diverse requirements with products derived from our 25 Fraction “Total Use Business” which include “optical material resins” (used in LCD displays, optical disks, cameras, LCD displays, CD pickups and elsewhere), aromatic chemicals (including jasmonic and green note chemicals), and petroleum resins (including binder for traffic paint and adhesive tape).

Environment and Safety Activities

(1) Reduction of toxic chemical emissions

Kawasaki Plant is introducing new equipment in an effort to reduce emissions of butadiene and acrylonitrile, the main raw materials in synthetic rubber and synthetic latex. Butadiene processing volumes were increased through full-scale operation of a catalytic combustor installed in 2004 and the adoption of closed production processes. Emissions in 2008 reduced from 20 tons to 13.5 tons. Full operation of a new acrylonitrile recovery process commenced in 2005 and we have made further improvements in recovery system utilization. Emissions in 2008 were reduced from 20 tons to 13.5 tons. We aim to achieve even greater reductions in emissions of both butadiene and acrylonitrile through technical improvements.

(2) Reduction of industrial waste

The plant works to reduce the volume of industrial waste by sorting waste for collection and by improving reuse of resources (recycling and heat recovery). Through a range of measures that included more recycling and processing of sludge and greater use of sorting to separate out glass, ceramics and waste plastic, the volume of waste sent to landfill in 2008 was reduced from 400 tons to 120 tons. We intend to continue our efforts to reduce industrial waste through rigorous sorting of waste and by encouraging more recycling and processing of sludge and disposal in our own new incinerator.

(3) Reduction of atmospheric and water pollution

We completed installation of a new incinerator in 2004 and the adoption of closed production processes. Emissions in 2008 reduced from 20 tons to 13.5 tons. We aim to optimize our operating practices further to maintain and improve this removal rate.

Resource and energy saving

Although we have been working hard to meet our target of reducing the average unit energy consumption rate for the year to 2012 period to 87% of the 1990 level or better, unit energy consumption deteriorated during 2008 due to the large fall in production volume. Improvements in unit energy consumption are anticipated for 2009 and 2010, however, thanks to the full-scale operation of new refrigeration equipment installed in 2008 and the purchase of steam from a highly efficient external source. In addition, we intend to draw on the know-how of all plant employees to work towards achieving our goal.

Living Together with the Local Community

(1) With the aim of being a plant that is rooted in the local community, we conduct cleanups of the area around the plant as part of our program of beautification work. In 2008, these were conducted in cooperation with neighboring companies.

Tokuyama Plant

Tokuyama Plant started operations in 1985. The plant produces butadiene using the “ZEON Process of Butadiene” (GPB), an extraction distillation technology developed by ZEON. The butadiene is used as a raw material in the manufacture of synthetic rubber and synthetic latex that is then sold on the global market. The technology was the first in the world to produce polymerized toner commercially and has successfully expanded production.

Given our close proximity to residential areas, we place considerable importance on maintaining a dialogue with the local community and the entire workforce is committed to making Tokuyama Plant an environmentally friendly facility that is trusted by the community for its safe and reliable operation.

Environment and Safety Activities

(1) Reduction of toxic chemical emissions

Equipment to burn waste gas produced by the plant has been installed as a means of significantly reducing emissions of toxic substances to the atmosphere. The plant is currently working earnestly on further reduction measures with the aim of minimizing emissions.

(2) Reduction of industrial waste

We have established plans for reducing the volume of waste disposal of in landfill and are making improvements year by year. For the future, we have formulated a zero emissions plan that aims to reduce landfill disposal to one ton or less and will expand activities.

(3) Reduction of atmospheric and water pollution

Investment in environmental enhancements to our butadiene production process in 2005 saw us meet our target of reducing the average unit energy consumption rate for the year to 2012 period to 87% of the 1990 level or better, unit energy consumption deteriorated during 2008 due to the large fall in production volume. Improvements in unit energy consumption are anticipated for 2009 and 2010, however, thanks to the full-scale operation of new refrigeration equipment installed in 2008 and the purchase of steam from a highly efficient external source. In addition, we intend to draw on the know-how of all plant employees to work towards achieving our goal.

Living Together with the Local Community

(1) Waraku Odori (Japanese dance)

Japanese dance has become a regular feature at the Tokuyama Plant and more than 3,000 people gathered at the 2008 event, the highest number ever. The event is an opportunity for plant employees and their families to mix with local residents and

Volunteers help with Higashi-gawa river cleanup

Tokuyama Plant

S continues...
R&D Center

The R&D Center undertakes research and technology development for ZEON Corporation. The Center’s research work takes account of regulatory considerations from the earliest stages and, along with designing in product quality from the research stage, the center also develops production technology that takes account of safety and the environment, ensures the smooth introduction of new products in the production plants, and performs research and development work that delivers customer satisfaction.

**Environment and Safety Activity**

(1) 2008 Environment and Safety Activity Policy

1. Establish safe and stable production technology
2. Encourage proactive safety measures and eliminate accidents and injuries
3. Take a rigorous approach to safety management of chemical substances and comply with relevant legal obligations
4. Proceed steadily with research and development on environmental improvements

(2) Environment and safety activities

The following introduce some of the distinctive activities undertaken to implement the 2008 Environment and Safety Activity Policy.

