



CSR Report 2016



CSR Report 2016 (Previous issue: June 2015 as Environmental and Social Report 2015) Issued June 2016 (Next issue: scheduled for June 2017) Shin-Etsu Chemical Co., Ltd. 6-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan

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Your opinions, inquiries, and requests regarding this report are welcomed at our website:

URL: http://www.shinetsu.co.jp/en/inquiry/kankyo\_enq.php

#### **Shin-Etsu Group Corporate Mission Statement**

The Group strictly complies with all laws and regulations, conducts fair business practices and contributes to people's daily lives as well as to the advance of industry and society by providing key materials and technologies.

#### **Basic CSR Policy**

#### The Shin-Etsu Group:

- Will do our best to increase the Group's corporate value through sustained growth and make multifaceted contributions to society.
- Will carry out all of our company activities by making safety always our utmost priority.
- Will constantly pursue energy-saving, resources-saving and the reduction of the 3. environmental impact, and seek to help create a sustainable future world in which we all live in harmony with the Earth.
- Will endeavor to contribute to the prevention of global warming and the conservation of biodiversity by means of our cutting-edge technologies and products.
- Will strive to respect human dignity, assure equality in employment opportunities and support the self-fulfillment of our employees.
- Will appropriately disclose information in a timely manner.
- Will carry out trustworthy corporate activities that are based on the integrity of the Group's ethical values.

Issued June 2011

#### Upholding the Ten Principles of the UN Global Compact

The Shin-Etsu Group joined the United Nations Global Compact (UNGC) in November 2010.

The Group upholds the ten principles advanced by the UNGC in the four areas of human rights, labor, environment and anti-corruption.

#### **Human Rights**

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses

#### Labour

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective
- Principle 4: the elimination of all forms of forced and compulsory labour:
- Principle 5: the effective abolition of child labour; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

#### **Environment**

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

#### **Anti-Corruption**

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.



\* CSR (Corporate Social Responsibility)

The idea that enterprise, rather than concentrating solely on profit, needs to value their relationships with a wide range of stakeholders in the conduct of their business.



or information on our Corporate Mission Statement, Basic CSR Policy and UNGC participation, please refer to http://www.shinetsu.co.jp/en/csr/

#### **Editorial Policy**

#### **About This Report**

The Shin-Etsu Group's "Environmental Report" has been issued since 2000, and, in 2004, the contents were expanded to include corporate social responsibility in general. The "Environmental and Social Report" continues to be issued every

With respect this time to the corporate social responsibility imposed on the Group, since we continue to promote more accurate dialogueue with everyone in society, this is compliant with the standard disclosure items indicated by the Global Reporting Initiative's "Sustainability Reporting Guidelines, 4th edition (GRI G4)", which is an international reporting guideline. Furthermore, this report is titled "CSR Report".

The Report also serves as a report on our Responsible Care programs<sup>1</sup>

#### **Referenced Guidelines**

GRI "Sustainability Reporting Guidelines, 4th edition" Ministry of the Environment "Environmental Report Guidelines 2012 Edition"

Ministry of the Environment "Environmental Accounting Guidelines 2005 Edition"

#### **Period Covered by the Report**

(indicated where otherwise)

Japan: April 1, 2015 to March 31, 2016 Overseas: January 1, 2015 to December 31, 2015

#### **Organizations Covered by the Report**

The report covers our 147 Group companies including Shin-Etsu Chemical Co., Ltd, herein after called the Company. The range of entities from which data were collected is in principles as stated below. Where otherwise, this is indicated in a separate

#### (1) Environmental Activity Report

The report includes data from the 124 companies of the Group.

67 manufacturing bases in Japan

122 non-manufacturing bases in Japan

47 overseas manufacturing bases

57 overseas non-manufacturing bases

#### (2) Environmental Accounting

Shin-Etsu Chemical Co., Ltd.

#### (3) Other

The Group, except for the Shin-Etsu Polymer Group<sup>2</sup>

#### 1 Responsible Care programs

A campaign encouraging enterprises that handle chemical substances to voluntarily ensure protection of the environment, safety and health in all processes, from the development of chemical substances through manufacture, distribution and utilization to final consumption, disposal or recycling, to publish the results of their activity, and to engage in dialogue and communication with society.

