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.

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ZEON Corporation’s 3-year mid-term management plan known as PZ-3 which commenced in 2005 acknowledged the importance of CSR*1 (Corporate Social Responsibility) and the company is working to establish and spread CSR principles across the entire ZEON group.

The final year of the three-year plan, 2007, saw a focus on making “quality improvement” a key pillar within the company’s CSR activities. Quality at ZEON Corporation means more than just product quality and the company is working to improve the quality of all of its activities. Flexible structures and mechanisms allow us to satisfy the demands and expectations of shareholders and other stakeholders*2 associated with the ZEON group, while continuing to contribute to a wider society through our core areas of business.

September 2008

Report Policy
This activity report was created in line with the following basic policy.
(1) The number of photographs and comments from individuals were increased to enhance the message conveyed to employees.
(2) We will commission an independent verification by the JRCC (Japan Responsible Care Council) to receive an evaluation of Zeon’s activities from a third-party perspective.
(3) This activity report is issued annually.

Organizations Covered
ZEON and the following subsidiaries and affiliate are included

Overseas: ZEON Chemicals LP, USA, ZEON Chemicals Europe Ltd., UK, ZEON Chemicals Thailand Co., Ltd., (Thailand), ZEON Advanced Polymix Co., Ltd., (Thailand)

Period Covered
April 2007 to March 2008 (also includes some new information from April 2008 and later)

*1 CSR is an abbreviation for “Corporate Social Responsibility”.
*2 All parties with business interests or concerns associated with the ZEON group.
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Japan:

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April 2007 to March 2008 (also includes some new information from April 2008 and later)

*1 CSR is an abbreviation for "Corporate Social Responsibility".
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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.

The management of ZEON made a strong and public commitment to CSR in our 3-year mid-term management plan for 2005 to 2007 (PZ-3) and we have been working to improve corporate value. This philosophy has been carried over emphatically to our new three-year plan.

As we approach the 60th anniversary of our founding in 2010, we have established a new three-year plan entitled "Innovation ZEON-60 (IZ-60)". The plan positions us as a 'chemical company able to contribute to society by supplying products that delight our customers around the world in a speedy manner' based on advanced innovation.

With an awareness that companies are social organizations and based on our obligations as a manufacturer to take CSR seriously, ensure compliance with regulations and put safety first, our aim is to manufacture products and operate factories in an environmentally friendly manner so as to build value that will delight both the general public and our customers.

To help sustain the global environment, our corporate mission is to contribute to society by "being a company that makes a positive contribution to the preservation of the earth and the prosperity of the human race" through products that help the environment by being energy efficient, solvent-free, and with reduced environmental risks.

Some specific examples of this from one of our key products, synthetic rubber, include the development of rubber for fuel-efficient tires and improvements in the performance of functional rubbers that help deliver better engine combustion efficiency.

The development of synthetic rubber latex suitable for use in gloves that eliminates the problem of protein allergy that was a problem with conventional gloves produced using natural rubber latex is an example of a product that helps people. Similarly, the excellent low-temperature adhesion performance of our "Zeoglobule" polymerized toner helps reduce power consumption 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 in applications such as in medical containers and equipment and in the substrates for organic EL, the next-generation energy-efficient lighting technology described at the Toyako Environmental Summit.

"ZEONOR Film" received the "Second Monodzukuri Nippon Grand Award" awarded by the Minister of Economy, Trade and Industry and this ground-breaking new method of producing optical film by molten extrusion without the use of solvents has made a significant contribution to the environment. Similarly, products such as the "Zeorora" semiconductor etching gas that won the Stratospheric Ozone Protection Award in the US also help mitigate environmental risks.

The factories that produce these products operate safety and securely and undertake Responsible Care activities so that the public and our customers can have even more confidence in ZEON than in the past.

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 meet the demands and expectations of all our stakeholders, including the local community, customers, and shareholders, by maintaining fair business practices and conducting our business in harmony with the local community and the general public, and fulfill our corporate mission to "make a positive contribution to the preservation of the earth and the prosperity of the human race".

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

September 2008

Naozumi Furukawa
President and CEO

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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 makes an important contribution to society with unique technology

ZEON boasts a world-beating range of products including special 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 etching gases that do not harm the ozone layer and lightweight, transparent cycloolefin polymer resins.

At ZEON, we strive for innovative and revolutionary new technology and continuous improvement in our core strengths. Our ultimate aim is to establish a leading presence in society.
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Corporate Philosophy and CSR Strategies

"ZEON will contribute to the preservation of the Earth and the prosperity of the human race."

The company as a social organization

A company that is trusted by society and of which its employees can be proud.

**ZEON’s 7 Articles**

**Article 1** ZEON embraces corporate ethics and acts as a socially responsible organization.

**Article 2** ZEON values the environment and safety.

**Article 3** ZEON contributes to society with innovative technology.

**Article 4** ZEON delivers products that satisfy the customers.

**Article 5** ZEON values an organization that makes the best use of individuals.

**Article 6** ZEON overcomes challenges through full participation and distributes the benefits fairly.

**Article 7** ZEON values speed of decision-making and delivery date of work.

Environment Philosophy and 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.

*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 to enact full accident prevention countermeasures, and provide education and training for all employees to prevent safety and environmental accidents.
2. Collect and distribute the latest information on chemical products
   - We will collect, store and manage the latest information required for the appropriate handling, use and disposal of chemical products, and distribute this information to employees and users.
3. Minimize the discharge of toxic chemicals and waste
   - We will work to reduce the discharge of 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.
5. Take the environment and safety into account when developing new processes and products and performing quality assurance
   - We will perform thorough environmental and safety evaluations from the initial stages of research, develop technology and products that take the environment and safety into account, and work to maintain and improve the quality of our technology and products.
6. Live together with society
   - We will strictly observe regulations related to the environment and safety, whether the regulations come from the local community, the national government, overseas, or organizations to whom we belong. While cooperating in these activities, we will work to enhance our communication with the local community and society in order to receive a better understanding of ZEON’s activities and further strengthen the trust that society has in our company.
7. Perform continuous improvements
   - We will continuously improve our environment safety management and technology by operating a Responsible Care Audit, a Safety Management System, an Environment Management System based on ISO14001, and an Occupational Health and Safety Management System.

*Responsible care
Activities undertaken voluntarily by companies involved with chemical substances to maintain the "environment, safety, and health" in all processes from the development of chemical substances through to their production, distribution, use and disposal, and to make public the results of these activities and enter into dialogue and communication with the public.
CSR Strategies

Corporate Philosophy and CSR Strategies

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Environment Philosophy and Safety 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.

ZEON’s 7 Articles

Environment Philosophy

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+5S: Seiri (neatness), Seton (order), Seishu (cleanliness), Seiketsu (hygiene), and Shitsuke (discipline)

* Responsible Care
Activities undertaken voluntarily by companies involved with chemical substances to maintain the "environment, safety, and health" in all processes from the development of chemical substances through to their production, distribution, use and disposal via their ultimate end use, and to make public the results of these activities and enter into dialogue and communication with the public.
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 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.

Corporate Governance and Internal Controls

Seeking to be a “company trusted by all stakeholders”, we are committed to thoroughly implementing compliance management.

Internal controls system

A “Basic Policy for Implementing an Internal Controls System” was authorized at the directors’ meeting on March 26, 2008 based on subsequent progress in implementing the internal controls system. In accordance with this basic policy, a “corporate governance and internal controls system” was created and activities are underway throughout the ZEON Group aimed at ensuring rigorous risk management and compliance with regulations.

Introduction of the operating officers structure

The operating officers group structure was set up on June 28, 2007 in a bid to improve management efficiency and speed up executive 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. These include the “Risk Management”, “Compliance” and “Anti-trust Compliance” committees that were set up under the “Crisis Management Conference” chaired by the President, and also the “Security Export Control” and “Internal Control” standing committees of the Crisis Management Conference which were added in 2007 and 2008 to strengthen further the risk management and compliance system.

1. The Crisis Management Committee is responsible for controlling potential risks and handling actual incidents when they occur. The Committee dealt with such incidents in 2007 and preventive measures were put in place. The internal reporting system was utilized for some of these incidents.

2. The Compliance Committee is the body in charge of education, training and auditing activities to prevent violations of laws and regulations. In 2007, numerous training sessions were held covering compliance in various workplaces and a (second) e-learning based test of understanding of compliance issues was carried out. It aims to increase further the awareness of compliance issues amongst the ZEON Group executives and employees.

3. 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 Group. Numerous price changes were made during 2007 in response to the rising cost of oil, and the committee performed strict assessments of these changes before they were put in place.

4. 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 2007 included dealing with amendments to the Export Trade Control Ordinance and change procedures for internal company rules.

5. Internal Control Committee (started in June 2008) aims to establish and review internal controls relating to financial reporting and administer the company’s internal report regulated by the Financial Instruments and Exchange Law.
Our Basic Philosophy Regarding Corporate Governance

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In accordance with this basic policy, a corporate governance and internal controls system was created and activities are underway throughout the ZEON Group aiming at ensuring continuous risk management and compliance with regulations.

Introduction of the operating officers structure

The operating officers group structure was set up on June 28, 2007 in a bid to improve management efficiency and speed up executive operations.

Internal controls system

The crisis management committee is responsible for controlling potential risks and handling actual incidents when they occur at the company, as well as implementing measures to prevent its recurrence. The committee dealt with such incidents in 2007 and preventive measures were put in place. The internal reporting system was utilized for some of these incidents.

The Compliance Committee is the body in charge of education, training and auditing activities to prevent violations of laws and regulations. In 2007, numerous training sessions were held covering compliance in various workplaces and a (second) e-learning based test of understanding of compliance issues was carried out. It aims to increase further the awareness of compliance issues amongst the ZEON group executives and employees.

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ZEON’s Risk Management / Compliance System

A “Basic Policy for Implementing an Internal Controls System” was authorized at the directors’ meeting on March 26, 2008 and a decision to add the policy was made at the directors’ meeting on March 26, 2008 based on subsequent progress in implementing the internal controls system.

In accordance with this basic policy, a corporate governance and internal controls system was created and activities are underway throughout the ZEON Group aimed at ensuring continuous risk management and compliance with regulations.

Introduction of the operating officers structure

The operating officers group structure was set up on June 28, 2007 in a bid to improve management efficiency and speed up executive operations.
Management Policy and Systems

CSR Promotion Organization

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 System

President

CSR Promotion Organization

CSR Team

Risk Management Committee

Compliance Committee

Environment & Safety Affairs Department

Corporate Governance Committee

Corporate Communications & Public Affairs Group

Quality Assurance Department

Legal Department

Meetings

Risk Management Meeting

Chairman: President

Discussions and decision-making concerning the progress reports from the five committees (Risk Management, Compliance, Anti-trust Law Regulatory Committee, Export and Security Control Committee and Corporate Governance Committee).

Environment and Safety Promotion Meeting

Chairman: President

Discussions and decision-making concerning company-wide policies and actions on the environment and safety.

PL Meeting

Chairman: President

Discussions and decision-making concerning fundamental, company-wide items related to chemical safety and product liability.

Environment and Safety Meeting

Problem assessment, planning, reporting and proposals related to the environment and safety.

Plant Safety and Environment Meeting

Discussion and decision-making concerning plant environment and safety.

PL Countermeasure Meeting

Planning, discussion and reporting on specific policies and countermeasures related to chemical safety and product liability.

Audits

Company-wide Audits

(1) Review by top management (once a year)
(2) Responsible Care audit (once a year)
(3) PL audits of operational departments and affiliated group companies (once a year)
(4) Voluntary safety audit
(5) Special audit by the head of the Safety Environmental Affairs Department
(6) Plant technology audit

Internal Plant Audits

(1) Review by plant manager and Environment ISO internal audit
(2) Quality ISO internal audit

Social Activities Performance

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 2007. In addition to a review of financial results, these involved top management reporting on progress on PZ-3, our 3-year medium-term management plan.

In October 2007, ZEON held a factory inspection tour based at our new optical film production facility that had recently been completed (in September) at Himi in Toyama Prefecture. The tour was attended by 47 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 and display panels and other presentations showing actual commercial products or models of products that use our manufactured goods.

On our web site, we have also posted a video of the progress report on our PZ-3 3-year medium-term management plan that was presented at the analyst briefing sessions. (Currently we are showing an explanation of our new IZ-60 3-year medium-term management plan that was announced in May 2006.)

During April 2008 we went on-line with an upgrade to our web site that features a new shareholders’ meeting page in the IR Information section of the site. The new page includes video of the reporting part of the annual general meeting.

Comprehensive upgrade to our web site goes on-line with a strong emphasis on CSR

Living as we now do in a world where use of the internet is part of our daily lives, the new site introduced a design that was devised based on looking at the site from a user's perspective and produced with an emphasis on “accessibility” (whether the web site is able to be used by as many people as possible including the elderly and disabled) and “usability”. The fully upgraded site went on-line on April 1 2008.

A typical example of how accessibility was considered in the design is a feature whereby the text on the site can be switched between either standard or enlarged size to ensure readability.

To improve usability, representative images have been included to indicate the category of information and to help the user recognize which part of the site they are looking at. Also, the navigation and other assistance that appears on the right of the screen is hidden when printing to ensure the printout can fit on A4 size paper, and a print button has been added on those pages that users are most likely to print.

Whereas our previous web site was limited to posting our CSR report (as a PDF file), the new upgraded site includes a new CSR activities section that summarizes our CSR activities with separate pages covering our CSR Strategy, Environmental Philosophy and Safety Philosophy, CSR Framework, Eco-friendly Product Development, and Quality Assurance Mechanisms.
CSR Promotion Organization

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CSR Promotion System

President

CSR Team

Corporate Communications & Public Affairs Group

Environment & Safety Affairs Department

Quality Assurance Department

Legal Department

Risk Management Committee

Compliance Committee

Anti-trust Law Regulatory Committee

Export and Security Control Committee

Corporate Governance Committee

Meetings

Risk Management Meeting (twice a year)
Discussion and decision-making concerning the progress reports from the five committees (Risk Management, Compliance, Anti-trust Law Regulatory Committee, Export and Security Control Committee and Corporate Governance Committee)
Chairman: President

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

PL Meeting (twice a year)
Discussion and decision-making concerning fundamental, company-wide items related to chemical safety and product liability.
Chairman: President

PL Countermeasure Meeting (twice a year)
Planning, discussion, and reporting on specific policies and countermeasures related to chemical safety and product liability.

Environment and Safety Meeting (four times a year)
Problem assessment, planning, reporting and proposals related to the environment and safety.

Plant Safety and Environment Meeting (every month)
Discussion and decision-making concerning plant environment and safety.

Audits

Company-wide Audits
(1) Review by top management (once a year)
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(6) Plant technology audit

Internal Plant Audits
(1) Review by plant manager
(2) Environment ISO internal audit
(3) Quality ISO internal audit

Environmental & Safety Promotion Organization

1. Conserve resources and energy
2. Reduce discharges of toxic chemicals
3. PL audits of operational departments and affiliated group companies (once a year)
4. Voluntary safety audit
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Communication with institutional investors and analysts

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Social Activities Performance

Relationship with Shareholders and Other Investors

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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 and display panels and other presentations showing actual commercial products or models of products that use our manufactured goods.

On our web site, we have also posted a video of the progress report on our PZ-3 3-year medium-term management plan that was presented at the analyst briefing sessions. (Currently we are showing an explanation of our new PZ-60 3-year medium-term management plan that was announced in May 2008.)

During April 2008 we went on-line with an upgrade to our web site that features a new shareholders’ meeting page in the IR Information section of the site. The new page includes video of the reporting part of the annual general meeting.

Comprehensive upgrade to our web site goes on-line with a strong emphasis on CSR

Living as we now do in a world where use of the internet is part of our daily lives, the new site introduced a design that was devised based on looking at the site from a user’s perspective and produced with an emphasis on “accessibility” (whether the web site is able to be used by as many people as possible including the elderly and disabled) and “usability”. The fully upgraded site went on-line on April 1, 2008. A typical example of how accessibility was considered in the design is a feature whereby the text on the site can be switched between either standard or enlarged size to ensure readability.

To improve usability, representative images have been included to indicate the category of information and to help the user recognize which part of the site they are looking at. Also, the navigation and other assistance that appears on the right of the screen is hidden when printing to ensure the printout can fit on an A4-size paper, and a print button has been added on those pages that users are most likely to print.

Whereas our previous web site was limited to posting our CSR report (as a PDF file), the new upgraded site includes a new CSR activities section that summarizes our CSR activities with separate pages covering our CSR Strategy, Environmental Philosophy and Safety Philosophy, CSR Framework, Eco-friendly Product Development, and Quality Assurance Mechanisms.
Quality Management

We are working to strengthen the links between the plants, operational departments and research units (R&D Center) in order to improve quality management on a company-wide basis and create an integrated organization for production, sales and technology.

The Quality Assurance Department at head office maintains close communication with the quality assurance units at the plants in order to solve any issues that arise at the plants. The Quality Assurance Department works to resolve issues from a customer perspective by identifying the causes of products and evaluating the suitability of countermeasures in order to reduce any ongoing problems in production processes that have the potential to affect production sites across the group with the ultimate aim of reducing customer claims to zero.

Quality Assurance Mechanisms

In order to ensure the reliable supply of high-quality products to our customers, we have implemented various quality assurance mechanisms based on the ISO9001:2000 international standard for quality management systems.

Status of ISO9001 Accreditation

At ZEON, all four plants and the operational departments (polymer departments and specialty materials departments) are already certified under ISO9001.

At our affiliates, ISO9001 certification registration has been performed primarily for production departments. At our main plants, some affiliates have undertaken combined audits that include assessment under ISO14001 (environment management systems) as they move to adopt comprehensive management systems.

World-wide Product Safety Activities

We are actively involved in the following research and evaluation programs on hazardous chemical substances, their safety and their effect on the environment, and are providing support through ongoing funding and data sharing.

(1) We perform our own safety evaluations through participation in the HPV Initiative.
   - A consortium of companies producing hydrocarbon solvents in association with European and American counterparts (HSIP).
   - Japan Challenge Program:
     - HPV Initiative: An initiative for assessing the hazards of existing high production volume chemical substances.
     - Japan Challenge Program: A joint initiative between the Japanese Government and industry for collecting safety information on existing high production volume chemical substances.
   - HSIP: Hydrocarbon Solvent Japan Panel. The domestic panel of the IHSC (International Hydrocarbon Solvent Consortium)

   (2) We support research into toxicity evaluation through participation in the LRI.
   - LRI: Long-range Research Initiative. Research into long-term issues related to the impacts that chemicals may have on human health and the environment.

   (3) We support investigation into understanding and countering the environ-mental impact of synthetic rubbers through participation in the Far Eastern Subcommission on Marine Pollution.

   * HSIP: International Institute of Synthetic Rubber Producers

Other Initiatives Relating to Chemicals and Product Safety

Domestic and International Chemical Regulations

In response to the new EU RoHS directive effective July 1 2006 and the introduction of mandatory labeling for designated chemical substances under the Law for Promotion of Effective Utilization of Resources (J-Moss) in Japan, ZEON supplies products that comply with the maximum content limits on heavy metals such as cadmium, lead, mercury and hexavalent chromium, as well as designated toxic chemicals such as bromine-based flame retardants.

Meanwhile, the EU’s new REACH law for managing and regulating chemicals came into effect on June 1, 2007 with preliminary registration commencing from June 1, 2008. Although this is an EU law, it requires that safety information on chemical substances be made available across the supply chain which means it is essential for ZEON to carry out a large impact outside the EU, including in the area of substance registration. ZEON has been working to review its management of chemical substances and put in place measures to ensure that chemical safety information is promulgated accurately, including through membership of the Japan Article Management Promotion consortium.