- **Safety inspections for new experiments**

Before commencing new research topics or installing new research equipment, the research department submits details of the planned research so that the safety and supervisory departments can jointly check for compliance with relevant laws and regulations and ensure the safety of the chemical substances and that appropriate resources are allocated so that the research or technical development work can get under way safely and quickly.

Five consecutive years without accidents or injuries

The R&D Center has achieved five consecutive years without accidents or injuries (no lost-time accidents) by utilizing the safety PDCA cycle in a top-down way to nip potential dangers and hazards in the bud. The PDCA cycle is used as a top-down way to prevent accidents or injuries (no lost-time accidents) and supports the research and development work.

Five consecutive years without accidents or injuries

The R&D Center is responsible for development of new products and technologies and, in performing this work, we incorporate safety and the environmental considerations from the earliest stages of our research. We also undertake environment and safety activities that relate to our research environment and the safety of the people who work at the R&D Center. One distinctive example of these activities is the safety inspections we carry out when planning a new experiment. These inspections look not only at product quality but also consider factors such as raw materials, products, waste, regulatory matters, and the environment for the experiment. As a consequence of these activities, we have now gone for five consecutive years without any accidents or injuries. We intend to continue conducting our research and our environmental and safety activities in a way that makes avoiding accidents and injuries a matter of course.

Three principles diagnosis using 5S and 3Tei

The NPS Promotion Office directs live training and exercises through practical measures. The NPS Promotion Office provides guidance to these sessions to consider the impact and effectiveness of the improvement activities and having the improvement team participate. These sessions are conducted twice yearly to create an environment that facilitates the performing of routine work.

1. **Role of NPS Promotion Office**

The NPS Promotion Office aims to create an improvement culture at ZEON Group companies by:

1. Establishing practices and processes for identifying improvement needs for marketable ideas.
2. Supporting improvement activities at each company by taking responsibility for nurturing human resources capable of improvement through practical measures.

2. **Catchphrases**

- Steadily*, honestly*, rigorously*

Achieving “innovation and improvement” by “tirelessly taking up the challenge of market opportunities”.

3. **Details of activity**

1. **Monthly guidance meetings**

Facilitators visit group companies and work with the departments responsible for managing these improvement activities at each company to provide guidance based on actual local conditions and support human resource development through practical measures.

2. **Autonomous cross-company study groups**

ZEON Group operates a revolving process whereby each group company selects an improvement topic in turn and selected personnel from different companies are brought together to work on that topic for a short period of time. The NPS Promotion Office directs live training and exercises through practical workplace improvement activities and having the improvement team participate. These sessions are conducted twice yearly to create an environment that facilitates the performing of routine work.

3. **First-principles diagnosis using 5S and 3Tei**

These sessions are conducted twice yearly to create an environment that facilitates the performing of routine work.

The NPS Promotion Office provides guidance to these sessions to consider not only safety but also the flow of materials and movement of workers so as to make visible the way work is performed or any waste in the operation of the plant.

The Office also helps group companies learn from each other by disseminating case studies of actual improvements.

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*5S: Seiri (neatness), Seiton (order), Seiso (cleanliness), Seiketsu (hygiene), and Shitsuke (discipline)

*3Tei: Tei (fixed direction), Teihin (fixed product), Teiryo (fixed quantity)
In 1961, Zeon Kasei Co., Ltd. was established based on Manufacturing Products Division of Zeon. The company, as a leading company in the fields of manufactured products within Zeon group, has grown with businesses that include plastic compounds, packing materials, housing materials, films, thermal conductive materials and deodorizer. The company acquired Zeon Logistical Materials Co., Ltd. which manufacture and sale STEC® returnable and foldable container in July 2009. Zeon Kasei intends to contribute to society with Ecology and Amenity as its keywords.

New thermal conductive sheet improves recycling process

Our product TIMF Sheet (Thermal conductive sheet) is used for solution of heat problem of electric devices. Last year, we succeeded in developing new product that is useful for improving recycling process of electric devices. Customer put a high value on our new product. STEC® Aluminum frame type (Light Container) we have developed a new type of STEC® that uses aluminum frame and is significantly lighter than the previous steel frame, for retaining similar strength. The new product helps customers to reduce workloads and to improve work efficiency because it is 10kg lighter than our existing light type, STEC® NL.

Zeon Kasei Co., Ltd.


corporate
governance

As part of a program amongst all companies in the ZEON group to implement internal controls, ZEON Medical has continued to formulate and review the standards and rules that cover its basic business activities.

Corporate governance

As part of a program amongst all companies in the ZEON group to implement internal controls, ZEON Medical has continued to formulate and review the standards and rules that cover its basic business activities.

Environment and Safety Activities

Reducing the burden on the environment

Energy conservation trend charts are used to track monthly electricity usage at Takaoka Plant as part of efforts to save energy. The volume of waste from the plant is also tracked by month to reduce the amount produced.