2 For a report on the Shin-Etsu Polymer Group, see "Shin Etsu Polymer Sustainability Report 2016" (to be published at the end of September 2016).



This is our Comm in implementing the principles of the United Nations Global Compact and





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# Contributing to the development of society by working on our Key CSR Issues and putting our Corporate Mission into practice







A form

Shunzo Mori

Director-Adviser

#### **Growing Sustainably Together with Society**

The Shin-Etsu Group's Corporate Mission is to "strictly comply with all laws and regulations, conduct fair business practices and contribute to people's daily lives as well as to the advance of industry and society by providing key materials and technologies." We are working towards furthering the development of society by making safety our utmost priority above all else and by making strenuous efforts to apply our cutting-edge technological strengths to help reduce the environmental impact.

#### **Contributions to the Future of the Earth**

The Group seeks to help create a sustainable future world by pursuing the thoroughgoing reduction of any environmental impact resulting from its manufacturing processes, and at the same time, it is striving to pursue the development and sales of products that will help reduce the environmental impact on the earth.

The products that the Group is providing to the world, such as PVC, semiconductor silicon, silicones and rare earth magnets, are indispensable materials for the sustainable development of global industry and the quality of people's daily lives.

The fields in which the Shin-Etsu Group's products play essential roles are infinite, and they include the promotion of energy-saving, the spread of renewable energy, the improvement in the reliability of infrastructure, the protection of the ecosystem and the challenges of coping with an aging society.

We will continue to meet new challenges with our manufacturing, sales and research-and-development departments united as one and strive to move ahead so that we can contribute to the future of the Earth.

# Supporting and Implementing Principles and Global Charters

The Group signed and put into practice the Responsible Care Global Charter of the International Council of Chemical Associations (ICCA) in 2006, and in 2014, we signed the revised Responsible Care Global Charter.

In 2010, the Shin-Etsu Group became a participant in the United Nations Global Compact (UNGC) and has been voluntarily supporting and practicing in our business operations and strategies the UNGC's Ten Principles with regard to human rights, labor standards, the environment and the prevention of corruption. These principles are all in line with the Group's Corporate Mission and Basic CSR Policy. Through these activities, the Group will endeavor to build even deeper relationships of trust with people around the world.

# Promoting Social Contribution Activities Rooted in Local Communities throughout the World

The Group companies and their employees around the world are carrying out social contribution activities that are rooted in their local communities. The activities of Shintech Inc., our U.S. Group company, are a representative example.

Shintech Inc. through its business activities is making a great contribution to the U.S. economy, and at the same time, many of its employees by means of their voluntary participation in the activities of local charities are deepening relationship of trust with the people of the local-area communities.

#### **Key CSR Issues**

With legal compliance and fair corporate activities as the cornerstone of all of its activities, the Group has defined eight Key CSR Issues.

- Health and safety for workers
- Energy-saving, resource-saving and the reduction of the environmental impact
- Product quality improvements and product safety control
- Promoting CSR procurement and the diversification of supply sources
- Respect for human rights, the development of human resources and the promotion of diversity
- Contribution to industry and social initiatives
- Respect for and protection of intellectual property
- Accurate and timely information disclosure and communication with stakeholders

The key issues that are defined here are issues that we have concentrated our efforts on for many years. Within the Group, we have repeatedly conducted studies concerning the most effective ways to fulfill our corporate social responsibilities and we have officially decided to once again clearly specify these important issues as our Key CSR Issues.

The Group aims to steadily achieve its corporate social responsibilities by responding to the requests from society, and contributing to the solution of key issues through our cutting-edge technologies and products. We sincerely ask for your continued understanding and support in the future as well.