RoHS directive: This stands for the restriction of the use of certain hazardous substances (The directive limits the use of specific toxic substances contained in electrical and electronic products.)

Japan Article Management Promotion consortium (JAMP) - a consortium of upstream and downstream businesses (manufacturers of materials, parts, finished products, and so on) dedicated to creating concrete frameworks for the administration and disclosure of product chemical content information. Following an amendment to the Occupational Health and Safety Law (that makes it obligatory to use GHS labeling for specific chemical substances from December 2006), ZEON has modified the labeling on its products and test specimens that are covered by the legislation until May 31, 2008.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

Product Safety Reviews

Product safety is reviewed at every stage from initial research through to final product sales using our own checklists to verify the safety of products from various perspectives.

MSDS Publication

Information regarding product safety is supplied to customers in the form of MSDS. (Material Safety Data Sheets)

ZEON has published MSDS 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 Permitting Release and Transfer Register (PRTR) Law, and toxic substances under the Poisonous and Deleterious Substance Control Law).

Education on Chemical Product Safety

ZEON carries out education on chemical and product safety topics including the notification procedure for new chemical substances and international trends in chemical regulations such as the REACH law.
Quality Assurance

We are working to strengthen the links between the plants, operational departments and research units (R&D Center) in order to improve quality management on a company-wide basis and create an integrated organization for production, sales and technology. The Quality Assurance Department at head office maintains close communication with the quality assurance units at the plants in order to solve any issues that arise at the plants. The Quality Assurance Department works to resolve issues from a customer perspective by identifying the causes of products and evaluating the suitability of countermeasures in order to reduce any ongoing problems in production processes that have the potential to affect product approvals across the group with the ultimate aim of reducing customer claims to zero.

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World-wide Product Safety Activities

World-wide Product Safety Activities

Incorporating the requirements of national and international laws, ZEON is actively involved in research and development that reflects the interests of customers and society as a whole. As a corporate responsibility, ZEON is committed to ensuring the safety of its products.

We are actively involved in the following research and evaluation programs on hazardous chemical substances, their safety and their effect on the environment, and the use of support through ongoing funding and data sharing.

(1) We perform our own safety evaluations through participation in the HPV Initiative.
(2) We support research into toxicity evaluation through participation in the LRI.
(3) We assess current conditions and the status of ISO certification at our group companies.

Specific activities include the following.

<World-wide Product Safety Activities>

For further information, please contact ZEON Corporation.

(A) ISO9001 Registration Area

(1) We perform our own safety evaluations

(2) We support research into toxicity evaluation

(B) Management System Certification Program

(3) We assess current conditions

(4) We support research into toxicity evaluation

(C) Participation in International Organizations

(D) Laboratory Accreditation

(E) Implementation of Quality Assurance Mechanisms

Other Initiatives Relating to Chemicals and Product Safety

Implementation of Product Safety Reviews

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Education on Chemical Product Safety

ZEON carries out education on chemical product safety topics including the notification procedure for new chemical substances and international trends in chemical regulations such as the REACH law.
Dialogue

Responsible Care Community Dialogue

Tokuyama Plant

The Fourth Shunan Responsible Care Regional Dialogue (a meeting on environmental protection in the Shunan region attended by 15 companies) was held on November 13, 2007. The meeting was attended by 165 people, most of whom were from local government, and involved a lively exchange of opinions. This was the first time the meeting had included a round-table discussion and resulted in hopes and expectations for involvement in local government activities.

Television appearances

In October 2007, President Furukawa appeared on the "Maidohaya" television program broadcast by Kita-Nippon Broadcasting in an item entitled "a new factory for the era of terrestrial digital broadcasting" (subtitled: "a new star for ZEON Corporation") where he introduced the new factory and explained the production process for optical film for LCD televisions, spoke of the mission to "make Toyama a leading international production hub", and extolled the virtues of "working at ZEON". President Wakamatsu of Optes Inc. (see page 56) also appeared on the same program where he promoted the excellent quality of his company's optical film.

Joint initiatives with universities (Mizushima Plant)

In December 2007, Mizushima Plant was opened to a site visit from everyone at Kagawa University (Social Science Laboratory, Faculty of Education). Although these factory open days are held several times a year for high school students, this was the first time that university students had been invited. The tour included a visit to the Integrated Production Center (IPC) building that had only just been opened in November. The IPC is a manufacturing facility that allows for fast decision making and implementation with the objective of safe and reliable production and overall optimization. The way the visitors listened intently to the explanation from deputy factory manager Nishijima in the Discussion Room was impressive.

Takaoka Plant

Takaoka Plant participated as an organizing company at the "Fourth BC Community Dialogue" held at Takaoka City, Toyama Prefecture in March 2008. The dialogue was attended by more than 100 people, primarily from local government, and involved updates and presentations on the activities of five companies along with a lively exchange of opinion. (See related article on page 41.)

Visitors listen intently to a presentation

Commemorative photograph

Newspaper article on the Chemical Industry

Social Activity Performance

Relationship with the Local Community

Our relationship with the local community is also described in the Site reports “Living together with the local community” on page 37 onwards.

Relationship with Employees

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

~ Relationship with Employees ~

Basic Philosophy

ZEON aims to establish an environment in which employees can set their own lofty goal of "being what we want to be" and in which, to achieve this goal, they can think rigorously, accept challenges, and continue to change. Having set "being what we want to be" as an objective for everyone, ZEON has changed its education and training practices to make them relevant to specific daily activities and not just to filling the gap between this objective and current reality. The results achieved through these activities are evaluated fairly and actioned with the aim that this will lead to further lofty goals.

Improvement in the "workplace strength" across the entire company is the result of the cumulative innovations and improvements achieved by the specific activities of individual employees. Education and training at ZEON is broadly divided into core education that is targeted at all employees and focuses primarily on raising awareness and acquisition of common knowledge, specialist education for various specific jobs, and on-the-job training conducted in the workplace.

In particular, the curriculum was revised in 2007 to temporary basis but something that leads to practical training for employees who deal with global business, practices were changed to link with feedback through reviews covering 14 categories by the company's rapid global expansion.

One example is the "English course for training key overseas staff" established in 2007. In addition to English conversation, the curriculum aims to instill practical skills that are immediately useful in specific business situations such as presentation, negotiation and business writing.

Global employee training

ZEON has expanded its internal and external training programs for the ongoing training of employees involved in the company's rapid global expansion. The subsequent 360 degree multi-faceted performance appraisals that change attitudes and actions

Multi-faceted performance appraisals that change attitudes and actions

The training for newly appointed managers in 2007 involved comprehensive discussion amongst all the participants on each person's action plan for "changing ZEON" which they then vowed to carry out. The subsequent 360 degree multi-faceted performance appraisals involved forthright and provocative feedback from others at the same, higher, and lower levels in the organization and I felt provided me with the opportunity to review my own situation on a monthly basis as I worked through my action plan. For someone like myself who is approaching 40 years of age and hopes to grow in maturity in both the public and personal parts of my life, I am truly grateful for this challenging training.

Masahiro Tanigawa

Tokuyama Plant
Relationship with the Local Community

Our relationship with the local community is also described in the Site reports “Living together with the local community” on page 37 onwards.

Responsible Care Community Dialogue

Tokuyama Plant
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Takaoaka Plant
Takaoaka City, Toyama Prefecture in March 2008. The dialogue was attended by more than 100 people, primarily from local government, and involved updates and presentations on the activities of five companies along with a lively exchange of opinion. (See related article on page 41.)

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~ Relationship with Employees ~
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ZEON strives to be a company that respects the virtues of “working at ZEON”. President Furukawa appeared on the ‘Maidohaya’ television program broadcast by Kita-Nippon Broadcasting in an item entitled ‘a new factory for the era of terrestrial digital broadcasting’ (subtitled: ‘a new star for ZEON Corporation’) where he introduced the new factory and explained the production process for optical film for LCD televisions, spoke of the mission to ‘make Toyama a leading international production hub’, and extolled the virtues of ‘working at ZEON’. President Wakamatsu of Optes Inc. (see page 56) also appeared on the same program where he promoted the excellent quality of his company’s optical film.

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Multi-faceted performance appraisals that change attitudes and actions
The training for newly appointed managers in 2007 involved comprehensive discussion amongst all the participants on each person’s action plan for ‘changing ZEON’ which they then vowed to carry out. The subsequent 360 degree multi-faceted performance appraisals involved forthright and provocative feedback from others at the same, higher, and lower levels in the organization and I felt provided me with the opportunity to review my own situation on a monthly basis as I worked through my action plan. For someone like myself who is approaching 40 years of age and hopes to grow in maturity in both the public and personal parts of my life, I am especially grateful for this opportunity of doing challenging training.

Masahiro Tamano
Tokuyama Plant
A 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 treated fairly, with the entire organization pointing in the same direction.

A bonus scheme linked to corporate results and departmental results helps establish a sense of company unity by encouraging everyone to work together to contribute to company performance. ZE allowance has been introduced as an incentive for cost reduction activities.

The severance 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.

Fair performance assessment system provides a sense of achievement and challenge

An objectives-based performance appraisal system has been introduced with the aim that all employees will challenge lofty goals. Also, annual training is provided both for those doing the assessing and those being assessed so that the appraisals are done in a fair and balanced way.

A particular emphasis is put on giving employees a sense of ownership of the appraisals and the aim is to create a corporate culture overflowing with a sense of achievement and aspiration (a sense of challenge and creative desire) by making the expectations, work duties and targets of each person clear at the start of each period and sharing these between superiors and subordinates, and by making a fair appraisal of work and results (contribution to the organization) at the end of the appraisal period.

On the other hand, systems have been revised as necessary to include factors such as process evaluation and level of contribution to the team to prevent individualism and too much emphasis being placed on results.

Other significant features include:
- Details of the appraisal system are made clear to all employees.
- Each department and workplace holds appraisal meetings at the start and end of the appraisal period that bring together a number of appraisers. The beginning of period meeting agrees on common objectives and issues and assigns priorities, and the end of period meeting carries out a review by a number of different people.
- Everyone participates in establishing the issues for the employee being appraised at the start of the period and feeding back the appraisal results at the end of the period.

The union carries out a questionnaire on the appraisal system every year. The results of the 2007 questionnaire indicated that 83% of employees agreed with their appraisals.

In the future, ZEON will continue to work at establishing systems that allow everyone to perform creative work that adds more value and that distribute opportunity and results fairly and impartially.

Awards system (ZEON Challenge Award)

Awards schemes include the Employee of the Month (bestowed by department managers on a monthly basis) and the annual President’s Award, whereby individual employees and departments that perform a specific challenge at the start of the year and are judged on their progress in the nominated area.

Annual awards include the President’s Award, Excellence Award and Department Manager Award which are handed out at a lavish annual ceremony and dinner function. The event always includes surprises - for example, the families of the winners are invited to attend, unbeknownst to the winners themselves. It provides an important opportunity to celebrate their achievements while looking forward to the challenges of the coming year.

ZEON Master system (Reemployment system)

A reemployment system has been introduced that allows retired employees who have valuable skills and a desire to remain involved with the company to continue working after retirement age. As a mark of respect, reemployed staff are referred to as "master (employees)."

Of the 90 employees who retired in 2007, 62 (68%) are active as master employees.

An easy working environment that emphasizes dialogue

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 health and safety”, and “supporting self-reliance (based on a life plan)”. Support for raising the next generation

The “Law for Measures to Support the Development of the Next Generation” came into force in 2005 as part of government policy for dealing with the low birth rate.

Based on this law, ZEON has established an action plan up to March 2009 for supporting the raising of the next generation. To date, the company has introduced measures such as the “expansion of reasons for allowing employees to take a half-day holiday” and a new support system called the “part-time work system” to help employees manage child care and support work-life balance, and is taking steps to ensure that the operational and other aspects of these work smoothly. All female employees who gave birth took child-care leave and two male employees also took child-care leave.

New measures added in the 2007 financial year

• Expansion of reasons for allowing employees to take a half-day holiday
  Child care responsibilities, participation at children’s school activities, and the birthday of a spouse or child were added as permitted reasons.

• Part-time work system
  This program applies to employees recognized by the company who are living with and raising a child up to and including the third year of elementary school.

The scope of the flexible time system for employees with child care responsibilities was also expanded.

Expansions of flexi-time system

I took eleven months maternity leave after having my baby in June 2007. During this time, I had difficulty finding a balance between childcare and work. I also experienced periods of home-schooling for the first time in my child’s life.

I had to deal with the stress of managing my own work, housework, and childcare, which I had not experienced previously. I used to be able to manage work, housework, and childcare, but I have found that I am able to combine work, housework, and childcare.

Now, I am able to manage my affairs in a reasonable way with the understanding and cooperation of the other people in the workplace. Although I have only just come back to work, I have found that I am able to combine work, housework, and childcare and have come to cherish even more the time I spend with my children.

**Items in blue were added in 2007**
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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.

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(2) Part-time work system

This program applies to employees recognized by the company who are living with and raising a child up to and including the third year of elementary school.

The scope of the flexible-time system for employees with child care responsibilities was also expanded.

Expansion of flexi-time system

I took eleven months maternity leave after having my babies in June 2007 and returned to work in May 2008. Although, prior to returning to work, I was worried whether I would be able to manage work, housework and child care, I spoke with my supervisor before going back and they consented to my using the flexi-time scheme for tasks such as taking my children to day care.

Now, I am able to manage my affairs in a reasonable way with the understanding and cooperation of the other people in the workplace. Although I have only just come back to work, I have found that I am able to combine work, housework and child care and have come to cherish even more the time I spend with my children.

Taeko goto

Head Office (Employee who took child-care leave)
Relationship with Employees

Measures to encourage dialogue
ZEON places a high value on teamwork and emphasizes dialogue (communication) as a way to create a common understanding between all employees and a workplace in which everyone shows concern for each other, and to improve “workplace strength.” Not only dialogue between management and employees, but dialogue between the company and the overall workforce and between separate workplaces are all critical to overcoming the barriers between different departments, getting the entire company working in the same direction and building a sense of satisfaction and pride amongst employees.

(1) Dialogue with management
ZEON takes active measures such as holding policy explanation meetings where managers from the President on down visit the workplace to give explanations and provide an opportunity for exchanges of opinion. During 2007, 31 such events involving the President and placed in factories and 15 at the R&D Center. Some of these opinion sharing meetings included the opportunity for the attendees to share a few drinks to encourage a more in-depth dialogue.

(2) 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. Although consultative meetings between management and labor provide ample opportunity for forthright discussion, 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.

(3) Dialogue between employees
Although its culture is already dialogue-friendly, ZEON takes steps to encourage dialogue in various different situations in the hope that this will go some way to help bridge the gaps between departments and workplaces and between generations. The company also has a program called “dialogue planning” that underlies the area of health and welfare by setting up situations for free and frank discussion between employees and also including families and the community.

Environment and Safety Training

We are fully committed to safety management with training carried out at head office and special training exercises performed at each plant.

Training at the Head Office

Manager and supervisor training
“Production Manager Training” and “Foreman Training” programs held over two days and aimed at plant staff with front-line responsibility for safety management were jointly organized by the Human Resource Department and Environmental & Safety Affairs Department. Since 2004, these training sessions have encouraged participants from the production and maintenance departments, including the maintenance superintendent, to work together. The training has covered environmental and safety laws, classroom work on basic safety, awareness education conducted via group discussions on preventing accidents and workplace injuries, and courses conducted by external tutors on “How to Carry Out Workplace Tours and Inspections” that build on basic learning about how best to go about performing inspections. Priority has also been placed on training in techniques for root cause analysis in an effort to prevent problems reoccurring.

The Safety Environmental Affairs Department also provides executives from affiliated companies with annual training designed to promote awareness of safety issues. In addition, training for new production managers and environment and safety managers was held twice during the 2007 year.

Safety training by past plant managers
A trial using past plant managers with extensive knowledge and experience to provide safety training for employees was continued. Since 2003, safety training for all plant staff has been carried out with past plant managers as tutors. In 2007, this course used a video of an experimental explosion to demonstrate the danger inherent in familiar chemicals and other products, using an actual recent example of a serious workplace accident as an example. The training was well received and similar training will continue in the future.

Environments and Safety Training Exercises at Plants

ZEON performs “Abnormality Anticipation Drills”, “Emergency Training”, “Comprehensive Fire Drills” and “Report Training” as part of an annual plan. We are also involved in everyday activities such as a forklift driving safety contest. Active steps were also taken in 2007 to extend to the plants a practical learning system that was launched in 2004, and we conduct ongoing training programs for employees that use simulations to raise their awareness of safety. Specifically, we held a practical fire drill and a simulation of being caught up in a rolling mill.

Environmental and Safety Training

We are fully committed to safety management with training carried out at head office and special training exercises performed at each plant.

Training at the Head Office

Manager and supervisor training
“Production Manager Training” and “Foreman Training” programs held over two days and aimed at plant staff with front-line responsibility for safety management were jointly organized by the Human Resource Department and Environmental & Safety Affairs Department. Since 2004, these training sessions have encouraged participants from the production and maintenance departments, including the maintenance superintendent, to work together. The training has covered environmental and safety laws, classroom work on basic safety, awareness education conducted via group discussions on preventing accidents and workplace injuries, and courses conducted by external tutors on “How to Carry Out Workplace Tours and Inspections” that build on basic learning about how best to go about performing inspections. Priority has also been placed on training in techniques for root cause analysis in an effort to prevent problems reoccurring.

The Safety Environmental Affairs Department also provides executives from affiliated companies with annual training designed to promote awareness of safety issues. In addition, training for new production managers and environment and safety managers was held twice during the 2007 year.

Safety training by past plant managers
A trial using past plant managers with extensive knowledge and experience to provide safety training for employees was continued. Since 2003, safety training for all plant staff has been carried out with past plant managers as tutors. In 2007, this course used a video of an experimental explosion to demonstrate the danger inherent in familiar chemicals and other products, using an actual recent example of a serious workplace accident as an example. The training was well received and similar training will continue in the future.

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Relationship with Employees

Measures to encourage dialogue
ZEON places a high value on teamwork and emphasizes dialogue (communication) as a way to create a common understanding between all employees and a workplace in which everyone shows concern for each other, and to improve “workplace strength.” Not only dialogue between management and employees, but dialogue between the company and the overall workforce and between separate workplaces are all critical to overcoming the barriers between different departments, getting the entire company working in the same direction and building a sense of satisfaction and pride amongst employees.

(1) Dialogue with management
ZEON takes active measures such as holding policy explanation meetings where managers from the President on down visit the workplace to give explanations and provide an opportunity for exchanges of opinion. During 2007, 31 such events involving the President took place in factories and 15 at the R&D Center. Some of these opinion sharing meetings included the opportunity for the attendees to share a few drinks to encourage a more in depth dialogue.

(2) 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. Although consultative meetings between management and labor provide ample opportunity for forthright discussion, 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.

(3) Dialogue between employees
Although its culture is already dialogue-friendly, ZEON takes steps to encourage dialogue in various different situations in the hope that this will go some way to help bridge the gaps between departments and workplaces and between generations.

The company also has a program called “dialogue planning” that underlies the area of health and wellness by setting up situations for free and frank discussion between employees and also including families and the community.

ZEON labor union
Building the opportunities to enjoy a happy life

The ZEON labor union had 1,539 members as of March 2008. The union agreed a “Joint Declaration by Labor and Management” in 1998. This move was deployed by reaffirming a commitment to the company and to working conditions in which all employees can take pride, based on core values of contributing to society, innovative technology and participation by all achieved through a strong partnership between management and labor.