NPS activities

In November 2007, Takaoka Plant became a member of the NPS (New Product System) Association derived from Toyota production methods. Instruction meetings are held in the plant each month to always improve production practices based on the principle of “improving the efficiency of operation” by “eliminating all waste”.

The three basic principles of improvement through NPS are: (1) Define standards (ways of distinguishing between what is right and wrong), (2) Organize the flow (coordinate timings), and (3) Establish standard procedures (standardize work practices). The aim of these principles is to reach the “desired outcome”. The NPS concept is to make improvements by making problems visible and applying the PDCA (plan-do-check-act) cycle relentlessly to all processes as part of day-to-day work through adherence to these principles in a way that also leads to personal growth. This year, NPS activities have been extended beyond the plant and have been initiated in development and administration departments also.

Corporate governance

As part of a program amongst all companies in the ZEON group to implement internal controls, ZEON Medical has continued to formulate and review the standards and rules that cover its basic business activities.

Zeon Kasei Co., Ltd.


Zeon Kasei Co., Ltd.

Company Profile

- **Name:** Zeon Kasei Co., Ltd.
- **Established:** October 1, 1981
- **Capital:** 492.55 million yen
- **No. of Employees:** 452
- **Head office:** 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0051 Shin Marunouchi Center Building
- **Tel:** 03-5208-5111 **FAX:** 03-5208-5290
- **Locations:** Ibaraki Plant (Ibaraki Zeon Kasei Co., Ltd.), Yamaguchi Plant, Osaka Office.
- **Main business:** Plastic compounds, Packing materials, Housing materials, Films, Thermal conductive materials, Deodorizer, and yacht materials (STEC®)

Promote industrial safety and health act with faith

We will promote industrial safety and health act with faith through all stages of the improvement of equipment or the change of production process, for achieving “Zero Accident” reflecting on the works’ accident occurred in 2008.

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Activities with the Local Community

Ibaraki Plant disaster training

The Ibaraki plant held a disaster training on October 27, 2009, in cooperation with the Bandai Fire Station. Fire drill had been done by good team work.
ZEON Polymix Co., Ltd.

ZEON Polymix Co., Ltd. was established as Kinki Rubber Processing, Co. Ltd. in 1967 in order to expand into the carbon black market (CM) field as a part of ZEON’s rubber business development. In 1989, it merged with Hijashi Rubber Processing Co., Ltd. and changed its name to ZEON Polymix Co., Ltd.

The CM produced at ZEON Polymix is used widely, particularly in automotive parts but also in industrial equipment, office equipment parts, and lifestyle and leisure products.

Kawagoe Plant: "Strengthening our 3S and 3Tei Activities"

Kawagoe Plant undertakes 3S and 3Tei activities aimed at reducing process problems and customer claims, reducing the time required for stocktaking, and improving performance on inventory levels. Based on the 2009 President’s strategy of “strengthening our 3S and 3Tei activities”, Kawagoe Plant is working on eliminating quality claims and process problems through 3S and 3Tei activities and by making problems visible.

Contamination is one cause of claims and process problems. We started by reviewing how we manage materials storage in the belief that preventing contaminants from entering into the production line is important. We established mechanisms for seeing at a glance the location and quantity of required raw materials and ensured that we kept our storage areas clean and tidy so that we could rely on materials being available at any time of the day.

We received much gratitude from local residents for our involvement in volunteer activities such as cleanup programs for Lake Biwa and the area around the plant and the local cemetery.

We are convinced that we can reduce claims and process problems by making 3S and 3Tei part of our standard practice. This approach also has the benefit of reducing the time required to perform stocktaking at the end of each period.

We intend to continue reducing claims and process problems through rigorous process management.

Otsu Plant: Living Together with the Local Community

Because Otsu Plant is located near Lake Biwa, the largest lake in Japan, it operates in accordance with the environmental protection ordinances set by Shiga Prefecture and Otsu City. This section introduces some of the activities that Otsu Plant undertakes to help it coexist with the local community.

In order for a company to achieve ongoing development, it must be trusted by the local community. This year, Otsu Plant is actively expanding its activities with “active contribution to society outside the localities” a top priority issue.

In a new initiative for Otsu Plant, three students from the local technical high school were invited to make thin-panel televisions use less electric power. We also strive to reduce resource and energy use in the production process to make ourselves an environmentally friendly plant.

The ZEONOR® film® produced by our section helps reduce power consumption in thin-panel televisions. The production process also helps make thin-panel televisions use less electric power. We also strive to reduce resource and energy use in the production process to make ourselves an environmentally friendly plant.

To turn this slogan into reality, we have undertaken back-to-basics activities and have set ourselves specific targets in the form of short-term business objectives and medium-term business objectives based on each year’s President’s strategy. The slogan involves specific activities aimed at achieving targets that are friendly to the environment using distinctive technology that is not copied from elsewhere and that our rivals cannot imitate. The slogan is "To make an extensive contribution to the world by producing distinctive products that are friendly to the environment using distinctive technology that is not copied from elsewhere and that our rivals cannot imitate".