June 2016

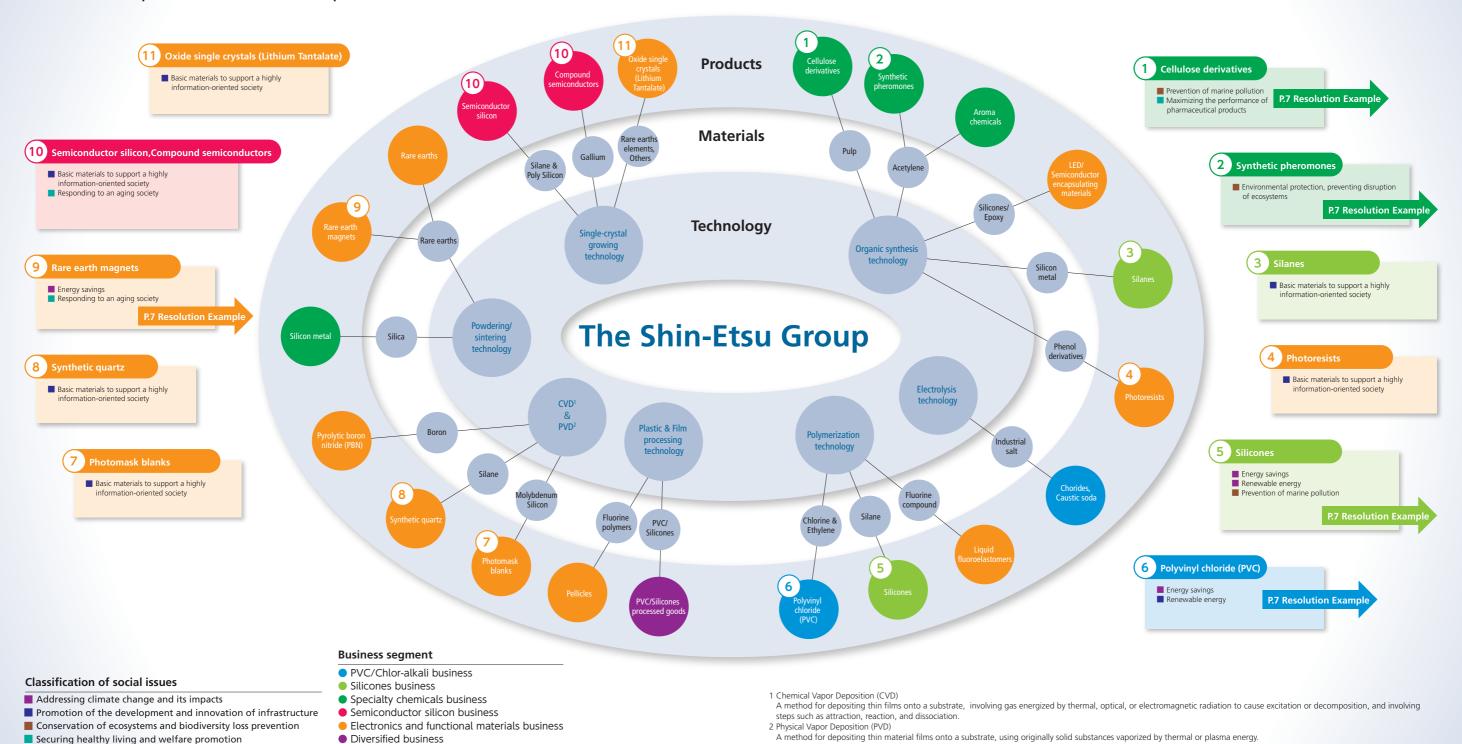
#### **Overview of the Shin-Etsu Group**

As of March 31, 2016, the Shin-Etsu Group comprises of Shin-Etsu Chemical and 147 Group companies, which share responsibility for sales, manufacturing and other operations and cooperate to develop their respective business activities.

These business activities are divided into six segments: PVC/Chlor-Alkali Business; Silicones Business; Specialty Chemicals Business; Semiconductor Silicon Business; Electronics and Functional Materials Business; and Diversified Business. In each of these fields, we have products with a strong market share around the world and in Japan, with the world's top share in polyvinyl chloride (PVC), semiconductor silicon, photomask substrates for LCDs, and the top domestic share for silicones.