Subsequently, recognizing that the continued existence and growth of the company is a prerequisite for maintaining employment and sustaining and improving the standard of living, the union has taken an active role in the business of the company through measures such as the labor union itself purchasing company shares.

Union members are involved in implementing the declarations and other measures formulated with consideration for the opinions of union members obtained through consultation such as at the monthly formal and informal meetings between management and labor, with the aim of creating “overall working conditions that allow life and job satisfaction”. ZEON continues to see trust between workers and management as the foundation underlying progress towards our CSR strategy of creating “a company that is trusted by the public and a source of pride to its employees” and our overall vision of “building the opportunities to enjoy an even happier life.”

Toshiyuki Kojumura
Chairman, National Action Committee ZEON Labor Union

Environment and Safety Training

Exercises at Plants

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Eco-friendly Product Development

**Products that Promote Energy Saving**

**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. In developing synthetic rubber that makes tires more fuel-efficient, ZEON has succeeded improving 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.

*Automotive tire made of fuel-efficient synthetic rubber*

**Zeoglobule® polymerized toner**

Pulverization is the conventional method for producing the toner used in copiers and similar 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.

*Toner electron microscope image*

**Quintac® solvent-free thermoplastic elastomer for adhesive tapes**

Previous production methods for adhesive tape required the use of solvents and therefore resulted in the release of VOCs (volatile organic compounds) into the environment. On the other hand, using ZEON’s Quintac® thermoplastic elastomer which has a block structure of polystyrene and polyisoprene allows adhesive tape to be produced without the use of solvents and therefore helps reduce VOC pollution. It also saves on the energy that was previously used to evaporate the solvent in the final stages of production.

*Adhesive tapes produced using thermoplastic elastomer*

**Quintone® CS petroleum resin for hot-melt road marking**

Quintone® C200 series Hot melt road marking paints that use the Quintone C200 series as a binder can be used without solvents. This helps reduce VOC (volatile organic compound) pollution.

*Traffic paint that uses Quintone CS petroleum resin*

**Products that Help Protect the Ozone Layer**

**Elastomer C5 Laboratory**

ZEONOR® H

As recently discussed at the Toyako Environmental Summit held in Hokkaido, measures to deal with environmental problems on a global scale such as preventing global warming and the depletion of the ozone layer are becoming important issues. Zeorora® H is a detergent with excellent environmental characteristics including an ozone depletion coefficient of zero and minimal effect on global warming. The benefits of the product have been publicly acknowledged through commendations such as the Stratospheric Ozone Protection Award from the U.S. EPA and the GSC Environmental Award from the Global & Sustainable Chemistry Network (GSCN). It is now exhibited at the "Aiming for Green Chemistry" booth at the National Science Museum in Tokyo.

*EPA Ozone Protection Award*

**Products with Low Environmental Risks**

**New effect solvent**

Cyclo-pentyl methyl ether (CPME)

CPME is used as a solvent in chemical processes for pharmaceuticals, agrichemicals, and electronic materials as a substitute for existing ethers (THF, ether, etc.) which have a number of different problems. If CPME is used in ways that take advantage of its characteristics, the benefits include energy savings and less impact on the environment.

1. Its lack of water solubility means it can easily be separated from water and recycled. This reduces waste water and waste fluid volumes.
2. Because it does not readily form peroxides, it can easily be recovered by distillation.
3. Significant cost savings can be achieved on both variable and fixed costs because the reaction, extraction and crystallization processes can all use the same solvent.

CPME won the 2006 prize from the Society of Synthetic Organic Chemistry in Japan.

Jasmonate® has been well received by the agriculture industry and was awarded the 2005 Technology Prize by the Japanese Society for Chemical Regulation of Plants. It is becoming more widely used for nashi in South Korea and grapes and tropical fruit in Taiwan.

Research into environmental solvents is well-regarded. We are involved in research and sales of products such as solvents that contribute to environmental protection and agrichemicals that improve fruit harvests. This work has been well-regarded outside the company and has been rewarded with awards from various associations.

*Masami Koshiyama*

Taiwan.

Chemical Products R&D Center

*Chemical Products R&D Center*
Environment and Safety Activity Performance

Product Development

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Products that Help Eliminate Use of Organic Solvents

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Products that Encourage the Environmental Conservation

Quintone® CS petroleum resin for hot-melt road marking

Quintone® C200 series Hot melt road marking paints that use the Quintone C200 series as a binder can be used without solvents. This helps reduce VOC (volatile organic compound) pollution.

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Achievements

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Overview of Environmental Burdens

- Energy: 308,000 kl (of crude oil equivalent)
- Water resources: 19,680,000 m³
- Products: 1,113,000 tons

Environment and Safety Activity Performance

Achievements

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Safety and Accident Prevention

Dialogue Between Management and Plants

Recognizing that safety takes priority over all other management issues, the president is at the forefront of efforts to establish the best possible safety management system across the whole company.

1. Introduction of an equipment information management system to prevent omissions ("Never rely on ‘maybe’ or ‘should’").

2. Plant deterioration countermeasures and foolproofing measures ("Good judgments save money")

3. Review of past accidents and recurrence prevention ("Never rely on ‘maybe’ or ‘should’").

4. Review of standards ("Always follow the rules. Change any rules that cannot be followed")

We constantly try to improve our standards by making them easier to observe and easier to understand. We work systematically to eliminate unnecessary standards, simplify the contents of others, and make full use of pictures and diagrams to make the standards easier to use.

Accreditation of all offices as certified safety inspectors

Following on from having the personnel responsible for safety inspections at our Mizushima and Tokuyama Plants accredited as certified safety inspectors in the 2006 financial year, the accreditations for the safety inspectors were renewed and certification was obtained for the personnel responsible for completion inspections at the Kawasaki Plant in the 2007 financial year. As a result, all sites now have safety inspectors who are certified under the new law.

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 and 75 in 2007.

All ZEON Safety Conference

April of each year is ZEON Safety Month during which we increase our emphasis on safety activities. Risk prediction is a major focus with extra effort put into 4R-KF, while enthusiasm for safety activities is boosted by distributing safety relay essays about risk prediction to all employees.

The All ZEON Safety Conference is also held during this period. This successful event was attended by about 100 people including the President.

This year’s conference included a lecture from an invited speaker entitled ‘safety is determined by how top management behave’ that covered the prevention of human error, accidents, and other incidents. Other presentations described case studies of practical 4R-KF work, foolproofing work, and measures for preventing accidents and work injuries.

The conference recognized the people working on ongoing safety activities and the President distributed commendations and prizes to each participant to help foster a culture of safety awareness.
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### Environment and Safety Activity Performance

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<tr>
<td>(2) Implement product safety reviews for new products and new applications</td>
<td>5 reviews performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Strengthen the company-wide energy conservation project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Zero environment accidents, zero safety incidents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Promote chemical safety and product safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Implement product safety reviews for new products and new applications</td>
<td>5 reviews performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Implement product safety reviews for new products and new applications</td>
<td>5 reviews performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Strengthen the company-wide energy conservation project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Zero environment accidents, zero safety incidents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Promote distribution safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Implement product safety reviews for new products and new applications</td>
<td>5 reviews performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Implement product safety reviews for new products and new applications</td>
<td>5 reviews performed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Water resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Safety and Accident Prevention

#### Dialogue Between Management and Plants

There is an active program of management visits to each plant to provide the opportunity for dialogue between the management and plants. This includes direct interaction with the plant staff who work at the front line to allow frank discussion about how best to make the plants even safer and more reliable than they currently are, with ‘good judgments save money’ being the key principle. The President actively promotes these dialogues and he made 56 plant visits in 2005, 43 in 2006 and 46 in 2007.

#### The President takes the lead in promoting safety management

Recognizing that safety takes priority over all other management issues, the president is at the forefront of efforts to establish the best possible safety management system across the whole company.

1. Introduction of an equipment information management system to prevent emissions (‘Never rely on ‘maybe’ or ‘should’”).

2. Plant deterioration countermeasures and foolproofing measures (‘Good judgments save money’)

3. Review of past accidents and recurrence prevention (‘Never rely on ‘maybe’ or ‘should’”).

4. Review of standards (‘Always follow the rules. Change any rules that cannot be followed’)

We constantly try to improve our standards by making them easier to observe and easier to understand. We work systematically to eliminate unnecessary standards, simplify the contents of others, and make full use of pictures and diagrams to make the standards easier to use.

#### Accreditation of all offices as certified safety inspectors

Following on from having the personnel responsible for safety inspections at our Mizushima and Tokuyama Plants accredited as certified safety inspectors in the 2006 financial year, the accreditations for the safety inspectors were renewed and certification was obtained for the personnel responsible for completion inspections at the Kawasaki Plant in the 2007 financial year. As a result, all sites now have safety inspectors who are certified under the new law.

#### 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 and 75 in 2007.

#### All ZEON Safety Conference

April of each year is ZEON Safety Month during which we increase our emphasis on safety activities. Risk prediction is a major focus with extra effort put into 4R-KF, while enthusiasm for safety activities is boosted by distributing safety relay essays about risk prediction to all employees.

The All ZEON Safety Conference is also held during this period. This successful event was attended by about 160 people including the President. This year’s conference included a lecture from an invited speaker entitled ‘safety is determined by how well we perform our jobs’ and presentations described case studies of practical 4R-KY work, foolproofing work, and measures for preventing accidents and work injuries.

The conference recognized the people working on ongoing safety activities and the President distributed commendations and prizes to each participant to help foster a culture of safety awareness.
Occupational Health and Safety

Industrial Health and Safety Initiatives

ZEON undertakes measures to prevent workplace accidents for the sake of employee health. In striving to achieve a stable and safe production system that increases "workplace strength", ZEON puts considerable effort into SS safety audits, risk assessments and caring-for-each-other activities. Other initiatives are identifying near-miss incidents, hands-on training, supervisor training for production managers, foremen and others, and running safety training at affiliated companies. Other measures aimed at promoting the physical and mental well-being of employees include physical exercises and mental health education.

Safety SS Diagnosis

-Based on ZEON’s safety philosophy that ‘safety will be achieved by following our SS program and when everyone takes responsibility for their own actions’, SS safety audits are carried out annually at each company site and affiliated company. Five company sites and fourteen sites from amongst eleven affiliates were visited in 2007. These audits not only identify things that are wrong, they also emphasize positive points that could serve as a model for others. A supreme award and commendation awards are given out on a departmental basis at the All ZEON Safety Conference to recognize these.

KY ("Kiken Yochi") Risk Assessment

-To prevent workplace accidents and deal with the potential for human error, ZEON has adopted the "4R-KY" ("four-round kiken yochi (risk assessment)") practice whereby employees check for any unsafe situations before starting a task to avoid placing themselves in danger. Based on the size of each workplace, workers who had received external training to learn the correct methods were deployed as "KY trainers" during 2007 to promote the KY program in their own workplaces.

Expanding Caring-for-each-other Activities

-With the aim of reducing unsafe activities in employees’ daily work, ZEON has put in place a company-wide program of "caring for each other" that seeks to build relationships between people and create a culture that encourages not only supervisors and other staff working in the same workplace, but also staff from affiliated companies to point out any unsafe activities. Three ‘Special Action Months’ were held during 2007 during which the “warning frequencies” at each workplace were collated and published as a way of engaging people’s competitive spirits to promote action. During the 2007 financial year, more than 30,000 warnings were counted across all group companies in just these three special action months.

Formalized Hands-on Training

-Each workplace introduced hands-on training for workplace accident prevention to better capture the attention of staff. Hands-on training sessions demonstrating getting caught in a rolling mill were conducted across the ZEON group.

Health Management

-Everyone wants to work in a comfortable and healthy environment. With the aging population, the number of people suffering from lifestyle-related diseases or conditions identified in health checks is increasing. In addition to obligatory regular health checks and special health checks, medical checks include diagnostic checks to prevent metabolic syndrome (visceral adiposity), checking for colon cancer, funduscopy, gastric examination, gynecological examination, tumor markers and family health checkups. In addition to this, measures such as nutritional advice, health seminars and health work are provided for health and fitness.

Mental Health

-ZEON believes that taking active steps to maintain mental health is important and the company conducts annual mental health training across the entire company. Fourteen such training sessions, which were entitled ‘Power Harassment and Mental Health’ and targeted at all employees, were held during 2007 and were attended by about 1,100 employees. To boost ‘care by industrial health staff in the workplace’, temporary mental health personnel were deployed to provide counseling and training to employees in accordance with the circumstances in each workplace.
**Industrial Health and Safety Initiatives**

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The PRTR (Pollutant Release and Transfer Register) law applies to 49 substances used at ZEON. Total discharges reduced from 67.8 tons in 2000 to 57.6 tons in 2007. ZEON is working vigorously to reduce discharges.

### Discharge and transfer data for substances restricted by law

<table>
<thead>
<tr>
<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>Acrylonitrile</td>
<td>5.9</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Acrylic acid</td>
<td>9.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ethyl acrylate</td>
<td>2.042</td>
<td>2.5</td>
<td>0.0</td>
<td>2.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Methyl acrylate</td>
<td>65.4</td>
<td>0.3</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Acrylonitride</td>
<td>26.506</td>
<td>20.7</td>
<td>0.0</td>
<td>20.7</td>
<td>139.2</td>
</tr>
<tr>
<td>Acryl alcohol</td>
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<td>0.0</td>
<td>0.0</td>
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<tr>
<td>1-allylsulfonyl</td>
<td>229.9</td>
<td>1.9</td>
<td>0.0</td>
<td>2.0</td>
<td>0.9</td>
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<tr>
<td>Linear alkylbenzene sulfonate</td>
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<tr>
<td>Isoprene</td>
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<td>0.1</td>
<td>0.8</td>
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<td>Bisphenol A type epoxy resin</td>
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<tr>
<td>Ethylene oxide</td>
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</tr>
<tr>
<td>Ethylene diamine</td>
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<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Ethylene-diamine tetraacetic acid</td>
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<tr>
<td>Epichlorohydrin</td>
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<td>Propylene oxide</td>
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<td>Xylene</td>
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<td>5.4</td>
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<tr>
<td>Vinyl chloride</td>
<td>759.0</td>
<td>1.3</td>
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<tr>
<td>Vinyl acetate</td>
<td>287.7</td>
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<td>0.1</td>
<td>0.2</td>
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<tr>
<td>Diphénylamine</td>
<td>8.1</td>
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<td>N,N-dimethylformamide</td>
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<tr>
<td>Styrene</td>
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<td>52.9</td>
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<tr>
<td>Dioxin*</td>
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<td>Tetraethylammonium hydride</td>
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<td>Toluene</td>
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<td>Nickel</td>
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<td>Nickel compound</td>
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<td>2-vinylpyridine</td>
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<td>Phthalate</td>
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<td>1,3-butadiene</td>
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<td>Bis phthalate (2-ethylhexyl)</td>
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<td>Benzene</td>
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<tr>
<td>Polyacrylates (acyl fatty)</td>
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<tr>
<td>Polyacrylates (nonylphenyl ether)</td>
<td>89.4</td>
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<tr>
<td>Fumaric acid</td>
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<td>0.0</td>
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</tr>
<tr>
<td>Maleic anhydride</td>
<td>1,723.4</td>
<td>0.7</td>
<td>0.7</td>
<td>1.3</td>
<td>0.0</td>
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<td>Maleic acid</td>
<td>2,032.0</td>
<td>0.0</td>
<td>0.0</td>
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<td>Maleic acid 3,3-epoxy propyl</td>
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<tr>
<td>Maleic acid (n-buty)</td>
<td>4.1</td>
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<td>Methyl methacrylate</td>
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<td>3.6</td>
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<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>3.3</td>
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<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>780,762.9</td>
<td>56.6</td>
<td>1.0</td>
<td>57.6</td>
<td>605.7</td>
</tr>
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</table>

## Emissions to the Atmosphere

**Amount of butadiene emissions into atmosphere**

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>20</td>
</tr>
<tr>
<td>96</td>
<td>10</td>
</tr>
<tr>
<td>97</td>
<td>5</td>
</tr>
<tr>
<td>98</td>
<td>3</td>
</tr>
<tr>
<td>99</td>
<td>0</td>
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<td>00</td>
<td>0</td>
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<tr>
<td>01</td>
<td>0</td>
</tr>
<tr>
<td>02</td>
<td>0</td>
</tr>
<tr>
<td>03</td>
<td>0</td>
</tr>
<tr>
<td>04</td>
<td>0</td>
</tr>
<tr>
<td>05</td>
<td>0</td>
</tr>
<tr>
<td>06</td>
<td>0</td>
</tr>
<tr>
<td>07</td>
<td>0</td>
</tr>
</tbody>
</table>

**Amount of acrylonitride emissions into atmosphere**

<table>
<thead>
<tr>
<th>Year</th>
<th>Emissions (Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>120</td>
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<tr>
<td>96</td>
<td>100</td>
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<tr>
<td>97</td>
<td>80</td>
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<td>98</td>
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<tr>
<td>06</td>
<td>0</td>
</tr>
<tr>
<td>07</td>
<td>0</td>
</tr>
</tbody>
</table>

## Reduction of Industrial Waste

We are tackling the issue of waste products produced during manufacturing on a topic-by-topic basis and achieving steady reductions. The total volume of industrial waste disposed of externally in landfills was 322 tons higher than in the previous year. In particular, a temporary increase in the volume of extracted sludge occurred with the shift to using a single activated sludge tank when PVC production was shutdown at the Takaoka Plant. Volumes at the Kawasaki Plant also increased due to problems with the combustion furnace. At the Minamishima Plant, we have made reductions through the reuse of combination combustion furnace residue. The medium-term target for the amount of industrial waste that is ultimately disposed of in landfills defines an amount 10% or less of the actual disposal volume in 1995 as representing zero emissions. Work is underway in this area and the goal is expected to be achieved by the year 2010. Currently, ongoing investigations into the utilization and incineration of sludge are in progress. ZEON is also working actively to improve sorting in order to encourage recycling and other ways of making effective use of industrial waste.
The entire company is making an effort to reduce discharges and transfer of substances subject to PRTR.