Company Profile

- **Name**: Otsu Plant
- **Established**: April 7, 1967
- **Capital**: 240 million yen
- **No. of Employees**: 36
- **Head office**: 3-14-1 Kamikusa, Kawaama-cho, Nisgun, Sahama Prefeclure 530-0152
  - **Tel**: 049-297-0715 **Fax**: 049-297-8451
- **Locations**: Kawagoe Plant, Otsu Plant
- **Main business**: Synthetic rubber CM (semi-finished rubbers supplied to manufacturers of auto parts and other molded and processed rubber products), polymer healing

Weeding

Site Report

Local Community Engagement with society

Site Reports

Environmental action

Announcement

CSR Report

Employment with society

Consideration for the Environment

The plant at the Himi Production Division established in 2007 was constructed based on consideration for global warming and environmental protection from the design phase. The wind turbine was installed to remind all employees of the importance of energy.

Environment and Safety Activities

To make an extensive contribution to society outside the localities, the plant has undertaken a number of activities to benefit the local community.

Participation in volunteer cleanup program for the local Himi waterfront (June)

110 employees participated in a volunteer cleanup program for the local Himi waterfront. Encouraged by words of thanks from the Himi City Mayor, we intend to continue building good relationships with the local community.

*The ZEONOR® film® produced by our section helps reduce power consumption in thin-panel televisions.*

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*The ZEONOR® film® produced by our section helps reduce power consumption in thin-panel televisions.*
**Living Together with the Local Community**

**Sponsorship of the Yonezawa Sun Lantern Festival**

Company employees and their families have been participating in Yonezawa’s traditional winter Yuki Doro (snow lantern) festival since 1999 and each year the company also undertakes contract research work.

**Environment and Safety Activities**

- Award for excellent plant occupational health: The company received an award for excellent plant occupational health from the Okitama Labor Standards Association.
- Mental Health Training: Instructors from the Okitama public health center were invited to run the company’s first comprehensive mental health training.
- Various Safety Training: Safety awareness was strengthened by holding events such as forklift driving competitions and point and manifest checks by external instructors.

**Participation in local cleanup campaign**

We participated in a cleanup of the industrial district organized by the Hachimanbara Business Association and helped pick up litter.

**Contributing to society through manifest checks**

ZEON Chemicals Yonezawa processes industrial waste from other companies. Operating a manifest system is very important to check that the waste is processed appropriately and helps prevent illegal disposal. Accordingly, it is essential to continue operating this system.

**Company Profile**

<table>
<thead>
<tr>
<th>Name</th>
<th>ZEON Chemicals Yonezawa Co., Ltd.</th>
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<td>April 26, 1996</td>
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<td>No. of Employees</td>
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<tr>
<td>Head office</td>
<td>3-446-13 Hachimanpara, Yonezawa City, Yamagata Prefecture 990-1128</td>
</tr>
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<td>Tel</td>
<td>0238-29-0055 Fax: 0238-29-0053</td>
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<tr>
<td>Main business</td>
<td>Green note aroma chemicals produced from leaf alcohol, intermediate organic chemicals for pharmaceuticals and agrichemicals, and liquid compounds for reaction injection molding</td>
</tr>
</tbody>
</table>

**Green note aroma chemicals**

- Produced from leaf alcohol, intermediate organic chemicals for pharmaceuticals and agrichemicals, and liquid compounds for reaction injection molding.

**Resin with dicyclopentadiene**

- As its main component, it combines a strength equivalent to general-purpose engineering plastic with the high productivity of the reaction injection molding (RIM) method of production.

**Environmental Topics**

- By utilizing the characteristics of its resins, the company is actively expanding into environmental business.

**Electric vehicle**

- The entire body is made from PENTAM®; lighter weight means better environmental performance.

**Truck air deflector**

- VDC using IMO (simultaneous forming and painting)/Lower power consumption.

**Main applications for reaction injection molded products**

- Use in household fittings.

**Other CSR Activities**

- Passed regular ISO9001 audit (August)
- Passed regular ISO14001 audit (August)

**Living Together with the Local Community**

- Hanami (flower viewing) event with employees from affiliated companies and their families (April)
- Cleaning up around Takashima harbor (June)
- Participation in the summer festival run by ZEON Mizushima Plant (August)

**Contributing to society through manifest checks**

ZEON Chemicals Yonezawa processes industrial waste from other companies. Operating a manifest system clarifies which company is responsible for the waste and helps prevent illegal disposal. Accordingly, it is important to check that the waste is processed appropriately within the allotted time. We intend to continue operating this system.

**Company Profile**

<table>
<thead>
<tr>
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<th>RIMTEC Corporation</th>
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<td>Established</td>
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<td>No. of Employees</td>
<td>22</td>
</tr>
<tr>
<td>Head office</td>
<td>1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 (Shin-Marunouchi Center Building) Tel: 03-5220-8581 Fax: 03-5220-8584</td>
</tr>
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<td>Locations</td>
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</tr>
<tr>
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<td>Liquid compounds for reaction injection molding (RIM) using dicyclopentadiene as the main raw material, and components formed from these compounds using RIM</td>
</tr>
</tbody>
</table>

**Providing environmentally friendly molding liquid compounds and molded products**

- Resin with dicyclopentadiene as its main component combines a strength equivalent to general-purpose engineering plastic with the high productivity of the reaction injection molding (RIM) method of production.