Shin-Etsu products are a familiar part of our everyday lives and they play an essential role in society.

# Resolution examples of the main social challenges with the technology, raw materials and products of the Shin-Etsu Group



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#### Social issue resolution example



Next-generation power grid. A transmission network that can be optimized and that can control the power flow from both the supply side and the demand side.

Abbreviation for 'Internet of Things'. This is technology that connects everything on the Internet.



Note 2 From the World Silicone Industry Report "Balance of Silicone (2012)". Investigation results were targeted in Europe, North America and Japan, where silicone products are mainly used.

#### **Corporate Overview**

Trading name Shin-Etsu Chemical Co., Ltd. Location

6-1, Ohtemachi 2-chome, Chiyoda-ku,

Tokyo 100-0004, Japan Established September 16, 1926 119,419 million yen

Representative Chihiro Kanagawa, Chairman Yasuhiko Saitoh, President

Business activities Production and sales of polyvinyl chloride, semiconductor silicons, silicones, rare earth

> magnets, synthetic quartz, cellulose derivatives and other products

#### Number of employees (Consolidated: Total 18,407 people)

#### By Region

Japan 7,975 people United States 2,625 people Europe 1,387 people Asia/Oceania 6,420 people

By Gender

Male 13,593 people Femail 4,814 people

#### **Major Group Companies**

Capital

Shin-Etsu Handotai Co., Ltd., Shin-Etsu Polymer Co., Ltd., Shin-Etsu Astech Co., Ltd., Shin-Etsu Engineering Co., Ltd., Nagano Electronics Industrial Co., Ltd., and others

#### Overseas

Shintech Inc., S.E.H. Malaysia SDN. BHD., Shin-Etsu Handotai America Inc., Shin-Etsu PVC B.V., SE Tylose GmbH & Co. KG, Shin-Etsu Handotai Taiwan Co., Ltd., Simcoa Operations Pty. Ltd., Shin-Etsu Silicones (Thailand) Limited, Asia Silicones Monomer Ltd., and



http://www.shinetsu.co.jp/en/ir

Japan 60 companies

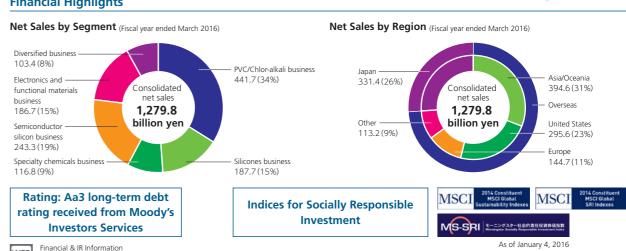
21 companies



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#### **Financial Highlights**



<sup>\*</sup>Non-consolidated companies are included in the number of regional group companies.

#### **Corporate Governance**

# Corporate governance is one of our important management tasks

The Company considers Corporate Governance to be one of the important management tasks, and it is focusing on the following points.

- Development of an efficient organizational structure and institutions
- Improving transparency in management
- Strengthening internal controls
- Accurate information disclosure

# Board of Directors, Managing Directors' Meeting and Audit & Supervisory Board

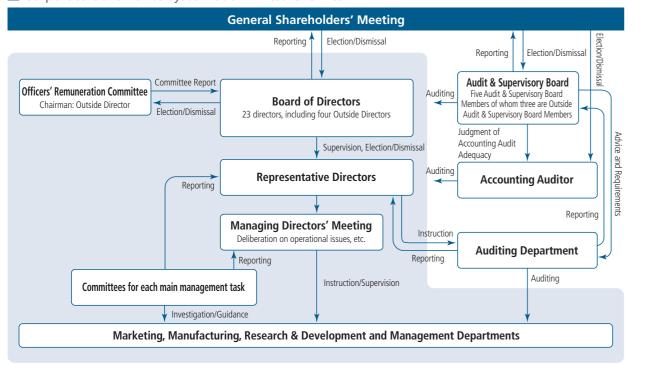
The Board of Directors consists of 23 members, of whom four are Outside Directors with a wealth of management experience and exceptional insight.