**Discharge and transfer data for substances restricted by law**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Amount Used (tons)</th>
<th>Discharges to Water (tons)</th>
<th>Discharges to Atmosphere (tons)</th>
<th>Total Discharges (tons)</th>
<th>Transfer Volume (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylamide</td>
<td>59.9</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Acrylic acid</td>
<td>96.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ethyl acrylate</td>
<td>2,047.2</td>
<td>2.5</td>
<td>0.0</td>
<td>2.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Methyl acrylate</td>
<td>65.4</td>
<td>0.3</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>26,506.9</td>
<td>20.7</td>
<td>0.0</td>
<td>20.7</td>
<td>139.2</td>
</tr>
<tr>
<td>Acrylic alcohol</td>
<td>22.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1-allyl-oxy-2, 3-epoxy propane</td>
<td>229.9</td>
<td>1.9</td>
<td>0.0</td>
<td>2.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Linear alkylbenzenesulfonate and salt thereof</td>
<td>1,111.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Isopropene</td>
<td>143,942.2</td>
<td>0.7</td>
<td>0.1</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Bisphenol A type epoxy resin</td>
<td>15.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>1,104.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ethyl acrylate epoxide</td>
<td>2.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ethylidenamine tetraacetic acid</td>
<td>65.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Epichlorohydrin</td>
<td>96.4</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Propylene oxide</td>
<td>10.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Xylene</td>
<td>393.8</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>5.4</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>759.2</td>
<td>3.3</td>
<td>0.0</td>
<td>3.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>287.7</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Diphenylamine</td>
<td>8.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1,2-diethyleneimideformamide</td>
<td>486.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Styrene</td>
<td>47,152.6</td>
<td>1.7</td>
<td>0.0</td>
<td>1.7</td>
<td>52.9</td>
</tr>
<tr>
<td>Dioxin*</td>
<td>0.3</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Tetrahydroxydimethyl phthalic anhydride</td>
<td>2,035.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>253.6</td>
</tr>
<tr>
<td>Toluene</td>
<td>4,873.9</td>
<td>0.9</td>
<td>0.0</td>
<td>0.9</td>
<td>148.6</td>
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<tr>
<td>Nickel</td>
<td>48.5</td>
<td>0.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Nickel compound</td>
<td>66.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>2-vinylpyridine</td>
<td>208.7</td>
<td>0.4</td>
<td>0.0</td>
<td>0.4</td>
<td>0.0</td>
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<tr>
<td>Phenoxy</td>
<td>128.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>1,3-butadiene</td>
<td>539,386.8</td>
<td>21.6</td>
<td>0.0</td>
<td>21.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Bis phthalate (2-ethylhexyl)</td>
<td>209.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Benzene</td>
<td>3,434.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Poly(ethylene) alklyether</td>
<td>4.2</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Poly(ethylene) nonylphenyl ether</td>
<td>89.4</td>
<td>0.0</td>
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<td>0.0</td>
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</tr>
<tr>
<td>Formic acid</td>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Maleic anhydride</td>
<td>1,723.4</td>
<td>0.7</td>
<td>0.7</td>
<td>1.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Methacrylic acid</td>
<td>2,020.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Methacrylic acid 3,3-epoxy propyl</td>
<td>6.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Methacrylic acid (n-buty1)</td>
<td>4.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>996.8</td>
<td>3.6</td>
<td>0.0</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>3.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>780,762.9</td>
<td>56.6</td>
<td>1.0</td>
<td>57.6</td>
<td>605.7</td>
</tr>
</tbody>
</table>

*Units of discharges are in g TEQ.
**Benzene is contained as impurities in raw materials.

Note: The PRTR Law specifies the amount in units of “kg” with fractions to 2 significant digits, but the table above shows values in units of tons.

**PRTR Activity**

The PRTR (Pollutant Release and Transfer Register) law applies to 40 substances used at ZEON. Total discharges reduced from 67.8 tons in 2006 to 57.6 tons in 2007. ZEON is working vigorously to reduce discharges.

**Hazardous Chemical Substance and Industrial Waste**

**Reduction of Hazardous Chemical Substance Emissions into the Atmosphere**

We are working actively to reduce emissions, particularly of butadiene and acrylonitrile. Efforts are being made headed by the Chemical Industry Association of Japan 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 benzenes in 2000 and consequently has achieved zero atmospheric emissions. For butadiene, improvements in the utilization of the waste gas combustion equipment at the Kawasaki Plant have reduced emissions by four tons. Further, the company plans to reduce emissions from its monomer recovery process at the Tokuyama Plant during the 2009 financial year. We reduced acrylonitrile emissions by 4.4 tons in 2007 compared to the previous year through measures such as optimizing the monomer recovery system. Further reductions are anticipated due to improvements to the recovery process and changes to the product range.

**Reduction of Industrial Waste**

We are tackling the issue of waste products produced during manufacturing on a topic-by-topic basis and achieving steady reductions. The total volume of industrial waste disposed of externally in landfills was 322 tons higher than in the previous year.

In particular, a temporary increase in the volume of extracted sludge occurred with the shift to using a single activated sludge tank when PVC production was shutdown at the Takaoka Plant. Volumes at the Kawasaki Plant also increased due to problems with the combustion furnace. At the Minamishima Plant, we have made reductions through the reuse of combination combustion furnace residue.

The medium-term target for the amount of industrial waste that is ultimately disposed of in landfills defines an amount 10% or less of the actual disposal volume in 1995 as representing zero emissions. Work is underway in this area and the goal is expected to be achieved by the year 2010.

Currently, ongoing investigations into the utilization and incineration of sludge are in progress. ZEON is also working actively to improve sorting in order to encourage recycling and other ways of making effective use of industrial waste.
Progress on reducing atmospheric pollution includes improvements in SOx and NOx emissions. The Tokuyama Plant has increased purchases of externally supplied steam and the resulting reduction in boiler operating time has been beneficial in lowering emissions of SOx due to heavy oil and thermal NOx. We have been working on measures such as recirculation to reduce total waste water volumes and a small decrease has occurred due to lower production volumes. Waste water quality continues to meet the requirements of the Clean Water Act and agreements with local governments. COD is a measure of organic compounds contained in waste water and although we have been working to reduce COD emissions, the levels remain roughly the same as 2006 due to increased production of product ranges that produce a heavy COD load. Regarding total nitrogen levels in waste water, 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, new nitrogen elimination equipment has been installed to increase the removal of nitrogen from waste water. Although we have succeeded in reducing the total volume of nitrogen discharge across the entire company by 90 tons (or 62% compared to the previous year), we are continuing to work on improvements and better management.

Although 2007 energy use measured in terms of equivalent consumption of crude oil reduced slightly to 96.8% of the previous year’s level, the overall level of production was down to 95.9% of the previous year and therefore the unit consumption index (compared to 1000 levels) went from 92.1% in 2006 to 94.9% in 2007. Although energy saving measures such as high-rate consumption topics

**Energy conservation plan for the Mizushima industrial complex**

At the Mizushima industrial complex precinct, Asahi Kasei Chemicals, ZEON and Nippon Petroleum Refining (the refining arm of ENEXO) have started work on a joint program to save energy by recycling petroleum residue. The project has been adopted to as part of the NE2O Energy Conservation Project Support Scheme. Nippon Petroleum Refining will build a new solvent de-asphalting line at the Mizushima Refinery for extracting kerosene and light oil from asphalt and other heavy oil distillates. The petroleum residue (or pitch) generated by the extraction process will be used as fuel for new boilers to be built by Asahi Kasei Chemicals and ZEON. This will save energy by reducing use of the light oil and other fuels used in the past. It is estimated that this will deliver significant energy savings across the entire industrial complex (equivalent to approximately 88,000 ton of crude oil) and commercial operation is due to commence in July 2009.

**Energy Consumption Associated with Transportation**

Under amendments to the Energy Conservation Law, responsibility for development and implementation of energy-saving strategies rests with the party responsible for requesting transportation of the goods (the consignor or owner of the goods). 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 volumes (including the four production plants and the R&D Center), ZEON is a designated major consigner and the company submitted its regular declaration to the Ministry of Economy, Trade and Industry on June 30, 2008. We will continue in the future to do our very best to conserve energy in distribution as well as in production processes.
Environment and Safety Activity Performance

Air and Water Quality

We are continuing our company-wide 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 increased purchases of externally supplied steam and the resulting reduction in boiler operating time has been beneficial in lowering emissions of SOx due to heavy oil and thermal NOx.

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Resource and Energy Saving

In order to achieve the goal of "reducing the average energy consumption rate for the 2008 to 2012 period to 87% of the 1990 level" set by the Japan Chemical Industry Association, we have held energy conservation promotion meetings throughout the company and have actions in progress.

Although 2007 energy use measured in terms of equivalent consumption of crude oil reduced slightly to 96.8% of the previous year's level, the overall level of production was down to 95.9% of the previous year and therefore the unit consumption index (compared to 1990 levels) went from 92.1% in 2006 to 94.9% in 2007.

Although energy saving measures such as high-rate operation have been adopted, circumstances such as the low utilization caused by halting FCC production at the Takaoka Plant and shorter operating times due to a long shutdown for periodic inspections at the Mizushima Plant and problems with the monomer recovery equipment have meant that these have not been reflected in improvements in the unit consumption index.

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We will continue in the future to do our very best to conserve energy in distribution as well as in production processes.
**Environment and Safety Activity Performance**

**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. Drivers are also given training on the reporting procedures. Training on how to handle products correctly is also performed at each plant to help prevent logistics accidents.

**Environmental Countermeasures for Logistics**

1. **Use of metal containers to pack synthetic rubber products**

   To help prevent deforestation, ZEON has switched to using metal box pallets to pack synthetic rubber. The switch is already complete for export products, and the program to phase-out wooden boxes in domestic distribution commenced in 2005 with the proportion of metal packaging exceeding 80% in 2007.

2. **Amendments to the Energy Conservation Law**

   As a designated major consignor, ZEON is committed to efficiency improvements designed to minimize energy consumption. ZEON has investigated and introduced a variety of strategies in this area, including working with other companies to improve loading ratios and fuel consumption, and modal shifts to railway and marine transport. Following on from the Tokuyama Plant, the Mizushima Plant also received a modal shift commendation from the Central Japan Transportation Bureau in 2007.

**Audits**

We perform a variety of audits to check the implementation status of policies such as our Responsible Care activities.

**ZEON and Affiliate Audits**

**Responsible Care Audits**

Every year, an audit team led by the director in charge of CSR visits plants to perform a Responsible Care audit. The progress of improvements is checked in the audit using the "Specified Improvement Plan and Implementation Report".

**Plant Technology Audits**

A plant technology auditor is appointed to audit the plant equipment for safety and stability during operation at the four plants and at ZEON Chemicals Yonemawo Co., Ltd. at least once a year.

**Affiliate Safety Inspections**

A team led by the head of the Safety Environmental Affairs Department performs a review and offers guidance on the implementation status of Responsible Care activities at affiliates at least once a year.

**PL Audits**

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

**Other Audits and Inspections**

The head of the Safety Environmental Affairs Department performs special audits as required. A special audit by the head of the Safety Environmental Affairs Department is carried out if he deems it necessary when a serious accident, serious security breach, or serious environmental incident occurs. The audit performs an on-site investigation of the causes and makes any necessary improvement recommendations.

**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 EMS Audits**

A regular audit is performed to check the EMS (Environment Management System) implementation status based on the ISO14001 manual. Both internal and external courses are provided at each plant to train employees to be internal auditors.
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Environmental Economic Perspective

Environmental Accounting

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. This environmental accounting report is based primarily on the main items in the Ministry’s “Environmental Accounting Guidebook 2002” and the “Procedures for Environmental Protection Cost Classification” (April 2003).

Environmental Protection Costs

Capital investment for environmental protection

The major investment in pollution prevention during 2007 was the upgrade to the aeration tanks at the Tokuyama Plant. The objective was to increase dissolved nitrogen through improved aeration and thereby reduce total COD volumes. Also, PVC production at the Takaoka Plant was shutdown at the end of the 2007 year. Other improvements included equipment upgrades to optimize waste water loads. A new industrial waste facility at the Kawasaki Plant entered full operation in 2007 to help reduce environmental odors.

The Tokuyama Plant has made an additional investment in replacing wooden containers for packaging synthetic rubber with recyclable metal equivalents to reduce the overall environmental impact of packaging.

As a concrete example of our energy saving efforts, the incinerator at the Kawasaki Plant was modernized to reduce LNG usage. The Tokuyama Plant has also invested in heat recovery from purchased steam and this has succeeded in reducing their total steam usage.

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2007 Environment Accounting Sheet

Energy and Safety Activity Performance

Environment and Safety Activity Performance
Environmental Economic Perspective

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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 level of contaminants such as T-N and COD in waste water.

We have reviewed our Responsible Care Report and are working to supply information to our customers and others through publications such as our CSR reports issued since 2006, with these being treated as environment-related management reports.

Meanwhile, our affiliated group companies have been concentrating on administrative and improvement activities aimed at establishing and maintaining our own environment management systems.

Environmental Protection Effects

**Physical effects**

If the area of atmospheric pollution, a gradual decrease in NOx emissions has been achieved by the upgrade to the incinerator at the Kawasaki Plant and increases in purchased steam at the Tokuyama Plant. SOx emissions are also steadily declining.

Waste water quality continues to meet the requirements of the Clean Water Act and agreements with local governments. As the 2009 target date set in the 6th regulations on total waste water discharges approaches, these rules will extend to include phosphorus and nitrogen also. Improvements including new processing techniques and equipment upgrades are underway to meet these targets.

The aeration tank at the Kawasaki Plant was upgraded in March 2007 and has succeeded in reducing the T-N (Total Nitrogen) content of waste water. Similarly, an upgrade to the aeration tank at the Tokuyama Plant has reduced the total COD volume from 91 tons in 2006 to 81 tons in 2007. Although the total level of COD discharges across the entire company is roughly unchanged due to increased production of products that generate a high level of waste water by products, the medium term trend is for gradual reductions.

The shutdown of PVC production at the Takaoka Plant has eliminated the main source of PVC and ZEON intends to reduce the amount of industrial waste ultimately disposed of in landfill even further in the future.

ZEON is working to reduce discharges of acrylonitrile and butadiene, which are covered by the PRI/TR law, and the company achieved a 14% reduction on the previous year. Further investment in improvements planned for 2008 and beyond should reduce emissions of these to less than one ton each in 2010.

2007 Environment Accounting Sheet

**Environmental Protection Costs (Million Yen)**

<table>
<thead>
<tr>
<th>Classification</th>
<th>ZEON Corporation</th>
<th>Affiliated Group Corporates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>Investment</td>
<td>Expenses</td>
</tr>
<tr>
<td>1. Costs within the business area</td>
<td>900.9</td>
<td>2,704.0</td>
</tr>
<tr>
<td>(1) Pollution prevention costs</td>
<td>789.3</td>
<td>1,997.7</td>
</tr>
<tr>
<td>(2) Global environment protection costs</td>
<td>97.0</td>
<td>228.6</td>
</tr>
<tr>
<td>(3) Resource recycling costs</td>
<td>14.6</td>
<td>477.5</td>
</tr>
<tr>
<td>2. Upstream and downstream costs</td>
<td>149.1</td>
<td>2.5</td>
</tr>
<tr>
<td>3. Management activity costs</td>
<td>0.0</td>
<td>84.6</td>
</tr>
<tr>
<td>4. Research and development costs</td>
<td>39.9</td>
<td>832.9</td>
</tr>
<tr>
<td>5. Social activity costs</td>
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<td>114.9</td>
</tr>
<tr>
<td>6. Environmental damage handling costs</td>
<td>0.0</td>
<td>104.8</td>
</tr>
<tr>
<td>Total</td>
<td>1,089.9</td>
<td>3,843.7</td>
</tr>
</tbody>
</table>

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.

**Economic Effects Associated with Environmental Preservation Measures (million yen)**

<table>
<thead>
<tr>
<th>Item</th>
<th>ZEON Corporation</th>
<th>Affiliated Group Corporates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>Total investment amount within applicable period</td>
<td>33,118</td>
</tr>
<tr>
<td>Total research and development costs within applicable period</td>
<td>11,612</td>
<td>11,801</td>
</tr>
<tr>
<td>Benefits of reclaiming material and utilization as fuel</td>
<td>1,125.0</td>
<td>1,163.9</td>
</tr>
<tr>
<td>Cost reduction through energy savings</td>
<td>82.2</td>
<td>85.0</td>
</tr>
<tr>
<td>Reduction of industrial waste processing costs</td>
<td>0.0</td>
<td>11.0</td>
</tr>
<tr>
<td>Cost reduction through waste-elimination and recovery and reuse of solvents and catalysts</td>
<td>538.6</td>
<td>546.1</td>
</tr>
<tr>
<td>Total</td>
<td>1,745.8</td>
<td>1,806.0</td>
</tr>
</tbody>
</table>
Note that our affiliates also started environment accounting in 2003. Their investment amounts are shown in the chart below.

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 continuing investments in improving safety and eliminating risks. Investments have focused on areas like prevention and damage limitation including significant investments in leak prevention, upgrades to fire fighting equipment and measures for dealing with electrical power outages. The graph below shows the cumulative trend in total environmental and safety investment.
Environment and Safety Activity Performance

Environmental Economic Perspective

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 continuing investments in improving safety and eliminating risks.

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

Note that our affiliates also started environment accounting in 2003. Their investment amounts are shown in the chart below.

Environmental and safety investment Amount

<table>
<thead>
<tr>
<th>2007 Investment Amount (100 Million Yen)</th>
<th>ZEON Corporation</th>
<th>Affiliated Group Companies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment-related</td>
<td>10.9</td>
<td>0.9</td>
<td>11.8</td>
</tr>
<tr>
<td>Safety-related</td>
<td>15.8</td>
<td>0.3</td>
<td>16.2</td>
</tr>
<tr>
<td>Total</td>
<td>26.7</td>
<td>1.3</td>
<td>28.0</td>
</tr>
</tbody>
</table>

Scope of accounts
ZEON Corporation
ZEON Head Office, R&D Center, Takaoka Plant, Kawasaki Plant, Tokuyama Plant, Mizushima Plant
Affiliated Group Companies:
ZEON Kasei Co., Ltd., Ibaraki Plant
Period Covered
April 1, 2007 to March 31, 2008

Site Reports

The site reports describe environmental and safety activities at the R&D Center, four plants in Japan, eleven affiliates and four overseas affiliates.

R&D Center
Takaoka Plant
Kawasaki Plant
Tokuyama Plant
Mizushima Plant
ZEON Kasei Co., Ltd.
ZEON Polymix Co., Ltd.
Optes Inc.
ZEON Chemicals Yonezawa Co., Ltd.
ZEON Logistical Materials Co., Ltd.
RIMTEC Corporation
ZEON Environmental Materials Co., Ltd.
Tokyo Zairyo Co., Ltd.
ZEON Medical Co., Ltd.
ZEON Yamaguchi Co., Ltd.
ZEON North Co., Ltd.
Zeon Chemicals L.P.
Zeon Chemicals Europe Ltd.
Zeon Chemicals(Thailand) Co., Ltd.
Zeon Advanced Polymix Co., Ltd.
R&D Center

The R&D Center plays a central role in the development of technology at ZEON, undertaking research and development to enhance and improve existing products, and into advanced products for various fields including the new field of materials for the electronics and information technology industries. In undertaking this research and development work, the R&D Center takes account of environmental, safety and health considerations from the initial stages of research.

2007 Environment and Safety Activity Policy

(1) Establish safe and stable production technology
(2) Increase awareness of risks 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 environment improvements

Environment and Safety Activities

The R&D Center concentrated on the following activities in line with the 2007 Environment and Safety Policy.

Safety inspections for new experiments
A safety inspection committee must approve all new experiments (introduction of new test equipment, introduction of new handling of chemical substances, etc.) beforehand to ensure that the environment, safety and health are maintained and improved in new technology development work. Prior to conducting the experiment, the applicant conducts a 4R-KI or similar risk assessment of the equipment, procedures, chemical substances, and other considerations to prevent near-miss incidents and equipment problems in new experiments.

Chemical substance handling restrictions and management
With consideration for the environmental, safety and health issues associated with the handling of chemical substances, reliable safety management is ensured by an authorization system managed by the Environment and Safety Unit that applies to the purchase, use and disposal of any particularly poisonous, toxic or dangerous chemical substances.

Reduction of industrial waste
Activities by the R&D Center to reduce industrial waste include fully implementing separate waste collection, encouraging the recycling of waste plastics (which result in high emissions), and encouraging heat recovery. As a result, the amount of industrial waste and industrial landfill are both on a downward trend. We also perform annual inspections to make sure that externally contracted work is being performed correctly.

Environment and Safety Training and Chemical Safety Training

Environment and safety training consists of a combination of classroom-style sessions run by the Environment and Safety Office along with OJT (on the job training) in the workplace. The training program for new and transferred personnel has been expanding since 2002, with further expansion planned. The last few years have seen zero workplace accidents involving new and transferred personnel.