**Environmental business**

- The company is actively expanding into the environmental sector.

**Company Profile**

<table>
<thead>
<tr>
<th>Name</th>
<th>RIMTEC Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established</td>
<td>August 1, 2003</td>
</tr>
<tr>
<td>Capital</td>
<td>490 million yen</td>
</tr>
<tr>
<td>No. of Employees</td>
<td>22</td>
</tr>
<tr>
<td>Head office</td>
<td>1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 (Shin-Marunouchi Center Building) Tel: 03-5220-8581 Fax: 03-5220-8584</td>
</tr>
<tr>
<td>Locations</td>
<td>Mizushima Plant</td>
</tr>
<tr>
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**Environmental business**

- The company is actively expanding into the environmental sector.

**Other CSR Activities**

- Passed regular ISO9001 audit (August)
- Passed regular ISO14001 audit (August)

**Living Together with the Local Community**

- Hanami (flower viewing) event with employees from affiliated companies and their families (April)
- Cleaning up around Takashima harbor (June)
- Participation in the summer festival run by ZEON Mizushima Plant (August)
**Environmental Activities**

- To help care for the world’s limited water resources, we are contributing to protecting and improving regional waterways by marketing and installing our PENTAM™ purification jokahoso to households.
- At ZEON Environmental Materials, reading through and discussing ZEO/N's 7 Articles is a compulsory item on the agenda at the start of each "Zenjo (general) meeting" and at the sales meetings held at each office.
- We are also proactive in checking that we are following compliance rules.
- KPS activities (we use the term "KPS activities" instead of NPS (new product system). The topics are as follows:
  1. Application for jokahoso subsidies... We are working on speeding up this process and eliminating rework.
  2. Formulation and follow annual activity plans.
  3. Sales staff have road safety as their top priority. We conduct these audits to improve staff behavior and compliance with the jokahoso laws and safety.
- Although the jokahoso assembly plant has been shut down, we collated a manifest of the industrial waste left behind after the shut down in accordance with the law and had it removed. Where possible, the waste was reused or recycled.

**5S Activities for Safety and the Environment**

- We formulate and follow annual activity plans.
- Sales staff have road safety as their top priority. We conduct these audits to improve staff behavior and compliance with the jokahoso laws and safety.
- Although the jokahoso assembly plant has been shut down, we collated a manifest of the industrial waste left behind after the shut down in accordance with the law and had it removed. Where possible, the waste was reused or recycled.

**Living Together with the Local Community**

- We joined forces with ZEON’s Minshima Plant to participate in a neighborhood cleanup campaign.
- Three employees participated in the Kojima Lake Catchment Cleanup Project held each September.
- We conducted internal audits when we carry out repairs to faulty jokahoso.

**Sales of Environmentally Friendly Products**

- One example of these environmentally friendly products is the reuse of plastic recycled from used automotive battery cases in the production of new battery cases. Tokyo Zairyo helps promote automotive recycling by acting as an intermediary between battery manufacturers and plastics recyclers and handles the sale of several hundred tons of recycled plastic each year.

**Relation of Employees**

- As well as being coordinator of the bowling tournament, I also took part myself and enjoyed a night out eating, drinking, and bowling. I ended up winning the women’s section and even received a wonderful prize. It was a very refreshing experience!
Enviromental Activities

Wide range of environmental support activities for customers

ZEON Yamaguchi’s analytic business supports the environmental activities of ZEON’s Takaya Branch by analyzing boiler waste gas and plant waste water, and by performing soil analysis for on-site building work. Externally, the company supports the environmental activities of government and local businesses and helps them reduce environmental impacts. This includes being commissioned by national or local government to undertake environmental monitoring of building work, including noise and vibration testing work and testing the water quality of lakes, wetlands and the ocean. The company also performs analysis and measurement of air, odors, water, soil, noise, vibration and other environmental factors for the business activities of local companies.

Activities aimed at recycling

ZEON Yamaguchi’s building division sorts reusable materials such as asphalt, timber and aluminum so that they can be recovered by designated operators. Similarly, the analytic division returns empty reagent bottles that were previously treated as waste to their manufacturers for recycling.

Noise and CO2 reduction activities

To help prevent noise pollution affecting nearby residents, the logistics division is working on improving the sound of its warning alarms and ensuring compliance with driving rules that cover things like the sudden movement, acceleration, or stopping of its trucks and lorry cars. It is also investigating changing the lorry cars used on the site to battery power as a way of reducing CO2 emissions.

Living Together with the Local Community

Activities to support the local environment

Together with the ZEON Tokuyama Plant, employees volunteered to be part of the cleanup campaign for the Higashi-gawa river that runs near the plant. Another activity that supports the local environment was to substitute the cost of testing swimming pools, bathing pools from hot springs and inns in eastern Yamaguchi.

Wholeheartedly! Contributing to society through team play!

We are working to make a contribution to society by helping all company employees in a cheerful way with our motto that “wholeheartedly is the way to go”.