Two organizations to discuss and decide on the execution of operations: the Board of Directors and the Managing Directors' Meeting, which are each held on a monthly basis as a general rule. The Board of Directors sets out the Company principle and deliberates and makes decisions regarding key aspects of Company

operations in accordance with the Companies Act, the Company articles of incorporation, etc. Meanwhile, the Managing Directors' Meeting makes deliberations and decisions on a variety of other operational issues.

The Company has adopted an Audit & Supervisory Board Member system. The Audit & Supervisory Board is composed of five members, including three Outside Audit & Supervisory Board Members. As well as attending the Board of Directors meetings, Managing Directors' Meetings, and other important internal meetings, the Audit & Supervisory Board Members review documents, visit factories in Japan and overseas, and carry out other tasks in order to audit the execution of operations by the directors. Furthermore the Audit & Supervisory Board Members also hold monthly meetings with the Auditing Department where they receive progress reports on activities, internal auditing results, the situation of the Auditing Department business, and other matters. In addition, they also provide advice and make requests on topics including these activities and the selection of key auditing topics.

#### Corporate Governance System at Shin-Etsu Chemical



As of June 29, 2016

Corporate Governance Report (only Japanese available) http://www.shinetsu.co.jp/jp/csr/pdf/CG160708.pdf

#### **Outside Directors**

For the purpose of the fulfilled advisory and supervisory functions of management from an independent position, the Company welcomes four Outside Directors. Advice has been obtained from Outside Directors about the enhancement of growth strategy and governance. We believe that these points are extremely important in order to raise corporate value.

#### Outside Director List

Outside Director List				
Name	Status of significant other positions held			
Frank Peter Popoff	Former CEO, The Dow Chemical Company (US)			
Tsuyoshi Miyazaki	Former Representative Director and President, Former Representative Director and Chairman and current Advisor, Mitsubishi Logistics Corporation			
Toshihiko Fukui	Former Governor of the Bank of Japan Outside Director, Kikkoman Corporation President, The Canon Institute for Global Studies			
Hiroshi Komiyama	Former President, The University of Tokyo Chairman, Mitsubishi Research Institute, Inc. Outside Director, JX Holdings, Inc.			

As of June 29, 2016



From the left, Hiroshi Komiyama, Toshihiko Fukui, Frank Peter Popoff,

#### **Outside Audit & Supervisory Board Members**

For the purpose of the fulfilled advisory and supervisory functions on management through an independent position, the Company welcomes three Outside Audit & Supervisory Board Members. Outside Audit & Supervisory Board Members are auditing the Company's management as experts in their respective fields or from a broad point of view based on corporate management experience. Outside Audit & Supervisory Board Auditing is contributing to ensure the Company's compliance system.

#### Outside Audit & Supervisory Board Member List

Name	Status of significant other positions held
Taku Fukui	Lawyer Managing Partner, Kashiwagi Sogo Law Offices Professor, Keio University Law School
Yoshihito Kosaka	Certified Public Accountant, Certified Public Tax Accountant Counselor, Kisaragi Audit Corporation
Kiyoshi Nagano	Former Representative Director, Chairman and President, former JASDAQ Securities Exchange, Inc. Outside Director, SBI Holdings, Inc. Outside Director, LEC INC.

As of June 29, 2016



From the left, Yoshihito Kosaka, Kiyoshi Nagano, Taku Fukui

Shin-Etsu Chemical CSR Report 2016

#### **Directors' Remuneration**

In order to ensure transparency and validity in the decision-making process of the Directors' Remuneration, the Officers' Remuneration Committee has been in place since 2002. The committee consists of five directors, with Outside Director Frank Peter Popoff as chairman. The committee comprehensively reviews the evaluation results of the contribution to business performance and management of each director in each fiscal year, and reports this to the Board of Directors.

#### **Internal Control System and Operational Audit**

The Company has formulated a Basic Policy on Internal Controls to help put in place "structures to ensure that the execution of duties by the directors is fully compliant with relevant legislation and the articles of incorporation, and structures to ensure the propriety of business operations within the corporate group consisting of its subsidiaries as well as this corporation and other corporate business", as stipulated by the Companies Act and an Ordinance of the Ministry of Justice.