In 2006 there were four workplace accidents involving middle-ranking researchers with around ten years’ experience. The safety training program for middle-ranking researchers has since been upgraded with the result that no accidents or injuries occurred in 2007.

The priority areas for the current financial year are described below.

Environment and safety training programs

1. New employee training (for all employees who joined the company in 2007)
(1) Monthly group training covering safety knowledge and practical skills training (total of 10 times)
(2) “Train the trainer” for OJT instructors of new recruits and recently transferred employees
(3) New recruit training based on facility-specific training programs

2. Level-specific safety training for middle-ranking researchers
(1) Safety training by organizational layer (for newly promoted employees and research leaders)
(2) Hands-on safety training for middle-ranking researchers (outsourced)
(3) Full workforce training
(1) Accident case study training conducted by former plant managers
(2) KYT training by external training providers
(3) Safety training based on the Workplace Injury Elimination Campaign (for all workplaces)

Chemical Safety Training

1. Training on the handling of chemical substance in accordance with MSDSs (for all workplaces)
2. Chemical substance regulations and safety management (for all employees)
3. Chemical substance safety training (for newly promoted employees)
R&D Center

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No accidents or injuries in 2007!

Safety activities proceed side by side with research and development work at the R&D Center, responsible for coming up with new technology for the ZEON group, where environmental and safety activities that take account of the environment, safety and health are conducted from the earliest stages of research and development. The R&D department is working to eliminate accidents and injuries and places a high importance on performing safety audits for new experiments, managing chemical substances and running various safety training. No accidents or injuries occurred during 2007. Further environmental and safety activities are underway to ensure this success in remaining accident and injury free continues in 2008.
Environment and Safety Activities

(1) Reducing Toxic Chemical Emissions

We are making efforts to reduce the amount of emissions through closed process methods and are upgrading our facilities to achieve further reductions in our emissions of un-reacted vinyl chloride monomer during PVC production, and we have achieved the voluntary targets set by the PVC industry association. We are also continuing to reduce emissions of organic solvents used in other manufacturing processes and are investigating new ways of reducing emissions even further.

(2) Reducing of industrial waste

Around 60% of industrial waste from the Takaoka Plant is excess sludge from the waste water treatment facilities. We have introduced new technology to reduce sludge volumes and the volume of waste sent to landfill is being reduced by separating out the resins in the sludge for recycling. We are also working with our waste disposal contractors to recycle materials such as waste plastic, glass and oil. Although the volume of waste sent to landfill increased in 2007, this was due to an increase in treatment volumes leading up to the shutdown of PVC production in March 2008. This fact, along with the commissioning of new waste water treatment equipment should see a reduction in 2008.

(3) Reduction of Air and Water Environmental Burdens

Emission of atmospheric pollutants can vary widely depending on how well boiler operation is integrated with steam requirements in the factory, and stable operation is maintained by managing the plant in such a way as to avoid sudden variations. We aim to prevent the discharge of water pollutants by maintaining appropriate active sludge treatment conditions to ensure the stable operation of our waste water treatment facilities. We are also working on emergency management measures including installing fault detection and emergency shutdown equipment to prevent the discharge of pollutants if an abnormal situation arises.

(4) Resource and energy saving

We are working to meet the target of reducing the average unit energy consumption rate for the 2008 to 2012 period to 90% of the 1990 level. Unit energy consumption achieved the target in 2003 and is on a reducing trend, but although energy use dropped further in 2007, the unit energy consumption actually increased due to lower production. 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 the minimum energy use and by rigorous day-to-day operational management and an awareness of the need for incremental savings.
### Environment and Safety Activities

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### Living Together with the Local Community

**(1) RC dialog**

Five companies from Toyama Prefecture affiliated with JBC held a dialog with the local community on March 1st to describe their daily Responsible Care activities. The day started with the attendees from local councils taking a factory tour and was also attended by numerous people from government, schools, administrative bodies, and non-JBC member companies who were able to learn about the daily activities carried out at the companies.

**(2) Clean-up activities in conjunction with local government**

On May 30th, the plant joined with the local government to hold their fourth "zero trash" day during which they removed weeds and collected empty cans and other litter from nearby streets.

### Topics for 2007

**(1) Establish a car park in front of the plant**

The car park in front of the plant was expanded after consulting with local residents. Although private cars were previously permitted access to the on-site car park, these were moved from the small internal car park to the new car park in front of the plant to improve convenience and make vehicle traffic within the plant safer. The appearance of the site was also enhanced by planting a lawn in the vacant area obtained by reorganizing the bicycle park and small buildings located in one corner of this area.

### Environmental data for the Takaoka Plant

<table>
<thead>
<tr>
<th>Year</th>
<th>00</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>07</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>44,000</td>
<td>45,200</td>
<td>41,600</td>
<td>40,000</td>
<td>38,500</td>
<td>785</td>
<td>686</td>
<td>777</td>
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<tr>
<td>Emission</td>
<td>98</td>
<td>95</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
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<td>PRTR applicable substances</td>
<td>46,146</td>
<td>47,145</td>
<td>42,338</td>
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<td>43,199</td>
<td>1,439</td>
<td>1,311</td>
<td>1,405</td>
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<tr>
<td>Emission</td>
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<td>96</td>
<td>85</td>
<td>85</td>
<td>85</td>
<td>90</td>
<td>90</td>
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<tr>
<td>Industrial waste</td>
<td>7,904</td>
<td>7,969</td>
<td>7,968</td>
<td>7,923</td>
<td>7,914</td>
<td>4,356</td>
<td>3,596</td>
<td>3,775</td>
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<td>CO2 emissions (ton-C)</td>
<td>17,841</td>
<td>16,772</td>
<td>17,494</td>
<td>18,856</td>
<td>17,760</td>
<td>17,567</td>
<td>17,638</td>
<td>16,609</td>
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<td>SOx emissions (ton)</td>
<td>109</td>
<td>100</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
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<tr>
<td>NOx emissions (ton)</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Total drained waste water discharge</td>
<td>5,545</td>
<td>6,158</td>
<td>6,464</td>
<td>6,849</td>
<td>6,441</td>
<td>5,901</td>
<td>6,587</td>
<td>6,918</td>
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<tr>
<td>Waste water</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
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</tr>
<tr>
<td>Total phosphorus discharge (ton)</td>
<td>27,139</td>
<td>24,947</td>
<td>24,482</td>
<td>23,341</td>
<td>27,494</td>
<td>28,692</td>
<td>31,417</td>
<td>28,967</td>
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<tr>
<td>Energy</td>
<td>83%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>75%</td>
<td>83%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Kawasaki Plant

The Kawasaki Plant has a long and successful history. In 1959, it was the first factory in Japan to industrialize “acrylonitrile butadiene rubber”, which is a special synthetic rubber. In the 45 years since then, the plant has been supplying the public with high-quality products as our principal site for synthetic rubber and latex production.

Being located in the Greater Tokyo metropolitan area, the plant is involved in ongoing Responsible Care activities and has an active program of improvement activities aimed at reducing environmental pollution. In 2008, we continued our efforts to be an environmentally friendly plant with further reductions in toxic chemical emissions, atmospheric and water pollution, and industrial waste output.

Environment and Safety Activities

(1) Reduction of Toxic Chemical Emissions

Processing volumes of butadiene, the main raw material in synthetic rubber and synthetic latex, increased due to full-scale operation of the catalytic combustor installed in 2004 and further adoption of closed production processes. Despite this, emissions reduced from 8.5 tons in 2006 to 4.5 tons in 2007. The target for 2008 is to reduce emissions down to 4 tons. Full operation of a new acrylonitrile recovery process commenced in 2005. Since then, the utilization of the recovery system has been further improved. Emissions in 2007 reduced from 24 tons to 20 tons and the target for 2008 is 13 tons. Continuing technical improvements are expected to reduce butadiene and acrylonitrile emissions still further.

(2) Reduction of industrial waste

The plant is working to reduce the volume of industrial waste by sorting waste for collection and by improving reuse of resources (recycling and heat recovery). Although a new incinerator was completed in 2007 and is operating reliably, unfortunately this work resulted in more waste being sent to landfill with an increase from 190 tons in 2006 to 460 tons. The plant will continue to strive to operate the new incinerator reliably and reduce industrial waste volumes.

Environmental Data for the Kawasaki Plant

<table>
<thead>
<tr>
<th>Year</th>
<th>00</th>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
<th>07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butadiene consumption (tons)</td>
<td>20,848</td>
<td>29,058</td>
<td>27,335</td>
<td>28,976</td>
<td>30,720</td>
<td>29,694</td>
<td>25,279</td>
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<tr>
<td>Butadiene emissions (tons)</td>
<td>75</td>
<td>75</td>
<td>52</td>
<td>53</td>
<td>63</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Acrylonitrile consumption (tons)</td>
<td>10,357</td>
<td>12,367</td>
<td>11,859</td>
<td>11,589</td>
<td>11,395</td>
<td>11,690</td>
<td>12,005</td>
<td></td>
</tr>
<tr>
<td>Acrylonitrile emissions (tons)</td>
<td>17</td>
<td>16</td>
<td>15</td>
<td>17</td>
<td>19</td>
<td>21</td>
<td>24</td>
<td></td>
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<tr>
<td>PMR applicable Substances</td>
<td>63,273</td>
<td>57,429</td>
<td>52,839</td>
<td>55,549</td>
<td>58,171</td>
<td>59,001</td>
<td>59,785</td>
<td></td>
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<tr>
<td>Industrial waste</td>
<td>46,816</td>
<td>41,026</td>
<td>37,731</td>
<td>40,447</td>
<td>45,782</td>
<td>59,001</td>
<td>59,001</td>
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</tr>
<tr>
<td>CO2 emissions (tons)</td>
<td>20,911</td>
<td>20,836</td>
<td>19,894</td>
<td>20,490</td>
<td>20,092</td>
<td>20,836</td>
<td>20,836</td>
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<tr>
<td>NOx emissions (tons)</td>
<td>21,966</td>
<td>20,345</td>
<td>17,937</td>
<td>20,846</td>
<td>21,490</td>
<td>20,836</td>
<td>20,836</td>
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</tr>
<tr>
<td>SO2 emissions (tons)</td>
<td>13,911</td>
<td>12,588</td>
<td>12,926</td>
<td>12,977</td>
<td>13,077</td>
<td>13,815</td>
<td>13,815</td>
<td></td>
</tr>
<tr>
<td>Waste water discharge (1,000m3)</td>
<td>2,006</td>
<td>1,933</td>
<td>1,871</td>
<td>2,008</td>
<td>2,008</td>
<td>2,008</td>
<td>2,008</td>
<td></td>
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<tr>
<td>CO emissions (tons)</td>
<td>1,906</td>
<td>1,906</td>
<td>1,906</td>
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<td>1,906</td>
<td>1,906</td>
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</tr>
<tr>
<td>Hard solids discharge (tons)</td>
<td>73,448</td>
<td>71,001</td>
<td>71,001</td>
<td>71,001</td>
<td>71,001</td>
<td>71,001</td>
<td>71,001</td>
<td></td>
</tr>
<tr>
<td>CO2 emissions (tons)</td>
<td>29,876</td>
<td>28,886</td>
<td>28,886</td>
<td>28,886</td>
<td>28,886</td>
<td>28,886</td>
<td>28,886</td>
<td></td>
</tr>
</tbody>
</table>

(3) Reduction of Air and Water Environmental Burdens

To reduce atmospheric pollution, we are working to maintain reliable operation of our new incinerator to reduce emissions of nitrogen oxides, carbon monoxide, soot, and other pollutants.

To reduce water pollution, we have been studying how to operate the new waste water treatment tanks we added in 2006 and these entered full operation in 2007. As a result, we succeeded in improving the total nitrogen removal rate from 30% to more than 50%. Our aim in 2008 is to optimize the operating practices further and raise this rate even higher.

(4) Resource and energy saving

We are working to meet the target of reducing the average unit energy consumption rate for the 2008 to 2012 period to 87% of the 1990 level. Although improvements have already been achieved through large-scale investments including an upgrade to our cogeneration facilities, we are continuing to work on further improvements despite greater energy use at our non-production facilities and the operation of equipment that improves our environmental performance.

Living Together with the Local Community

(1) With the aim of being a plant that is open to the community, we received visitors from both Japan and overseas and invited neighboring companies, neighborhood association committees, and others to join us in plant welfare initiatives.

(2) With the aim of being a plant that is rooted in the local community, we conducted clean-ups of the area around the plant as part of our program of beautification work. In 2007, these were conducted in cooperation with neighboring companies.

(3) Twice a year, we carry out emergency drills in cooperation with the emergency services to practice dealing with accidents and injuries. We also undertook an initial exercise in cooperation with the public fire fighting and other emergency services.

Our aim is to be open to the community

Our aim as a factory is to be rooted in the local community and open to the public. We are also striving to make our plant environmentally friendly.
Environment and Safety Activities

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(2) With the aim of being a plant that is rooted in the local community, we conducted clean-ups of the area around the plant as part of our program of beautification work. In 2007, these were conducted in cooperation with neighboring companies.

Our aim is to be open to the community
Our aim as a factory is to be rooted in the local community and open to the public. We are also striving to make our plant environmentally friendly.

Kazufumi Suzuki
Manager, Environment and Safety Unit

Environmental Data for the Kawasaki Plant

<table>
<thead>
<tr>
<th>Year</th>
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Amount of carbon equivalent

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<td>108</td>
<td>109</td>
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<td>111</td>
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</table>

Amount of carbon equivalent
Environment and Safety Activities

(1) Reduction of Toxic Chemical Emissions
Equipment to burn waste gas produced by the plant in the boiler has been installed with the aim of significantly reducing atmospheric emissions of toxic substances. The plant is committed to performing more activities to further reduce emissions.

(2) Reduction of Industrial waste
Our zero-emission target for reducing landfill disposal of industrial waste is set at 80 tons or less, this being 10% of the 1995 figure of 800 tons. Thanks to improvements aimed at achieving this target, we have surpassed it and succeeded in reducing the volume down to 77.4 tons.

(3) Reduction of Air and Water Environmental Burdens
Improvements and will strengthen management to elsewhere have seen a year-by-year reduction in emissions of COD and total nitrogen. An upgrade to the waste water treatment equipment in February 2008 is expected to bring a further reduction in emissions.

(4) Resource and energy saving
Although we are working to bring the skills of the entire workforce to bear on the objective of reducing the average unit energy consumption rate for the 2008 to 2012 period to 87% or less of the 1990 level, we have yet to achieve this target. We are continuing to work day and night to look at energy saving from every different angle, including the introduction of revolutionary new technology.

Living Together with the Local Community

(1) Summer Festival (Japanese dance)
Japanese dance is a regular event at the Tokuyama Plant and has an established place in the community where it is a highly valued opportunity to mix with local residents. Although this year’s event was threatened with heavy rain, the rain abated just one hour before the proceedings were due to start and even though the dancing was cancelled, the bazaar proved even more popular than in the past.

(2) Fifty-five employees volunteer for Higashi-gawa river clean-up campaign
An annual clean-up is held for the Higashi-gawa river that runs past the plant. The river clean-up (which involves 400 to 500 people) is organized by the local government and ZEON has been volunteering its help for the last three years. Much sweat has gone into working alongside local residents to tidy up the river. Many thanks were received from the local residents which helped the volunteers feel a stronger bond with the community.
Tokuyama Plant

The Tokuyama Plant started operations in 1965. 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 plant was the first in the world to produce polymerized toner commercially and has successfully expanded production, with further equipment to be installed to meet strong demand.

The plant is committed to performing more activities to further reduce emissions.

(2) Reduction of Industrial waste

Our zero-emission target for reducing landfill volume down to 77.4 tons.

Burdens

1) Air

Boiler has succeeded in reliably reducing SOx and NOx emissions. We are planning further improvements and will strengthen management to ensure that these low levels are maintained in the future.

2) Water

Improvements in waste water treatment and emissions of COD and total nitrogen. An upgrade to the waste water treatment equipment in February 2008 is expected to bring a further reduction in annual trend figures in the various environmental burdens.

(4) Resource and energy saving

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Environmental Data for the Tokuyama Plant

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Mizushima Plant

Mizushima 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 our butadiene extraction 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 requirements with products derived from our “CS Fraction Total Use Business” which include optical material resins (used in LCD displays, optical disks, camera lenses, CD pickups and elsewhere), aromatic chemicals (including Jasmonic and green note chemicals), and petroleum resins (including binder for traffic paint and adhesive tape).

Topics

Mizushima Plant rigorously pursues safe and reliable production through the application of innovative technology and aims to be a plant that is always trusted by the local community. As part of this effort, the plant constructed a new Integrated Production Center (IPC) in November 2007. In the first phase of this plan, we relocated approximately half of our previously scattered production departments to the IPC in April 2008 to take the load off the plant and to standardize and systematize our operations including the operational know-how of our experienced staff. Also, for its ease of use by the elderly and disabled, the Integrated Production Center was certified as a “complaint facility” under the “Kurashiki City Public Welfare Infrastructure Regulations” in the city building code.

Environment and Safety Activities

The plant works to create a safe and stable workplace by following the Plant Manager’s “ABC Safety System” (being sure to perform the basics properly).

(1) Reduction of industrial waste
ZEON is one of the investors in Mizushima Industrial Zone in Kurashiki City. Starting with the development of environmental strategies including measures to reduce VOC emissions.

(2) Reduction of toxic chemical emissions
The plan discontinued the use of benzene in 2001 and succeeded in achieving zero emissions of butadiene in 2002 after switching to a closed processing system with recovery. We are dedicated to ongoing development of environmental strategies including measures to reduce VOC emissions.

(3) Reduction of Air and Water Environmental Burdens
Improved management of the waste water produced by the individual facilities has helped minimize load fluctuations at the waste water treatment plant, thereby enabling better treatment of waste water.

(4) Resource and energy saving
We are working to meet the target of reducing the average unit energy consumption rate for the 2008 to 2012 period by 8% of the 1990 level. Although this work only achieved a consumption rate of 0% of the 1990 level in 2007, an upgrade to a large plant heat recovery system in March 2008 is expected to show its benefits in the 2008 result. We are planning further reductions in unit energy consumption including reducing steam use and working on heat recovery strategies.

We have also switched delivery of some products from truck to rail. This shift to a different transportation mode is aimed at reducing the burden on the environment through more efficient transportation in the product delivery process. As a result, we received a “Mode Shift Shipper Excellence Award”

Living Together with the Local Community

The plant’s objective is to “create a plant that is trusted by the local community”. It has an active involvement with the community, including supporting and participating in the events of residents’ associations, and public activities such as meetings to report business activities and meetings to explain plans for new facilities. Further, the plant joins with neighboring companies in the Mizushima Industrial Zone to perform joint disaster planning to reassure the people living in the local community.

We served as the regional sponsor for Okayama in the Responsible Care Local Area Dialogue Meeting in 2007, held factory visits and walking tours with local residents and helped in local clean-up campaigns around the factory and in surrounding areas. We are nurturing closer integration with the local area through joint public-private-academic sector initiatives such as factory tours of the Mizushima Plant and classroom sessions entailing the importance and fun of science for the benefit of science students at the Kurashiki Amagi prefectoral high school in Okayama Prefecture (which is designated as a Super Science High School2 under a Ministry of Education, Culture, Sports, Science and Technology program). These initiatives, which continue in 2008, are designed to stimulate an interest in science and technology among young people.

Complying with environmental standards and creating a plant that is trusted by the community
Nurturing and protecting the beautiful natural environment of the Seto Inland Sea is an important duty for our plant. Complying with environmental standards and making steady improvements on past performance under the first steps to winning the trust of the community and this is something we intend to continue.