Environmental and Safety Activities

ISO9001 and ISO14001 accreditation

ZEON Yamaguchi obtained accreditation for both ISO9001 and ISO14001 in January 2007. Every year, each department formulates environmental and quality policies along with targets based on these policies and carries out improvement activities.

We intend to continue to maintain and strengthen our environmental and quality management systems to help protect the environment while carrying out engineering work and supplying products and services that meet our customers’ needs.

Promoting safety awareness

Twice yearly, ZEON Yamaguchi holds an occupational health and safety conference with associated companies to improve the safety awareness of all staff who work on site. We work together with these other companies to build a safety culture so as to achieve our goal of zero accidents and injuries.

Environmental Topics

(1) ZEON North designs, manufactures, and markets aluminum heat retention furnaces that use environmentally friendly energy-efficient burners (regeneration burners).

The system achieves a significant reduction in CO2 emissions by using a low-NOx regeneration burner that recovers nearly 90% of waste heat and maintaining a uniform furnace temperature by turning combustion on and off for short periods.

(2) ZEON North was established as a subsidiary of ZEON in April 1972.

It merged with Daisan Kosan, an affiliated company, and the ZEON Takaoka Analysis Center, a ZEON subsidiary, to extend its operations to cover product sales, engineering, machinery sales to the aluminum industry, and environmental analysis businesses. The company runs a distinctive business that utilizes the technologies and personal connections built up over time, along with the advantages of its Hikuriku (northern) location.

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(2) As a registered environmental measurement agency under Japanese measurement law, ZEON North is involved in survey and analysis work on regional environmental problems (effect of toxic substances and other pollutants).

Encouraging Compliance with Regulations

We participated in a local beautification program along with ZEON’s Takaoka Plant.

We participate every year in a fire fighting drill organized by the Takaoka fire department.

We participated as part of the ZEON Group in the ‘Oshii Hiki’ Takaoka Castle-building Festival celebrating the 400th anniversary of the founding of Takaoka city.

Aiming to achieve a user-friendly workplace through full adoption of 3S

We are working actively to improve our workplace environments through the promotion of the 3S in keeping with the priority issue identified in the President’s policy of “working closely with affiliated companies on 3S and taking a rigorous approach to environmental and safety activities”.

Aiming to achieve a user-friendly workplace through full adoption of 3S
Zeon Chemicals L.P. (USA)
Zeon Chemicals L.P. was established in 1989 from the purchase of the BF Goodrich Elastomers Division combined with the new Zeon HNBR facility in Pasadena, Texas. ZCLP manufactures Nipol® NBR, HyTemp® ARI (Acrylic Rubber), Zetpol® (HNBR), Hydrin®, and Zeotherm® polymers in North America. ZCLP also provides sales and market development support in North America for the Cyclo-olefin polymers, Styrene Isoprene Block Polymer, Reaction Injection Molding, and Electronic materials. ZCLP also includes Zeon Brazil, a wholly-owned subsidiary serving South America. ZCLP has grown steadily since 1989 and has renewed the growth effort through the implementation of our Zeon Innovation Process (ZIP) to drive new product development and new applications for Zeon polymers.

Environmental and Safety Activities
The Louisville district in Kentucky has adopted the STAR Program® which has some of the most stringent standards of any regime in America for preventing atmospheric pollution. Zeon’s Kentucky Plant has spent the last few years striving in a systematic way to reduce emissions of pollutants into the atmosphere, and in doing so has achieved considerable reductions. In the final stages of this work, the plant has installed a new type of thermal oxidizer that is able to reuse its emissions control system of the powdered resin dryer. This will reduce emissions of acrylonitrile, butadiene and styrene.

Living Together with the Local Community
The Kentucky Plant participates in cleanup programs for picking up trash from surrounding streets in cooperation with other neighboring chemical plants. The plant is also actively involved with members of the local community who live nearby in running community cleanup programs for parks, adjacent streets, and other locations around the factory.

Focus on the customer and the environment
We are committed to providing our customers with quality products and solutions, while being a responsible member of our community. While plant productivity has increased, we have also demonstrated a consistent record of significant reductions in plant emissions each year through continual improvement efforts and the use of new technologies.

Zeon Chemicals Europe Ltd. (United Kingdom)
2009 is the 20th anniversary of the establishment of Zeon Chemicals Europe Ltd. The synthetic rubber manufacturing plant was purchased from BP Chemicals in 1989 and is Zeon’s only manufacturing site in Europe. Nitrile rubber and Zeoforte® are produced at the plant in South Wales.

Environmental and Safety Activities
Zeon Chemicals Europe Ltd. has held ISO 14001 since 1999 and continues to work towards reducing its emissions to the atmosphere, land and sea in line with the UK government’s IPPC Regulations. Recent focus has been on reducing waste volume by dewatering the waste before sending it to landfill. The target is to reduce waste volume by more than 70%.

Safety and Training
An electronic system for authorising engineering work on the plant is being introduced. This gives a more systematic approach to removing risks and making sure work is done in a safe manner.