Internal controls are an important management responsibility at the Company. Accordingly, the internal control system is structured and implemented in accordance with the above policy. It is subjected to constant review to make the system more appropriate and efficient.

Internal operation audits and assessment of internal controls over financial reporting are handled by the Auditing Department. The results of these audits and assessments are reported to board members including Outside Directors and Outside Audit & Supervisory Board Members to strengthen coordination between Auditing Department and Outside Directors and Audit & Supervisory Board Members.

#### **Operation of Group Companies**

The Company aims for development of the whole Group by supporting and respecting the autonomy of the Group companies. Group companies are managed on the basis of the Shin-Etsu Chemical Group Company Operational Regulations. The 91 companies that are consolidated subsidiaries are conducting prior consultation and reporting on the following projects.

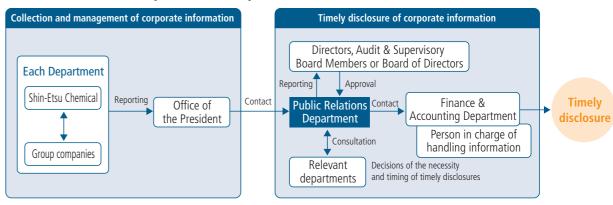
- (1) Prior Consultation Item Example
  - Capital increase or decrease, mergers, dissolutions, amendments to the Articles of Incorporation
  - New business and capital investment plan
  - Transfer or acquisition of business
  - Appointment and dismissal or transfer of officers and seconded executives
- (2) Reporting Item Example
  - Operations review
  - Financial results
  - Risk information recognized by Group companies
  - Important information such as deficiencies in internal control

Furthermore, by holding meetings which are attended by the presidents of our main Group companies twice each year, we actively promote the sharing and exchange of information among Group companies.

# Internal System for Timely Disclosure of Corporate Information

In accordance with the regulations regarding information disclosure set by the stock exchange and the Financial Instruments and Exchange Act, the Company has formulated internal regulations regarding collection, management, and timely disclosure of corporate information. These regulations include the Regulations on Timely Disclosure of Corporate Information and the Rules on Regulation of Insider Trading. These rules are communicated to all of the departments in the Company and Group companies to promote smooth and timely disclosure.

#### State of the internal system for timely disclosure





Results briefing in fiscal year ending March 2016

#### **CSR Promotion Structure**

# The Shin-Etsu Group implements various activities to fulfill its corporate social responsibility

# We make preparations to counter the risks surrounding the Company

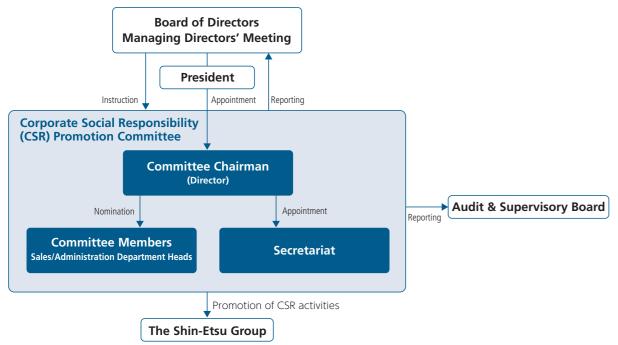
#### **CSR Promotion Initiatives**

We believe that it is the social responsibility of the Group to contribute to our stakeholders, such as shareholders, investors, customers, business partners, local communities and employees.

To achieve this, we formulated the Basic CSR Policy and internal regulations, and are carrying out CSR

activities. In order to promote CSR activities in an effective and appropriate manner at a company wide level in all aspects of corporate activity, we have set up a CSR Promotion Committee comprising managers from the relevant divisions and departments, and have appointed a director in charge of CSR.

#### CSR Organizational Chart



#### Transmission of CSR Initiatives inside and outside the company

A variety of information is being disseminated so that the CSR Initiatives in the Group can be understood.

The Company's website CSR site was updated in February 2015, and the amount of information on it has greatly increased.