Energy

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PITR applicable Substances

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Industrial waste

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Atmospheric emissions

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Disposal in landfill (tons)

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Waste produced before reductions (tons)

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<td>Amount of carbon equivalent</td>
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Waste produced after reductions (tons)

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Amount of carbon equivalent

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<tr>
<td>Amount of carbon equivalent</td>
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Note: The above data reflect the amount of carbon dioxide equivalent (

Hiroshi Takegami
Director and Corporate Officer
Plant Manager, Mizushima Plant

Ryujiro Kinoshita
Environmental Officer
Environment and Safety Section

Message

Performance

Site Report

Site Report

CSR Report

Directory

Manage

Site Reports

Site Reports

Site Reports

Ryujiro Kinoshita
Environmental Officer
Environment and Safety Section
Mizushima Plant

Mizushima 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 our butadiene extraction 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 various requirements with products derived from our “CS Fraction Total Use Business” which include optical material resins (used in LCD displays, optical disks, camera lenses, CD pickups and elsewhere), aromatic chemicals (including jasmine and green note chemicals), and petroleum resins (including binder for traffic paint and adhesive tape).

Topics

Mizushima Plant rigorously pursues safe and reliable production through the application of innovative technology and aims to be a plant that is always trusted by the local community. As part of this effort, the plant constructed a new Integrated Production Center (IPC) in November 2007. In the first phase of this plan, we relocated approximately half of our previously scattered production departments to the IPC in April 2008 to take the load off the plant and to standardize and systematize our operations including the operational know-how of our experienced staff. Also, for its ease of use by the elderly and disabled, the Integrated Production Center was certified as a "compliant facility" under the "Kurashiki City Public Welfare Infrastructure Regulations" in the city building code.

Environment and Safety Activities

The plant works to create a safe and stable workplace by following the Plant Manager's "ABC Safety System" (being sure to perform the basics properly).

(1) Reduction of industrial waste

ZEON is one of the investors in Mizushima Ecoworks(*1), a waste processing facility based on resource recycling that started operation in 2005. Since then, the volume of waste ultimately disposed of in landfill has been dramatically reduced from 1,032 tons in 2004 to only 19 tons in 2007. We also continue to use the 3Rs (reduce, reuse and recycle) to reduce waste further.

*1 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 10 companies from the industrial complex.

(2) Reduction of toxic chemical emissions

The plant discontinued the use of benzene in 2001 and succeeded in achieving zero emissions of butadiene in 2002 after switching to a closed processing system with recovery. We are dedicated to ongoing development of environmental strategies including measures to reduce VOC emissions.

(3) Reduction of Air and Water Environmental Burdens

Improved management of the waste water produced by the individual facilities has helped minimize load fluctuations at the waste water treatment plant, thereby enabling better treatment of waste water.

(4) Resource and energy saving

We are working to meet the target of reducing the average unit energy consumption rate for the 2008 to 2012 period to 87% of the 1990 level. Although this work only achieved a consumption rate of 96% of the 1990 level in 2007, an upgrade to a large plant heat recovery system in March 2008 is expected to show its benefits in the 2008 result. We are planning further reductions in unit energy consumption including reducing steam use and working on heat recovery strategies.

We have also switched delivery of some products from truck to rail. This shift to a different transportation mode is aimed at reducing the burden on the environment through more efficient transportation in the product delivery process. As a result, we received a "Mode Shift Shipper Excellence Award".

Ecoworks(*1), a waste processing facility based on resource recycling that started operation in 2005. Since then, the volume of waste ultimately disposed of in landfill has been dramatically reduced from 1,032 tons in 2004 to only 19 tons in 2007. We also continue to use the 3Rs (reduce, reuse and recycle) to reduce waste further.

*1 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 10 companies from the industrial complex.

Living Together with the Local Community

The plant’s objective is to “create a plant that is trusted by the local community”. It has an active involvement with the community, including supporting and participating in the events of residents’ associations, and public activities such as meetings to report business activities and meetings to explain plans for new facilities. Further, the plant joins with neighboring companies in the Mizushima Industrial Zone to perform joint disaster planning to reassure the people living in the local community.

We served as the regional sponsor for Okayama in the Responsible Care Local-Area Dialogue Meeting in 2007, held factory visits and walking tours with local residents and helped in local clean-up campaigns around the factory and in surrounding areas. We are nurturing closer integration with the local area through joint public-private-academic sector initiatives such as factory tours of the Mizushima Plant and classroom sessions extolling the importance and fun of science for the benefit of science students at the Kurashiki Amagi prefectoral high school in Okayama prefecture (which is designated as a Super Science High School*2 under a Ministry of Education, Culture, Sports, Science and Technology program). These initiatives, which continue in 2008, are designed to stimulate an interest in science and technology among young people.

*2 A program run by the Ministry of Education, Culture, Sports, Science and Technology which acknowledges high schools with a strong focus on science and math subjects. The program is designed to identify and nurture the potential leading scientists of the future.

Complying with environmental standards and creating a plant that is trusted by the community Nurturing and protecting the beautiful nature of the Seta Inland Sea is an important duty for our plant. Complying with environmental standards and making steady improvements on past performance underlie the first steps to winning the trust of the community and this is something we intend to continue.

Ryujiro Kinoshita
Environmental Officer
Environment and Safety Section
**Affiliate Activities**

**ZEON Kasei Co., Ltd**

In 1981 the Manufactured Goods Division of ZEON was made independent and established as ZEON Kasei Co., Ltd. The company has grown steadily since then and has taken the lead role within the ZEON group in the field of manufactured goods.

**Environment and Safety Activities, and Related Topics**

Retrofitted insulation using ZEON Siding* (reducing the burden on the environment) because of the high cost of winter heating, home builders in Hokkaido are doing their utmost to improve the Q value (heat loss coefficient) for homes and reduce CO2 emissions.

ZEON Siding* is a plastic siding (cladding) material produced from PVC with features that include excellent durability and light weight during building work. These benefits have seen the product being widely adopted as an exterior cladding material for retrofitted insulation where the insulation is fitted externally (attached to the outside of the building), not only for homes but also for small to medium sized buildings. The photograph shows the Odori Iaimu building in Sapporo, Hokkaido where ZEON Siding has been used to retrofit insulation.

**Company Profile**

**Name**: ZEON Kasei Co., Ltd.
**Established**: October 1, 1981
**Capital**: 192.5 million yen
**Number of Employees**: 83 (Ibaraki ZEON Kasei Co., Ltd.: 97)
**Head Office**: 1-6-2, Marunouchi, Chiyoda-ku, Tokyo 100-0005
**Head Office Telephone**: 03-5208-5111 FAX: 3-5208-5290
**Locations**: Ibaraki Plant (Ibaraki ZEON Kasei Co., Ltd.), Kokusei
**Main business**: Synthetic resin compounds, time, surface emission materials, heat dissipation materials, construction materials, packing materials and deodorants
**Ibaraki ZEON Kasei Co., Ltd. is a wholly owned subsidiary of ZEON Kasei Co., Ltd. and is a contract manufacturer for ZEON Kasei Co., Ltd.**

**Activities with the Local Community**

Ibaraki plant emergency response drill (occupational health and safety)

The Ibaraki plant held a simultaneous emergency response drill on November 26, 2007. The drill was carried out under the instruction of the local Bando Fire Department (Seinan Fire Fighting Corporation). The drill allowed employees to practice using dry-chemical fire fighting equipment. Following on from the previous year, this was the second emergency response drill to be held in conjunction with the local fire department and we hope they will continue. A drill using hoses is planned for 2008.

Iwai Masakado Half-Marathon (region, community)

The Iwai Half-Marathon held in Bando on November 11, 2007 included two participants from our Ibaraki plant. Although the day of the race was marred by rain, both competitors completed the race without incident.

**Gaining the trust of customers**

We are responsible for putting in place the environmental, quality and safety systems that allow us to deliver products that further improve customer satisfaction based on a quality policy of “contributing to society by supplying manufactured products that satisfy our customers through continuous improvement”.

**Katsunori Sato**

**Environment, Safety and Quality Group, Engineering Department**

**ZEON Polymix Co., Ltd**

ZEON Polymix Co., Ltd. was first established as Kinki Rubber Processing Co., Ltd. in 1967 in order to expand into the carbon master batch (CM) field as a part of the ZEON’s rubber business development. In 1989 it merged with Higashi Rubber Processing Co., Ltd. and changed its name to ZEON Polymix Co., Ltd. The CM produced at ZEON Polymix is used widely with applications that include parts for office and industrial equipment, especially automotive parts, and lifestyle and leisure products.

ZEON Polymix has established a “SHQMBI strategy” that covers the requirements for safety and health, environmental, and quality management systems. This involves specific activities aimed at achieving targets based on each year’s President’s strategy. The slogan for the President’s strategy in 2008 is “let’s make ZEON Polymix a high-quality company”. Based on this slogan, specific targets have been set for the entire company for short-term business objectives, medium-term business objectives and strengthening business fundamentals respectively. The following items describe the measures being taken based on the medium-term business objectives of ‘improving the work environment’ and ‘putting systems in place to eliminate the causes of CM quality defects’.

**Kawagoe plant**

Establishing a workplace environment that makes working easy

The item below describes what Kawagoe plant has done to set up appropriate production lines to provide its employees with a workplace environment that makes working easy. A key element was the completion of a meeting room where the people who work at the plant can gather in a single venue.

**Activities aimed at eliminating quality claims**

In response to the 2008 President’s strategy of “putting systems in place to eliminate the causes of CM quality defects”, the Otsu Plant has undertaken a “3S, 3-Tei, Visibility” program aimed at eliminating quality claims. One category of claims relates to contamination with impurities but the cause is not well understood. This was due to lax management of the production line. We started an improvement activity that allows us to see the status of manufactured items at a glance and it is gradually proving its worth.

The embeddedness of the “3S, 3-Tei, Visibility” program is checked by the monthly quality patrol and we have put considerable effort into ensuring that we are thorough in the other two Ss (Seiketsu (hygiene) and Shitsuke (discipline)) also. By adopting these measures, our aim is to upgrade the production lines we administer and eliminate quality claims.
In 1981 the Manufactured Goods Division of ZEON was made independent and established as ZEON Kasei Co., Ltd. The company has grown steadily since then and has taken the lead role within the ZEON group in the field of manufactured goods.

Environment and Safety Activities, and Related Topics

Retrofit insulation using ZEON Siding® (reducing the burden on the environment)

Because of the high cost of winter heating, home builders in Hokkaido are doing their utmost to improve the Q value (heat loss coefficient) for homes and reduce CO₂ emissions.

ZEON Siding® is a plastic siding (cladding) material produced from PVC with features that include excellent durability and light weight during building work. These benefits have seen the product being widely adopted as an exterior cladding material for retrofit insulation where the insulation is fitted to the wall, used to retrofit insulation where the insulation is fitted to the roof, and widely adopted as an exterior cladding material for buildings.

ZEON Siding® is produced from PVC with features that include high water resistance, dimensional stability, excellent durability, and easy to assemble and to apply. It is widely used for the purpose of reducing the burden on the environment by reducing the amount of heat lost through buildings.

ZEON Kasei operates an integrated quality assurance system that covers production, sales and engineering and will continue to supply products that satisfy customers.

Gaining the trust of customers

We are responsible for putting in place the environmental, quality and safety systems that allow us to deliver products that further improve customer satisfaction based on a quality policy of “contributing to society by supplying manufactured products that satisfy our customers through continuous improvement”.

Affiliate Activities

ZEON Kasei Co., Ltd

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Kawagoe plant

Establishing a workplace environment that makes working easy

The item below describes what Kawagoe plant has done to set up its production lines to provide its employees with a workplace environment that makes working easy. A key element was the completion of a meeting room where the people who work at the plant can gather in a single venue.

Meeting room strengthens communication

The Kawagoe plant is overhauling its production line and infrastructure based on the 2008 President’s strategic plan of “improving the work environment.” To prevent problems due to inadequate day-to-day communications, a meeting room large enough for the entire production department was completed in June. Air showers have also been installed based on environmental and hygiene considerations. The meeting room is always kept clean and is used extensively for internal meetings, handover meetings, and as a place to go during breaks.

Activities with the Local Community

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Katsunori Sato

Environment, Safety and Quality Group, Engineering Department

Activities aimed at eliminating quality claims

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The embeddedness of the “3S, 3T, Visibility” program is checked by the monthly quality patrol and we have put considerable effort into ensuring that we are thorough in the other two Ss (Seiketsu (hygiene) and Shitsuke (discipline)) also. By adopting these measures, our aim is to upgrade the production lines we administer and eliminate quality claims.
Optes Inc.

Optes Inc. was established in 1990 as a joint venture between ZEON and Sekinos Co., Ltd., as a strategic partner of a cyanoelastomer polymer that had been developed by ZEON. In 1997, Optes Inc. became a wholly-owned subsidiary of ZEON. The company’s products (which include ZEONOR™ film, ZEONOR® diffusion panels, large aspheric mirrors, lenses and prisms) are derived from advanced technology and are highly regarded in the optics industry.

Company motto
“Applying our sincerity, ingenuity and enthusiasm to make Optes an international company in which every employee can take pride”

Management creed
“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”

Noritsuki Wakaotsu
President

Environment and Safety Activities, and Related Topics

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. The electricity it produces is put to good use.

Environment and Safety Activity Topics
Optes received numerous awards for its health and safety activities in 2007 at the All ZEON Safety Conference. The company will continue to strive to achieve 100% yield with zero accidents and zero injuries, while maintaining a strong emphasis on safety, environment and quality.

Supping distinctive products that are friendly to the environm
Our products are engineered for energy conservation from the design stage and contribute to reducing CO2 emissions. We will continue to work at contributing to the world by coming up with products that are friendly to the environment.

Living Together with the Local Community

Himi Production Division participated in a community clean-up of the roads organized by the local government which provided the opportunity to contribute to the community and communicate with local residents.

Participation in local volunteer clean-up campaign
To express our thanks to the community on the tenth anniversary of our foundation, a volunteer clean-up campaign was organized for the vicinity of the Uesugi Shrine.

We’re looking after nature!
Living amongst the natural beauty of Yonezawa makes us particularly conscious of environmental protection. We are working every day with the aim of being number one in our region for the environment and safety.

Hiroshi Fujisawa
President
ZEON Chemicals Yonezawa Co., Ltd.

ZEON Chemicals Yonezawa Co., Ltd. was established in 1996 to produce fine chemical products and commenced production of synthetic aromatic chemicals using leaf alcohol as the main raw material. Since 1998 it has also been producing liquid compounds for reaction injection molding that use dicyclopentadiene as their main raw material. Also, the opening of ZEON’s new chemical research buildings in April 2006 has lead to growth in contract research and development work. In 2007, the company celebrated the tenth anniversary of its founding.

Environment and Safety Activities, and Related Topics
ISO activities
The company received ISO9001 and ISO14001 accreditation in June 2006 and has related activities ongoing. Environmental activities have included work on reducing waste drums, paper and other refuse.

Safety training
ZE/CT aims to achieve zero injuries based on a “can-do” spirit by conducting training programs such as point and shoot training, 4R/KY training and forklift safety training that allow work to be done more safely.

Living Together with the Local Community
Sponsorship of the Yonezawa Snow Lantern Festival
Since 1999, ZEON Chemicals Yonezawa has supported the snow lantern festival, which is a traditional winter event in Yonezawa. Both employees and their families come together every year to build two snow lanterns. Although no snow lanterns were built last year due to an absence of snow brought on by the unusually warm winter, we were able to participate as normal this year.

President
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Environment and Safety Activities, and Related Topics
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ZEO Logistical Materials Co., Ltd.

ZEO Logistical Materials Co., Ltd. was previously a part of ZEO Kasei Co., Ltd., a company formed in 1981 from what was previously the Manufactured Goods Division of ZEO. In 2003, ZEO Kasei Co., Ltd. decided to turn out its logistical materials business and so established ZEO Logistical Materials Co., Ltd. One of the company’s main products is a returnable container called “STEC®”. This ground breaking logistics tool is highly regarded in a range of industries and makes a significant contribution to environmental protection as well as delivering economic benefits by streamlining storage and management while reducing the cost of packing and cargo handling.

Exhibit at 2007 FPD Show

ZEO Logistical Materials was represented at the 2007 FPD Show with an exhibit that focused on roller-transportable STEC™ containers and promoted the company’s new product development capabilities and the high quality of its STEC™ products. The booth received approximately 400 visits over the three-day show.

The STEC™ range is highly regarded by customers for its resource-efficient and space-saving characteristics that include being collapsible, returnable and stacking.

Development and Marketing of Environmentally-friendly Products

ZEO Logistical Materials is developing new returnable containers and containers for PET bottles and storage of preforms (products that are pre-formed prior to blow molding) products, and containers based on the marketing design concepts of being (1) lightweight, (2) low-cost, (3) resource-efficient, (4) easy to use, (5) durable, (6) designed to withstand compression and (7) stackable. The company supplies returnable containers that are designed to weigh 25% less than previous containers, require fewer resources (which is reflected in their cost), and have the durability and ability to withstand compression that make them easy to use.

RIMTEC Corporation

RIMTEC Corporation was formed from the merger of the RIM Division of ZEO with Tejin Metton Co., Ltd. The company supplies the PENTAM® and METTON® compounded aids for reaction injection molding using dicyclodipentene as the main raw material.

Providing environmentally-friendly molding liquid compounds and molded products

RIMTEC holds dicyclodipentene as its main component combines a strength equivalent to general-purpose engineering plastic with the high productivity of the reaction injection molding method of production. Components formed from this material consist entirely of hydrocarbons which means they can be used as a clean source of heat energy because the volume of dioxins produced when they are incinerated is very low.

The reaction injection molding technique is also much cleaner than standard injection molding in terms of atmospheric pollution because it eliminates the processes from drying to re-melting.

Main applications for reaction injection molded products

RIMTEC has launched a series of products made from newly developed compounds with a high level of thermostability.

Environmental Topics

RIMTEC is working to develop new high-rigidity compounds that can be used as a substitute in products that previously used FRP (fiberglass reinforced plastic), a substance that is difficult to recycle.

Other CSR Activities

• Passed the regular ISO14001 inspection (August)
• Passed the regular ISO14001 inspection (August)
• Exhibit at the America Show (July)
• Held molders day (November)

Product development that puts the environment first

We strive to develop products that are friendly to the environment. We will continue to work wholeheartedly to create new products.

Yasushi Tanaka
R&D Center Manager
**ZENON Logistical Materials Co., Ltd.**

ZENON Logistical Materials Co., Ltd. was previously a part of ZENON Kasei Co., Ltd, a company formed in 1981 from what was previously the Manufactured Goods Division of ZENON. In 2003, ZENON Kasei Co., Ltd. decided in turn to spin off its logistical materials business and so established ZENON Logistical Materials Co., Ltd. One of the company’s main products is a returnable container called “STECC®”. This ground breaking logistics tool is highly regarded in a range of industries and makes a significant contribution to environmental protection as well as delivering economic benefits by streamlining storage and management while reducing the cost of packing and cargo handling.

**Exhibit at 2007 FPD Show**

ZENON Logistical Materials was represented at the 2007 FPD Show with an exhibit that focused on roller transportable STECC™ containers and promoted the company’s product development capabilities and the high quality of its STECC™ products. The booth received approximately 400 visitors over the three-day show.

The STECC™ range is highly regarded by customers for its resource-efficient and space-saving characteristics that include being collapsible, returnable and stackable.