Many new training programmes have been successfully established over the last few years including training packages on the company Intranet to help employees use their computer more effectively. Employees are encouraged to use computer based systems to report plant issues and unsafe practices so that they can be quickly and efficiently resolved.

Resource and Energy Saving
Since 2008 there has been a concerted effort to reduce energy and water usage on the plant. By recycling water a saving of up to 25% in unit water consumption has been realised. Steam and air leaks around the plant have been repaired during 2009. A yearly saving of over $30,000 in electricity costs has been seen by identifying and repairing air leaks. This all goes to reduce CO2 emissions.

Living Together with the Local Community
Employees of Zeon Chemicals have been working with a local school through the Engineering Education Scheme Wales. The students ran a project for a dust extraction scheme for the plant. The project was presented to judges from local Engineering Sectors who placed the students second out of 79 teams in the ‘Best appreciation of Safety’ category.

5S – Making ZCEL Profitable
5S is being used to improve safety, the environment, quality and productivity in order to improve the profitability of the company and the welfare of the employees.

Operations Director
Martin Davies
Environmental and Safety Activities

Safety and Environmental Management System

As the result of best cooperation and effort of management and employees since November 2007, we established two quality management systems, which are “The Occupational Health & Safety Management System (TIS / OHSAS 18001:2007, date of registration was July 1st)” and “The Environmental Management System (ISO 14001:2004, date of registration was September 11th)”, in 3rd quarter of Y2008. 

We continuously maintain and improve our safety & environmental management system, such as training, hazard identification, risk assessment in the company, environmental evaluation, creating standard working procedures, etc.

999 Days without lost working day

On May 2009, we reached one of our important target “999 days without lost working day” that means we’d never had serious patient absence from accidental in process for about 3 years (”9” is a lucky number in Thailand.)

Living together with the Local Community

CSR Activities

For participation and living together with local community, we joined the project with neighbor companies to donate supplies to students in many schools. Besides that, we’ve been doing various CSR activities such as blood donation every 3 months, and a member of Safety & Environmental Club in the industrial estate such as blood donation every 3 months, and a member of Safety & Environmental Club in the industrial estate for promoting safety and environmental program to point any pollutant effect from industries that may occur to public or environment.

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Safety & Environment are our Life & Home

Industrial development should grow together with safe working, environment, and community. Cause of safety and environment are our life and home.

Warisa Siripratoom
Health & Safety Manager

Zeon Advanced Polymix Co., Ltd.

Zeon Advanced Polymix is part of ZEON’s global rubber business and its primary business is the supply of carbon master batch for use in automotive parts from its base in Thailand.

Living together with the Local Community

• With the aim of taking an active role in the community, we made donations of 47,900 baht during 2008 including donations and supply of old computers to local government, and presentation of stationery to neighboring elementary schools.

• We planted ten trees at a neighboring elementary school to mark National Children’s Day held on the first Saturday of January.

Health Management

• To help keep our employees healthy, we hold aerobics training twice a week before work starts under the direction of a company instructor.

Safety

• A Safety Week was held during November. To improve awareness of safety, we invited local government, police, and neighboring companies to a presentation on safety and the environment at which employees from each section ran booths.

We have formed a new CSD (Customer Service Department).

The new department provides users with a point of contact for product quality issues.

Naruemon (right) Jintana (left)
## Environmental Data

### ZEON Corporation

#### Yakkoaka Plant

<table>
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<th>Toxic substances</th>
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#### Kawasaki Plant

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### Overseas Affiliated Group Companies

#### ZEON Polyolefin Co., Ltd. Osaka Plant

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Third Party Opinion

“Reading of the ZEON Corporation CSR Report”
Hitoshi Okada (Dr. of Engineering/Professional Engineer)
Senior Researcher
Institute for Environmental Management Accounting

Graduated in 1979 from the Graduate School of Engineering at Osaka University. Graduated in September 2006 from the Graduate School of Business Administration at Kobe University specializing in business administration (a professional graduate school for mid-career education). Part-time lecturer at Osaka Gakuin University, Ministry of Economy, Trade and Industry in 2009 to a committee investigating how to “encourage more efficient use of resources in supply chains”.

While undertaking research into corporate misconduct, CSR, compliance, business theory, restructuring management and other fields as part of the doctoral course at the Graduate School of Business Administration at Kobe University, he also supports areas such as CSR management and the introduction of material and financial cost accounting.

CSR Objectives at ZEON Corporation
ZEON Corporation’s corporate mission is to “be a company that contributes to the preservation of the earth and the prosperity of the human race” and the basis of its business is a business strategy that realizes a sustainable and steadfast technology organization that cannot be duplicated by its competitors, and the range of products supported by this technological base. This range of products includes many that contribute to protecting the global environment and some have been described as environmentally friendly products. As noted in the President’s Message, ZEON Corporation aims to “operate our business in a way that is kind to the global environment” and the company views contributing to society through its business activities as a key part of its CSR activities.

Although contributing to society through a company’s core business should be given due respect as an important part of CSR, it is also important that a differentiation is made in the company’s CSR activities between the “core business itself” and the “contribution to society made through core business”. If the significance of CSR is made clear in this “contribution to society made through the core business”, then an even stronger message can be conveyed both inside and outside the company. I look forward to seeing more information in future reports about the setting of targets and the results of activities aimed at achieving these targets associated with this “contribution to society made through the core business”.