In addition, a CSR feature has been serialized from the October 2015 issue of the company magazine in order to enrich transmission within the company. The following articles have been published so far: "What is CSR?", the Corporate Mission Statement of the Group and reconfirmation of the Basic CSR Policy, and "How the Group's products and technologies can solve social issues?"





#### **Risk Management Regulations**

**Risk Management** 

The Company has established the Risk management Regulations. Comprehensive risk considered in carrying out business activities in the Company and the Group are specifically defined in a long-term perspective in the regulations. In addition, risk handling methods and a risk management system has been established.

#### Risks Defined in Risk Management Regulations

	3			
(1) Risk factors related to busine	ss activities			
(1) Business risks	(8) Environment and safety risks			
(2) Research and development risks	(9) Information management risks			
(3) Production and quality management risks	(10) Intellectual property, contract, and litigation risks			
(4) Sales risks	(11) Fraud risks			
(5) Purchasing risks	(12) Country risks			
(6) Finance and accounting risks	(13) Legal risks			
(7) Personnel and labor risks	(14) Other			
(2) Risk factors not related to bu	siness activities			
(1) Risks caused by economic factors	(4) Risks caused by scientific and/or technical factors			
(2) Risks caused by social factors	(5) Risks caused by natural environmental factors and/or disasters			
(3) Risks caused by governmental factors	(6) Other			



. Grasp the situation of the accident, disaster

Situational awareness of business partners.

• Confirm the safety of employees, ensure necessary personnel

· Information collection, transmission

secure alternative suppliers

· Respond to outside inquiries

Masaki Miyajima Managing Director Risk Management Committee Chairman

#### **Risk Management Committee**

The Risk Management Committee has been established. The Committee constructs risk management structures, establishes regulations, and works to identify and prevent potential washout of risks arising in connection with the operations of the Company. The Committee also promotes broad-based activities such as the development of business continuity planning, education, and information provision. The Committee reports directly to the Board of Directors, the Audit & Supervisory Board, and the Managing Directors' Meeting on major issues in risk management.

#### Handling in the Business Continuity Plan and during an Emergency

The Group offers a number of products used in special applications in state-of-the-art industries and has a high market share in products not only in Japan but around the world. For that reason, if these products can not be supplied due to an accident or serious disaster such as a massive earthquake or fire, it will have an affect on

In the Company, each division and each factory is preparing for a disaster and accident and formulates a business continuity plan on the basis of the Companywide Business Continuity Management Regulations.

In addition, if a disaster or accident occurs, we will work using the structure shown below. Each of the countermeasures head office and organizations carry out emergency response and recovery support on the basis of pre-defined business standards.

System and major response operation in the occurrence of a disaster or accident

Disaster countermeasures head office **Director: President** 

With the countermeasures head office **Division countermeasures head office** (Head office administration departme (Appropriate division)

- · Grasp the damage, confirm the stock
- · Grasp the customers's situation
- · Respond to customer inquiries
- · Implement alternative measures.
- re-examine the recovery plan

Factory countermeasures head office (Appropriate factory)

- · Report, contact regions, head office, employees
- Grasp the damage to production equipment, employee safety
- Secondary disaster prevention
- Ensure necessary personnel
- · Recovery plan proposal, implementation

### **Specifying Shin-Etsu Group Key CSR Issues**

The Group established the CSR Promotion Committee ("the Committee") in 2005, and in order to practice the Corporate Mission Statement to "The Group strictly complies with all laws and regulations, conducts fair business practices and contributes to people's daily lives as well as to the advance of industry and society by providing key materials and technologies." we have been working on a wide variety of activities.

What the Group must address in particular was defined as "Key CSR Issues" through the following procedure in fiscal 2015.

Having targets set for each Key CSR issues, we will work and evaluate to improve the current situation in order to achieve the targets.

1 Clarifying Key CSR Issues

2 Creating a scatter plot of Key CSR Issues and organizing them

#### 1 Clarifying Key CSR Issues

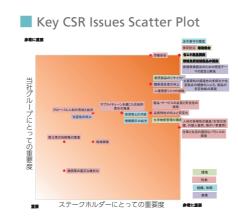
In the Committee, the following investigations were done for all of the Company's departments and major domestic Group companies.