![ZENON Logistical Materials Co., Ltd. Logo]

**Company Profile**

- **Name**: ZENON Logistical Materials Co., Ltd.
- **Established**: July 1, 2003
- **Capital**: 100 million yen
- **Head office**: 1-8-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 (Shin-Marunouchi Center Building) TEL 03-5208-5167 FAX 03-5208-5296
- **Locations**: Yamaguchi plant, Shunan plant
- **Main business**: Design, production and sales of STEC™ box containers and maintenance of returnable container products

**Development and Marketing of Environmentally-friendly Products**

ZENON Logistical Materials is developing new returnable containers and containers for PET bottles and storage of preforms (products that are pre-formed prior to blow molding) products, and containers based on the marketing design concepts of being (1) lightweight, (2) low-cost, (3) resource-efficient, (4) easy to use, (5) durable, (6) designed to withstand compression and (7) safe.

The company supplies returnable containers that are designed to weigh 25% less than previous containers, require fewer resources (which is reflected in their cost), and have the durability and ability to withstand compression that make them easy to use.

Shunan plant

Shunan plant was established in July 2005 as a dedicated facility for maintenance of synthetic rubber containers. The plant aims to be a safe and reliable supplier that coexists harmoniously with the local community and has a strong environmental emphasis demonstrated by its target of 100% recycling.

Focusing on "creating" rather than "making!"

We manufacture and sell collapsible and returnable containers based on our quality strategy of "creating STEC™ products that we ourselves delight in using."

![Shunan plant]

**Environment Topics**

ZENON Logistical Materials is developing new high-quality compounds that can be used as a substitute in products that previously used FRP (fiberglass reinforced plastic), a substance that is difficult to recycle.

**ZENON Logistical Materials Co., Ltd.**

[Image of ZENON Logistical Materials Co., Ltd.]

**RIMTEC Corporation**

RIMTEC Corporation was formed from the merger of the RIM Division of ZEON with Teijin Metton Co., Ltd. The company supplies the PENTAM® and METTON® compounds and guides for reaction injection molding using dicyclopentadiene as the raw main material.

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**Company Profile**

- **Name**: RIMTEC Corporation
- **Established**: August 1, 2003
- **Capital**: 200 million yen
- **Head office**: 4-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 (Shin-Marunouchi Center Building) TEL 03-5208-5167 FAX 03-5208-5261
- **Locations**: Yamaguchi plant, Shunan plant
- **Main business**: Liquid compounds for reaction injection molding (RIM) using dicyclopentadiene as the raw main material, and compounds formed from these compounds using RIM

**Living Together with the Local Community**

- Cherry-blossom viewing with affiliate employees and their families (April)
- Cleaning the Takashima Harbor Road (June)
- ZEON Maruzshima Summer Festival (August)

**Environmental Topics**

RIMTEC is working to develop new high-quality compounds that can be used as a substitute in products that previously used FRP (fiberglass reinforced plastic), a substance that is difficult to recycle.

**RIMTEC Corporation**

[Image of RIMTEC Corporation]

**Product development that puts the environment first**

We strive to develop products that are friendly to the environment. We will continue to work wholeheartedly to create new products.

![Yasushi Tanaka, R&D Center Manager]
ZEOON Environmental Materials Co., Ltd.

Environmental Activities
- Despite its name, the Earth is often described as a water world and currently faces major environmental problems. The proportion of the world's water that is available for use by people is only 0.01%. We are contributing to protecting and improving the world's limited water resources by marketing and installing our "PENTAM" purification septic tanks to households.
- Purification septic tanks are an appropriate product for a society based on recycling because they work by purifying toilet and other waste water from the home and then discharging it back into the environment.
- The objective is to recycle the earth's water, maintain flows in river systems and restore the natural environment by returning the processed water to the environment.
- Fireflies are slowly returning to the built-up areas of Kurashiki City.

Living Together with the Local Community
- We invited local residents to a plant visit organized by ZEOON's Mizushima Plant where they were shown a cut-away model of a septic tank and we were able to promote the importance of water in the environment.
- We joined forces with ZEOON's Mizushima Plant to participate in a local clean-up campaign.
- Three employees participated in the Kojima Lake Catchment Clean-up Project held each September.
- We exhibited our Eco-Blower septic tank at Green Day 2008 as our local company. The Eco-Blower septic tank features low power consumption and CO2 emissions as well as a function to remove nitrogen. Green Day 2008 was the third such event to be held and its main theme was "considering the forests, waters and livelihood of the Takahashi River catchment area". The event was run by an organizing committee and jointly sponsored by the Ministry of Land, Infrastructure, Transport and Tourism, Okayama Prefecture, the Prefectural Residents Office, and various towns.

Company Profile
- Name: ZEOON Environmental Materials Co., Ltd.
- Established: September 1, 2004
- Capital: 100 million yen
- No. of Employees: 27
- Head office: 2767-22 Aza Nihama, Shionoau, Kojima, Kurashiki City, Okayama Prefecture 711-0924 (Inside ZEOON's No. 2 Mizushima Plant)
- Tele: 086-470-3771 Fax: 086-470-3722
- Offices: Fukushima, Yonezawa, Osaka, Wakayama, Kura Sli, Okayama, Takashima, Yamaguchi, Fukuoka, Kagoshima.
- Main business: Purification septic tanks

It is said that producing one ton of grain requires 2,000 tons of water. Our aim is to build a society where water is recycled and that enjoys a rich aquatic environment through the use of septic tanks.

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Environmental Protection
Tokyo Zairyo received ISO14001 certification on December 1 2006 and during 2007 combined its environmental management system with its quality management system (ISO9001 certification was received on October 1 2004). As a result of having established the pioneering and marketing of environmentally conscious products as an important environmental objective in its integrated management system and of having rolled out a total of 18 sales themes across its commercial departments, the company increased the proportion of environmentally conscious products in the 2007 financial year to 7.8%, up from 6.3% in the previous year.

Encouraging Compliance with Regulations
As a trading company that deals in chemicals, Tokyo Zairyo has a responsibility to comply with internal and external rules relating to chemical substances, and our environmental and technical section in particular is working to strengthen our compliance systems. Activities in 2007 included the following.
(1) A consultation procedure for regulatory matters was established to ensure exception-free compliance with regulations. Any employee may submit an enquiry and obtain advice from the environmental and technical section.
(2) To establish a self-managed security export control program, we put in place procedures for checking export trade control rules in accordance with guidance from the Ministry of Economy, Trade and Industry. This procedure links in with the regulatory enquiry scheme and automatically processes the request for an export approval form that records the result of double-checking by the person responsible for the transaction and the environmental and technical section.

5S is the basis of everything we do!
Working together with the septic tank production department with the motto that "without 5S, we cannot be sure of safety", our aim is to be the best in Japan at everything from septic tank assembly through to sales and installation.

Muneki Sawa President

Company Profile
- Name: Tokyo Zairyo Co., Ltd.
- Established: December 1947
- Capital: 227.6 million yen
- No. of Employees: 142
- Head Office: 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 (Shin Marunouchi Center Building)
- Tele: 03-5219-2171 Fax: 03-5219-2281
- Branches and offices: Nagoya Branch, Osaka Branch, Okayama Office
- Representative Office: Vietnam Representative Office
- Subsidiaries: Tokyo Zairyo (U.S.A.) Inc.
- Main business: Chemicals trading

Tokyo Zairyo Co., Ltd.

Tokyo Zairyo Co., Ltd. with a corporate philosophy of "contribute to society as a specialist trading business founded on chemicals that supplies unique functions and services".

Gaining the trust of customers
The Environmental and Technical Section has the important responsibility of supporting the commercial staff and providing consultation on regulations and customers' green procurement requirements. Our hope is that customers will be satisfied with our products and be able to use them with confidence.

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Hideki Seki President and CEO

Other
- Sales staff who use vehicles for their work attended accident response training and received a certificate of attendance. You never know what sort of accidents you will encounter. Even if you are a bystander, it is good to know that you can provide assistance.
- Mutual 5S checks of sales vehicles are carried out three times a year.
- Working together with the septic tank production department with the motto that "without 5S, we cannot be sure of safety", our aim is to be the best in Japan at everything from septic tank assembly through to sales and installation.

Mutual 5S checks Neighborhood clean-up campaign

Minoru Ishiguro Manager Environmental and Technical Section

(3) Ongoing employee training is conducted. Training in 2007 covered MSDSs, export trade control regulations, and REACH (new EU rules on chemicals).

Message
Management
Performance
Site Reports
Environmental Activities

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Gaining the trust of customers

The Environmental and Technical Section has the important responsibility of supporting the company staff and providing consultation on regulations and customers' green procurement requirements. My hope is that customers will be satisfied with our products and be able to use them with confidence.

Minoru Ishiguro
Manager, Environmental and Technical Section
The NPS concept is to make improvements by these principles in a way that also leads to personal growth. Thanks to the adoption of these measures, the company received a commendation award from national or local government to undertake environmental monitoring of building work, including noise and vibration testing 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 concrete shells 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.

CO2 reduction activities
The logistics division is investigating changing all of the litter cars used on site from diesel to battery power. The company is also investigating reducing the frequency of freight movements by utilizing its factory warehouse operations and by shortening the distance of track freight movements to adjacent warehouses as a way of reducing CO2 emissions.

Participation in the Fourth Shunan City Relay Race
We participated in the general high school students section of a race run on November 23 starting and finishing at the Shunan City athletics stadium. Although coming in 22nd out of 24 teams was not a great result, the sash was passed successfully from runner to runner and everyone enjoyed themselves very much at the after match function.

Contributioning even more to society
We carry out activities to earn our customers trust through our technical strengths with the aim of improving customer satisfaction in terms of quality, delivery and post. Akio Oda

Executive Committee

Akinori Egashira
Human Resources and Administration Group Business Planning Department
Affiliate Activities

ZEON Medical Co., Ltd.

ZEON Medical Co., Ltd. was established to take over the medical business of ZEON in 1989 and in the following year completed a production plant at Takaoaka City in Toyama Prefecture. Since then, the company has supported medical facilities in Japan as a domestic manufacturer, primarily of products for the circulatory and digestive systems. The company combines development, manufacturing and sales to ensure it can deliver safe and high-quality products that can be used with confidence by the doctors, technicians and nurses who provide medical care to preserve the health of their patients.

Environmental Protection

Reducing the burden on the environment

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

NPS activities

The company belongs to the NPS (New Product System) association derived from Toyota production methods and became a full member in November of last year. Instruction meetings are held in the plant each month to 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 (standard 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 cycle relentlessly to all processes as part of day-to-day work through rigorous adherence to these principles in a way that also leads to personal growth. Thanks to the adoption of these measures, the company received a commendation award from the company.

Corporate Governance

As part of an program amongst all companies in the ZEON group to implement internal controls, ZEON Medical has formalized its rules covering basic business activities and similar.

Company Profile

- **Name**: ZEON Medical Co., Ltd.
- **Established**: May 1, 1989
- **Capital**: 450 Million yen (as of end March 2008)
- **Number of Employees**: 110
- **Head office**: 2-1 Shiba Koen, Minato-ku, Tokyo 105-0011
- **Floor, Shiba Park Building**: 8th Floor, Shiba Park Building B
- **Telephone**: TEL: 03-3578-7727
- **Facsimile**: FAX: 03-3578-7751
- **Locations**: Takaoaka Plant
- **Main business**: Manufacturing of medical products

Living Together with the Local Community

Activities to support the local environment

Together with the ZEON Tokyo Plant, employees volunteered to be part of the clean-up campaign for the Higashi-gawa river that runs near the plant. Another activity that took advantage of the company’s analytic capabilities to support the local environment was to subsidize the cost of testing household drinking water taken from wells in eastern Yamaguchi Prefecture. This program covers more than 1,500 tests annually and we believe it has earned the trust of the local community.

Participation in the Fourth Shunan City Relay Race

We participated in the general high school students section of a race run on November 23 starting and finishing at the Shunan City athletics stadium. Although coming in 22nd out of 34 teams was not a great result, the sash was passed successfully from runner to runner and everyone enjoyed themselves very much at the after match function.

Environmental Activities

Wide range of environmental support activities for customers

ZEON Yamaguchi’s analytic business supports the environmental activities of ZEON’s Tokyo Plant by analyzing the waste water and waste gas from the boiler and other parts of the plant, 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 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.

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The logistics division is investigating changing all of the lorry cars used on site from diesel to battery power. The company is also investigating reducing the frequency of freight movements by utilizing its factory warehouse operations and by shortening the distance of track freight movements to adjacent warehouses as a way of reducing CO2 emissions.

Contributing even more to society

We carry out activities to earn our customers trust through our technical strengths with the aim of improving customer satisfaction in terms of quality, delivery and cost. 

- **Kei Ito**: President
- **Takaoaka Plant and R&D Center**

- **Kiyoshi Hashimoto**: President
- **ZEON Yamaguchi Co., Ltd.**
- **Established**: October 1, 1992
- **Capital**: 50 Million yen
- **Number of Employees**: 50
- **Head office**: 2-1 Natchi, Shunan City, Yamaguchi Prefecture
- **Floor, Shiba Park Building**: 7th Floor, Shiba Park Building B (Inside the ZEON Tokyo Plant site)
- **Telephone**: TEL: 083-822-3800
- **Facsimile**: FAX: 083-822-3801
- **Locations**: Hagi City, Yamaguchi City
- **Main business**: Construction, Analysis, Logistics

Working together and supporting each other!

ZEN Medical contributes to society by supplying medical devices. Nothing makes me more happy than to think that, by helping other staff who work in the manufacturing and commercial parts of the business, I too am helping contribute to society.

- **Akeni Egashira**: Human Resource and Administration Group Business Planning Department

- **Akio Oda**: Administration Manager

- **Message Management Performance Site Reports**
Environmental Data

### Environmental Topics

1. The company designs, manufactures, and markets aluminum melting furnace and molten metal supply equipment that uses an environmentally conscious energy-saving burner system.
2. Approximately 90% waste heat recovery is achieved using a low NOX regeneration burner.
3. The combustion air absorbs heat from the waste gas and is preheated in a thermal accumulator prior to being supplied to the burner.
4. Energy is saved by supplying the aluminum to the user already melted in a ladle.
5. The siphon-based molten aluminum supply system reduces CO2 emissions and delivers reliable quality and safe operation.

### Company Profile

- **Name**: ZEON North Co., Ltd.
- **Established**: April 1972.
- **Capital**: 100 million yen
- **No. of Employees**: 160
- **Head office**: 151, Eiji, Takao, Toyama Prefecture 933-0602
- **TEL**: 0766-25-1111, FAX: 0766-25-1114

Plant and equipment, construction equipment, design of industrial and environmental machinery, industrial materials, materials (synthetic resins, etc.), sales of civil engineering materials and petroleum, environmental measurement certification, work environment measurement, and various types of measurement, analysis and survey work.

### Environmental Management Performance Site Reports

#### ZEON North Co., Ltd.

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<tr>
<th>Substances</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
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### Living Together with the Local Community

- We participate in a local beautification program along with ZEON’s Takaoa Plant.
- We participate every year in a fire-fighting drill organized by the Takaoa fire department.

### Emergency Response Exercises

- Possible emergencies or accidents that have the potential to harm the environment are identified and an annual emergency response exercise is held.

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**Message Management Performance Site Reports**

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**Site Reports**

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**CSR Report**

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**Performance**

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**Management**

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**CSR Report**
**Environmental Data**

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<td>Consumption (Tons)</td>
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<td><strong>PMB</strong> applicable substances</td>
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</table>

**Affiliate Activities**

ZEON North was established as a subsidiary of ZEON in April 1972. In July 2003, it merged with Daisan Kosan, an affiliated company, and the ZEON Takasaka 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 Hokuriku (northern) location.

**Environmental Topics**

(1) The company designs, manufactures, and markets aluminum melting furnace and molten metal supply equipment that uses an environmentally conscious energy-saving burner system.

(2) Acting as a certified environmental management agent under the weights and measures law, the company performs survey and analysis work on local environmental problems (effect of toxic substances and other contaminants).

**Molten aluminum supply Single-melt operation**

(Saves energy and reduces CO₂ emissions)

**Living Together with the Local Community**

- We participate in a local beautification program along with ZEON’s Takakura Plant.
- We participate every year in a fire-fighting drill organized by the Takakura fire department.

**Emergency Response Exercises**

- Possible emergencies or accidents that have the potential to harm the environment are identified and an annual emergency response exercise is held.

**Message**

http://www.zeonnorth.co.jp/
As ZEON’s business has become increasingly globalized, we have established rubber and resin manufacturing, sales, and research bases in our main overseas markets. These overseas affiliates undertake CSR activities in the same way as the plants in Japan.

Zeon Chemicals L.P. (USA)

**Company Profile**
- **Name**: ZEON Chemicals L.P.
- **Established**: October 12, 1989
- **Capital**: US$ 36,000,000
- **Investment Ratio**: 100% ZEON Corporation
- **Head office**: 4150 Bella Lane, Louisville, Kentucky 40211, U.S.A.
  
  TEL:+1-502-775-7700  FAX:+1-502-775-7714
- **Main business**: Synthetic rubber

**Environmental Activities**
Following a thorough investigation to determine the best way to meet new regulations restricting atmospheric pollution, the Kentucky Plant has completed installation of butadiene combustion and oxidation equipment and acrylonitrile recovery equipment. Trial operation of the new systems has confirmed an improvement in atmospheric pollution. Optimization of latex (an emulsion used in the production of synthetic rubber) deodorizing equipment and investment in further combustion and oxidation equipment is planned for 2008. Our target for the future is to reduce emissions by 90%.

**Living Together with the Local Community**
Although a large number of single-parent families live in the vicinity of the Kentucky Plant, the area has few recreational facilities. To help improve this situation, ZEON Chemicals along with other neighboring chemical companies jointly promised to contribute funds to a Salvation Army community center. For its part, ZEON Chemicals will contribute $50,000 over five years.

Zeon Chemicals Europe Ltd. (United Kingdom)

**Company Profile**
- **Name**: Zeon Chemicals Europe Ltd.
- **Established**: February 6, 1989
- **Capital**: STG 23,000,000
- **Investment Ratio**: 100% ZEON Corporation
- **Head office**: Slyly Vale, Gatwick, U.K.
  
  TEL:+44-1444-726400  FAX:+44-1444-747988
- **Main business**: Synthetic rubber

**Environmental and Safety Activities**
Reducing waste material has been identified as an issue. As most waste has a water content exceeding 75%, a microwave dryer was installed experimentally and succeeded in reducing the waste volume by more than 75%.

**Environment and Safety Activities, and Related Topics**
- **Safety topics**
  - The previous paper-based system for authorizing engineering work at the plant was replaced with an electronic system. This allows across-the-board risk assessments to be made and makes it possible to perform a number of different intricate jobs in a safe manner.
  - New disaster prevention drills were introduced. The progress of the drill is recorded on camera and analyzed afterwards by the participants.

**Resource and energy saving**
We are continuing to reduce CO2 emissions and our target for energy consumption up to 2009 is a 25% reduction. To achieve this goal, we are planning productivity improvements along with recycling of steam drains and other heat recovery measures.