Environment, Safety, and Relationship with Employees
As a company that deals with chemical substances, ZEON Corporation has excellent and effective management for its environmental and safety activities, including formulating a safety philosophy and a Responsible Care policy. ZEON Corporation’s Responsible Care Act makes it clear that the company will be considered as having contributed to society if it can demonstrate a high level of achievement. It is to be hoped that future plans will include explicit numeric targets wherever possible.

Dialogue with Stakeholders
ZEON Corporation runs plant visits that are attended by a large number of analysts. These are continued primarily at the Livio Production Center which acts as a base for “monomark” (manufacturing ethos) within the company. The site reports received in this CSR report indicate that the company has made an active involvement with the local communities in the areas where it operates. In terms of communication with employees, management maintains an active dialogue with plant staff with the number of site visits by the President increasing each year. This indicates a high level of dialogue with stakeholders. Improving its relationship with stakeholders is very important for ZEON Corporation. It is by conducting an active dialogue in this way that the company can identify the issues that are important to society and apply itself to resolving these issues. It also permits the company taking the initiative in establishing bi-directional communication with stakeholders in the future.

Response to Third Party Opinion
Seiichiro Okada
Executive Officer and Director with Responsibility for CSR

The Responsible Care Activity Report published by ZEON Corporation was renamed the CSR Report to coincide with the decision to operate the business with an emphasis on CSR that was one of the core policies in the company’s 2005-2007 3-year mid-term management plan. This is the fourth year that a CSR Report has been published. Although business conditions have been very difficult since fall of last year, it is even more important in times like these to keep CSR in the forefront of our minds as we go about our business. Enhancements to the 2009 CSR Report include: [1] expanding the section of the report that deals with activities related to securing the future and the confirmation of the list of a CSR report, [2] expanding the employee message items that were introduced in the 2008 CSR Report, [3] including data from overseas affiliates in the environmental data section, and [4] making reference to production innovation, NPS, and similar activities.

Regarding the comments of Dr. Hitoshi Okada, Senior Researcher at the Institute for Environmental Management Accounting, he has previously conducted research on the CSR activities at ZEON Group and we are very pleased to note that CSR at ZEON Corporation was included in the ranking of the top 3 from a survey conducted by Ministry of Economy, Trade and Industry in 2009 to a committee investigating how to “encourage more efficient use of resources in supply chains”.

[1] Provide numeric targets for environmental and safety activities wherever possible, pursue these targets in a systematic way, and aim to conduct even more extensive activities that relate to society.
[2] In addition to existing activities associated with dialogue with stakeholders, also conduct bi-directional stakeholder dialogues.

ISO Certification Status for ZEON Corporation and Affiliates

Year | Activity Details
---|---
1994 | Takahashi Plant received ISO9002 certification
1995 | Toyokawa Plant received ISO9002 certification
1996 | ZEON declared that it would perform Responsible Care activities
1997 | Kawasaki Plant received ISO9002 certification
1998 | Mizushima Plant received ISO9002 certification
1999 | Kawasaki Plant received ISO14001 certification
2000 | Kawasaki Plant received ISO14001 certification
2001 | The main business departments received ISO9001 certification
2002 | The “Risk Management Rules” were established
2003 | The “Project for Promoting the Development of Energy Conserving Technology” was established
2004 | The “Project for Promoting the Development of Energy Conserving Technology” was established
2005 | The English version of the “Responsible Care Activity Report” was published
2006 | The “Compliance Textbook (Special)” was published
2007 | The basic policy for financial reporting was established
2008 | A part time work system to promote child care was introduced

ISO Certification Status for ZEON Corporation and Affiliates

Site | ISO9001 | ISO14001 | ISO13485
---|---|---|---
Takahashi Plant | | | |
Toyokawa Plant | | | |
Kawasaki Plant | | | |
Mizushima Plant | | | |
Tokyo ZEON Co., Ltd. | | | |
Tokyo Shangai Co., Ltd. | | | |
Tokyo Minamikagami Co., Ltd. | | | |
Core operating departments | RMTEC Corporation | | |
Specialized departments | | | |

Certificate Status for ZEON Corporation

Site | ISO9001 | ISO14001 | ISO13485
---|---|---|---
ZEON Korea Co., Ltd. | | | |
ZEON Polyex Co., Ltd.* | | | |
The Optronic Co., Ltd. | | | |
ZEON Chemicals Yunesaka Co., Ltd. | | | |
Core operating departments | RMTEC Corporation | | |
Specialized departments | | | |

Certificate Status for Affiliated Group Companies

Site | ISO9001 | ISO14001 | ISO13485
---|---|---|---
ZEON North Co., Ltd. | | | |
ZEO Chemicals (Taiwan) Co., Ltd.* | | | |
ZEON Automotive Co., Ltd. (SAF) | | | |

*1: Certification for logistical materials department is for STEC section only.
*2: Excluding logistical materials department.