Zeon Chemicals Thailand Co., Ltd. (Thailand)

**Company Profile**
- **Name**: Zeon Chemicals Thailand Co., Ltd.
- **Established**: May 9, 1998
- **Capital**: THB 350,000,000
- **Investment Ratio**: 73.9% ZEON Corporation
- **Head office**: 2 Tambol Muaypong, Soi U-14
  Pukam-Songhom Road,
  Amphur Muang, Rayong 21550, Thailand
  TEL:+66-3-868-5973  FAX:+66-3-868-5972
- **Main business**: Petroleum resin

**Environment and Safety Activities, and Related Topics**
- **Environment and safety activities**
  - New occupational health and safety and environmental management systems were established in November 2007 and work is underway to achieve simultaneous accreditation under both OHSAS18001 and ISO14001 and work is underway to achieve simultaneous accreditation under both OHSAS18001 and ISO14001. Examples of the extra emphasis on day-to-day activities in these areas include educational initiatives such as regular safety training, and the publishing of a weekly health and safety report and a safety and environmental newsletter for all employees.

**Compliance**
Emergency management and compliance committees were established in January 2008 to consolidate and extend the associated management systems and strengthen the organization.

Zeon Advanced Polymix Co., Ltd. (Thailand)

**Company Profile**
- **Name**: Zeon Advanced Polymix Co., Ltd.
- **Established**: April 26, 1995
- **Capital**: THB 150,000,000
- **Investment Ratio**: 40% ZEON Corporation
- **Head office**: 115 Syl Nukum 13, Mueang Tha Tam, Mueang Samut Prakan, Rayong 21000, Thailand
  TEL:+66-3-261-0175  FAX:+66-3-261-0172
- **Main business**: Carbon master batch rubber

**Living Together with the Local Community**
Opening ceremony for new plant
A new plant was constructed in 2007 to keep pace with the strong growth in the automobile industry in Thailand.
An opening ceremony was held for the new plant with invited guests including the local police government officials, Thailand investors association, neighboring companies, and local residents.

**Activities with the Local Community**
We donated stationery and other materials to a neighboring elementary school to help us become a part of the local community. We also donated 30,000 Baht to temples and schools.

**We want to bring the world together**
We produce Quintone petroleum resin for use in adhesives and are the ZEON group’s only petrochemical production plant in Southeast Asia.

Makoto Takamura

Takahiro Okada

As part of the global rubber industry, we help supply master batch to the Asian region.
As ZEON’s business has become increasingly globalized, we have established rubber and resin manufacturing, sales, and research bases in our main overseas markets. These overseas affiliates undertake CSR activities in the same way as the plants in Japan.

**Zeon Chemicals L.P. (USA)**

**Environmental Activities**

Following a thorough investigation to determine the best way to meet new regulations restricting atmospheric pollution, the Kentucky Plant has completed installation of butadiene combustion and oxidation equipment and acrylonitrile recovery equipment. Trial operation of the new systems has confirmed an improvement in atmospheric pollution. The previous paper-based system for deodorizing equipment. Trial operation of the new systems has completed installation of butadiene combustion and oxidation equipment and acrylonitrile recovery equipment. Following a thorough investigation to determine the best way to meet new regulations restricting atmospheric pollution, the Kentucky Plant has completed installation of butadiene combustion and oxidation equipment and acrylonitrile recovery equipment. Trial operation of the new systems has confirmed an improvement in atmospheric pollution.

**Environmental and Safety Activities**

Reducing waste material has been identified as an issue. As most waste has a water content exceeding 75%, a microwave dryer was installed experimentally and succeeded in reducing the waste volume by more than 70%. Safety topics The previous paper-based system for authorizing engineering work at the plant was replaced with an electronic system. This allows across-the-board risk assessments to be made and makes it possible to perform a number of different intricate jobs in a safe manner. New disaster prevention drills were introduced. The progress of the drill is recorded on camera and analyzed afterwards by the participants. Resource and energy saving We are continuing to reduce CO2 emissions and our target for energy consumption up to 2009 is a 25% reduction. To achieve this goal, we are planning productivity improvements along with recycling of steam drains and other heat recovery measures.

**Living Together with the Local Community**

Although a large number of single-parent families live in the vicinity of the Kentucky Plant, the area has few recreational facilities. To help improve this situation, ZEON Chemicals along with other neighboring chemical companies jointly promised to contribute funds to a Salvation Army community center. For its part, ZEON Chemicals will contribute $50,000 over five years.

**Zeon Chemicals Europe Ltd. (United Kingdom)**

**Company Profile**
- **Name**: Zeon Chemicals Europe Ltd.
- **Established**: February 6, 1989
- **Capital**: £170,000,000
- **Investment Ratio**: 100% ZEON Corporation
- **Head office**: Sully Vale of Glamorgan.
- **Main business**: Synthetic rubber

** Environmental topics**

- **Safety topics**: The previous paper-based system for authorizing engineering work at the plant was replaced with an electronic system. This allows across-the-board risk assessments to be made and makes it possible to perform a number of different intricate jobs in a safe manner. New disaster prevention drills were introduced. The progress of the drill is recorded on camera and analyzed afterwards by the participants.

**Resource and energy saving**

- **We are continuing to reduce CO2 emissions** and our target for energy consumption up to 2009 is a 25% reduction. To achieve this goal, we are planning productivity improvements along with recycling of steam drains and other heat recovery measures.

**Living Together with the Local Community**

- **Although a large number of single-parent families live in the vicinity of the Kentucky Plant, the area has few recreational facilities. To help improve this situation, ZEON Chemicals along with other neighboring chemical companies jointly promised to contribute funds to a Salvation Army community center. For its part, ZEON Chemicals will contribute $50,000 over five years.**

**Zeon Chemicals Thailand Co., Ltd. (Thailand)**

**Company Profile**
- **Name**: Zeon Chemicals Thailand Co., Ltd.
- **Established**: May 9, 1998
- **Capital**: THB 350,000,000
- **Investment Ratio**: 73.9% ZEON Corporation
- **Head office**: 2 Tambol Muang, Si Iu-14, Pakam-Songhensel Road, Amphur Muang, Rayong 21550, Thailand.
- **Main business**: Petroleum resin

**Environmental and Safety Activities, and Related Topics**

**Environmental and safety activities**

- **New occupational health and safety and environmental management systems were established in November 2007 and work is underway to achieve simultaneous accreditation under both OHSAS18001 and ISO14001 by the third quarter of 2008.**

**Examples of the extra emphasis on day-to-day activities in these areas include educational initiatives such as regular safety training, and the publishing of a weekly health and safety report and a safety and environment newsletter for all employees.**

**Compliance**

- **Emergency management and compliance committees were established in January 2008 to consolidate and extend the associated management systems and strengthen the organization.**

**Living Together with the Local Community**

- **We donated stationery and other materials to a neighboring elementary school to help us become a part of the local community. We also donated 40,000 Baht to temples and schools.**

**Zeon Advanced Polymix Co., Ltd. (Thailand)**

**Company Profile**
- **Name**: Zeon Advanced Polymix Co., Ltd.
- **Established**: April 26, 1995
- **Capital**: THB 110,000,000
- **Investment Ratio**: 49% ZEON Corporation
- **Head office**: 1112 Sut Nakhon 13, Mueang 2, Makkhamkho, Nikompattana Sub-District, Rayong 21150, Thailand.
- **Main business**: Carbon master batch rubber
Although we found that the increased use of employee photographs and messages from employees conveyed a more friendly atmosphere, we also noted that from this year, data collection from the plants has been upgraded to an automatic system that does not require human intervention.

2) The accuracy of non-quantitative report content

At the Mizushima Plant, we evaluated the suitability of the methods used to calculate the figures reported at head office, the accuracy of the figures and the accuracy of the information presented. The investigation at Mizushima Plant consisted of reviewing the methods in charge of operations and the staff who prepared the report on the content of the report and asking them to provide us with documentary evidence and explanations. At these plants, we evaluated the suitability of the methods used to calculate the figures reported at head office, the accuracy of the figures and the accuracy of the information presented. The investigation at Mizushima Plant consisted of reviewing the methods in charge of operations and the staff who prepared the report on the content of the report and asking them to provide us with documentary evidence and explanations, and reviewing the consistency of the information against the evidence. A sampling technique was employed to validate the quantitative and qualitative data.

Statement

1) Suitability of (quantitative) performance indicator calculation and collation methods and accuracy of figures produced

- Reasonable calculation and collation methods were used to produce the quantitative information at the head office and Mizushima Plant. We also noted that, from this year, data collection from the plants has been upgraded to an automatic system that does not require manual work.

- Within the scope of our assessment, the performance information was calculated and collated accurately.

2) Accuracy of reported information

- We confirmed the accuracy of the information contained in the report. Although we pointed out some minor problems relating to suitability of expression and ease of understanding in the draft document, these have been corrected in the final report and we do not find any serious issues in the current document that need to be corrected.

3) The Responsible Care activities performed

- We found that, lead by the President, the management has worked closely with the plants to create a safe and stable workplace, and have shown enthusiasm for introducing an equipment information management system, making progress on foolproofing, and reviewing past accidents to prevent reoccurrence.

- We found that the company has produced and is implementing a new three-year plan to encourage further energy conservation and started to progress operational standardization and system development to create a safe and stable workplace.

4) Features of the report

- Although we found that the increased use of employee photographs and messages from employees conveyed a more friendly impression, we hope the CSR content of the report can be made more comprehensive in future.

CSR Activity Time Line (ZEON Corporation only)

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity Details</th>
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<tr>
<td>1994</td>
<td>ISO9002 certification was registered for the Takaoka Plant (changed to the ISO9001 2000 version in 2002)</td>
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<tr>
<td>1995</td>
<td>ISO9002 certification was registered for the Tokuyama Plant (changed to the ISO9001 2000 version in 2002)</td>
</tr>
<tr>
<td>1995</td>
<td>Joined the Japan Responsible Care Council</td>
</tr>
<tr>
<td>1995</td>
<td>ZEON declared that it would perform Responsible Care activities</td>
</tr>
<tr>
<td>1995</td>
<td>The “ZEON Responsible Care Basic Policy” was established</td>
</tr>
<tr>
<td>1995</td>
<td>ISO9002 certification was registered for the Kawasaki Plant (changed to the ISO9001 2000 version in 2003)</td>
</tr>
<tr>
<td>1995</td>
<td>ISO9002 certification was registered for the Tokuyama Plant (changed to the ISO9001 2000 version in 2003)</td>
</tr>
<tr>
<td>1996</td>
<td>The company-wide safety management system was reviewed and strengthened</td>
</tr>
<tr>
<td>1996</td>
<td>The “ZEON Safety Philosophy” was established</td>
</tr>
<tr>
<td>1996</td>
<td>The “Plant Technology Audit System” was established and activities started</td>
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<tr>
<td>1997</td>
<td>The “Company-wide Environment Improvement Project” was established</td>
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<tr>
<td>1997</td>
<td>The first “ZEON Safety Month” and “An-ZEON Safety Conference” were held (subsequently held every April)</td>
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<td>1998</td>
<td>A note of conduct (“ZEON’s 7 Articles”) was established</td>
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ISO140401 Certification Status for ZEON Corporation

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<tr>
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<td>2006-5 (Update)</td>
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<td>Tokuyama Plant</td>
<td>JQA-EM021</td>
<td>1999-6</td>
<td>2006-5 (Update)</td>
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<td>Kawasaki Plant</td>
<td>JQA-EM024</td>
<td>2000-7 (Reconfirmation)</td>
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ISO140101 Certification Status for Affiliates

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<td>2007-11 (Reconfirmation)</td>
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<td>ZEON Polymix Co., Ltd.*</td>
<td>JQA-EM285</td>
<td>2005-7</td>
<td>2010-7 (Reconfirmation)</td>
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<td>Optes Inc.</td>
<td>JQA-EM228</td>
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<td>2010-7 (Reconfirmation)</td>
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<td>JQA-EM057</td>
<td>2006-6</td>
<td>2008-6 (Reconfirmation)</td>
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<td>RITEC Corporation</td>
<td>JQA-EM108</td>
<td>2007-7</td>
<td>2010-7 (Reconfirmation)</td>
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<td>Tokyo Zawry Co., Ltd.</td>
<td>JQA-EM059</td>
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<td>ZEON Rubber Co., Ltd.</td>
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<td>JQA-EM045</td>
<td>2007-6</td>
<td>2010-7 (Reconfirmation)</td>
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Third-party Verification

CSR Report 2008
Third-party Verification : Statement

September 3, 2008

Aiko Yamamoto
Chairman, Verification Advisory Committee
Japan Responsible Care Council
Saburo Nakata
Chief Director, Responsible Care Verification Center

■ Purpose of Verification

The purpose of this Responsible Care report verification is for the Responsible Care Verification Center to publish an assessment by specialists from the chemicals industry of ZEON Corporation's 2008 CSR Report (abbreviated below as “the report”) in terms of the following criteria.
1. The suitability of the methods used to calculate and collate (quantitative) performance indicators and the accuracy of the figures produced
2. The accuracy of non-quantitative report content
3. The Responsible Care activities performed
4. Features of the report

■ Verification Procedure

1. At head office, we evaluated the suitability of the methods used to collate the reported quantitative information from each site (offices and plants) and the accuracy of non-quantitative information. The investigation consisted of questioning the staff in charge of operations and the staff who prepared the report on the content of the report and asking them to provide us with documentary evidence and explanations.
   - At the Mizushima Plant, we evaluated the suitability of the methods used to calculate the figures reported at head office, the accuracy of the figures and the accuracy of the information presented. The investigation at Mizushima Plant consisted of questioning the staff in charge of operations and the staff who prepared the report, asking them to provide us with documentary evidence and explanations, and reviewing the consistency of the information against the evidence.
   - A sampling technique was used to evaluate the quantitative and other information.

Statement

1) Suitability of (quantitative) performance indicator calculation and collation methods and accuracy of figures produced
   - Reasonable calculation and collation methods were used to produce the quantitative information at the head office and Mizushima Plant.
   - We also noted that, from this year, data collection from the plants has been upgraded to an automatic system that does not require manual work.
   - Within the scope of our assessment, the performance information was calculated and collated accurately.
2) Accuracy of reported information
   - We confirmed the accuracy of the information contained in the report. Although we pointed out some minor problems relating to suitability of expression and ease of understanding in the draft document, these have been corrected in the final report and we cannot find any serious issues in the current document that need to be corrected.
3) The Responsible Care activities performed
   - We found that, lead by the President, the management have worked closely with the plants to create a safe and stable workplace, and have shown enthusiasm for introducing an equipment information management system, making progress on foolproofing, and reviewing past accidents to prevent reoccurrence.
   - We found that the company has produced and is implementing a new three-year plan to encourage further energy conservation that has stated a specific target of reducing unit energy consumption to 75% of the 1990 level in 2010. We anticipate the company achieving its targets for each year.
   - We found that the Mizushima Plant is working with local government and ten other companies associated with the industrial complex on resource recycling and reducing the volume of waste being sent to landfill, and is achieving significant results.
   - The Mizushima Plant completed its new Integrated Production Center in November of last year where it was able to consolidate approximately half of its operational departments. In addition to completing this consolidation, we found that the plant is committed to progressing operational standardization and system development to create a safe and stable workplace.
4) Features of the report
   - Although we found that the increased use of employee photographs and messages from employees conveyed a more friendly impression, we hope the CSR content of the report can be made more comprehensive in future.

CSR Activity Time Line (ZEON Corporation only)

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity Details</th>
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</thead>
<tbody>
<tr>
<td>1994</td>
<td>ISO9002 certification was registered for the Taokaoka Plant (changed to the ISO9001:2000 version in 2002)</td>
</tr>
<tr>
<td>1995</td>
<td>ISO9002 certification was registered for the Tokuyama Plant (changed to the ISO9001:2000 version in 2002)</td>
</tr>
<tr>
<td>1995</td>
<td>Joined the Japan Responsible Care Council</td>
</tr>
<tr>
<td>1995</td>
<td>ZEON declared that it would perform Responsible Care activities</td>
</tr>
<tr>
<td>1995</td>
<td>The “ZEON Responsible Care Basic Policy” was established</td>
</tr>
<tr>
<td>1995</td>
<td>ISO9002 certification was registered for the Kawasaki Plant (changed to the ISO9001:2000 version in 2003)</td>
</tr>
<tr>
<td>1995</td>
<td>ISO9002 certification was registered for the Mizushima Plant (changed to the ISO9001:2000 version in 2003)</td>
</tr>
<tr>
<td>1996</td>
<td>The company-wide safety management system was reviewed and strengthened</td>
</tr>
<tr>
<td>1996</td>
<td>The “ZEON Safety Philosophy” was established</td>
</tr>
<tr>
<td>1996</td>
<td>The “Plant Technology Audit System” was established and activities started</td>
</tr>
<tr>
<td>1997</td>
<td>The “Company-wide Environment Improvement Project” was established</td>
</tr>
<tr>
<td>1997</td>
<td>The first “ZEON Safety Month” and “Ali-ZEON Safety Conference” were held (subsequently held every April)</td>
</tr>
<tr>
<td>1998</td>
<td>ISO14001 certification was registered for the Taokaoka Plant</td>
</tr>
<tr>
<td>1998</td>
<td>The Kawasaki Plant acquired certification after the high-pressure gas safety inspection</td>
</tr>
<tr>
<td>1999</td>
<td>ISO14001 certification was registered for the Mizushima Plant</td>
</tr>
<tr>
<td>1999</td>
<td>ISO14001 certification was registered for the Kawasaki Plant</td>
</tr>
<tr>
<td>1999</td>
<td>ISO9001 certification was registered for the polymer departments</td>
</tr>
<tr>
<td>2000</td>
<td>The Taokaoka Plant acquired certification after the high-pressure gas safety inspection</td>
</tr>
<tr>
<td>2000</td>
<td>Started to publish the “Responsible Care Activity Report” from the (1999 edition)</td>
</tr>
<tr>
<td>2001</td>
<td>The “ZEON Environment Philosophy” was established</td>
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<tr>
<td>2001</td>
<td>The “Handling Restricted Materials Rules” were established</td>
</tr>
<tr>
<td>2002</td>
<td>The “Affiliate Joint Environment and Safety Meeting” was established</td>
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<tr>
<td>2003</td>
<td>The “Project for Reducing the Emissions of Substances Subject to the PPRR Law” was established</td>
</tr>
<tr>
<td>2003</td>
<td>The “Project for Promoting the Development of Energy Conserving Technology” was established</td>
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<tr>
<td>2004</td>
<td>The “Energy Management Rules” were established</td>
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<tr>
<td>2004</td>
<td>Revision to the “Risk Management and Compliance Rules”</td>
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<tr>
<td>2005</td>
<td>The “Internal Report System” was established</td>
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<tr>
<td>2005</td>
<td>The “ZEON’s 7 Articles” were established</td>
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<tr>
<td>2006</td>
<td>The “Responsible Care Activity Report” was published</td>
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<tr>
<td>2006</td>
<td>The “Basic Policy Concerning the Establishment of an Internal Controls System” was established</td>
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<tr>
<td>2007</td>
<td>The basic policy for financial reporting was established</td>
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<tr>
<td>2007</td>
<td>A part time work system to promote child care was introduced</td>
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ISO14001 Certification Status for ZEON Corporation

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<thead>
<tr>
<th>Site</th>
<th>Registration No</th>
<th>Registration Date</th>
<th>Date of Most Recent Update or Reconfirmation</th>
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<tbody>
<tr>
<td>Taokaoka Plant</td>
<td>JQA-EM005</td>
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<td>Tokuyama Plant</td>
<td>JQA-EM0021</td>
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<td>Kawasaki Plant</td>
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<td>Mizushima Plant</td>
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<td>2000.7 (Reconfirmation)</td>
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ISO14001 Certification Status for Affiliates

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<th>Date of Most Recent Update or Reconfirmation</th>
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The table includes certification status for various sites of ZEON Corporation and its affiliates as of a certain date, with some certifications updated or reconfirmed at different dates.
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.