- ① Stakeholders for each department and each company are reconfirmed and reorganized.
- ② In reference to ISO26000 core subjects, Key CSR Issues are listed in each department and each company.
- ③ Level of importance of each key issue for the Group as well as for stakeholders is scored. Each point of the importance for stakeholders and the importance for the Group in each key issue is scored.

### 2 Creating a scatter plot of Key CSR Issues and organizing them

The Committee created a scatter plot of key issues on the basis of the key issues and their scores submitted by each department and each company. The result showed that the majority of key issues were "very important" issues.

The Committee organized the listed key issues and also created a draft of Key CSR Issues with these being reflected in the scatter plot.



#### 3 Interviews with Outside Directors

Individual interviews were conducted with all Outside Directors with prepared proposal. The followings are the suggestions and opinions provided in the interviews.

- ① Compliance with Laws and Regulations are related to all the other issues.
- ② All of the Key CSR Issues listed are equally important for the Group, and it is difficult to prioritize them.
- ③ The Group should clarify what we are aiming at as a goal as the Group specify Key CSR Issues.



3 Interviews with Outside Directors

4 Re-examination in the Committee and approved by the management

#### 4 Re-examination in the Committee and approved by the management

Based on the suggestions and opinions from the Outside Directors, the Committee has re-examined key issues. The Managing Directors' Meeting, which is the decision-making body with all the directors and audit & supervisory board members also examined and has decided the items in the figure below to be Key CSR Issues of the Group.

The Group will work equally on all of these Key CSR Issues without an order.

Also, the Group has set a goal to contribute to the future of the Earth by practicing the Corporate Mission Statement while working on these issues. The Group now has a goal to "Contribute to the future of the Earth" while working on Key CSR Issues.



Strengthen existing businesses

Create new businesses

Health and safety for workers

Product quality improvement and product safety control

Respect for human rights, the development of numan resources and the promotion of diversity

Contribution to industry and social initiatives

Energy-saving, resource-saving and the reduction of the environmental impact

Promoting CSR procurement and the diversification of supply sources

Respect for and protection of intellectual property

Accurate and timely information disclosure and communication with stakeholders

**Legal compliance, Fair corporate activities** 

# **Expectations of the Shin-Etsu Group's CSR Activities**

Advices and suggestions for the Group's CSR activities are given from the Outside Directors.



Toshihiko Fukui

The nature of the business activities of the Group work behind the scenes by providing the highest quality material<sup>1</sup> to the entire economy, both in Japan and worldwide.

In order to fulfill this role, the highest quality materials must satisfy at least two of the following requirements.

1 Using our material should enable us to create products with added values much higher than those of previous products

② The process of creating the material and products as well as the products themselves need to be those with high environmental values (with low environmental impact)2.

In order to keep providing high-quality materials in internal and external economic dynamics that are rapidly changing, it will be essential to constantly create new businesses.

Even further sales efforts are required so that our customers will be satisfied and their eyes for materials will develop, and the materials will be properly priced



I believe that the Group should send out more messages with awareness of ESG\*. Activities of the Group are the ones profitable not only for the company (internally) but also for society (externally).

The Group has been developing materials **Hiroshi Komiyama** satisfactory to the customers who are aware of the external influence which resulted in

contributing to the society ourselves. It is a right thing to do itself. However, we should now work with an even more positive attitude with both directors and employees having a mind for social contribution. It is important for directors and employees to raise awareness so that employees will be proud of themselves as well. It also helps human resources development. Let us proudly send the Group's challenges and achievements outside the company. The

with the value recognized.

We must keep in mind to lead the market participants in the direction where environment will gradually have higher priority through these processes. Having each one participating in the activities with "Evolution of the market" mind will open the way to realize the goal.

1 p.34-35 Product quality improvements and product safety control 2 p.5-6 Resolution examples of the main social challenges with the technology, raw materials and products of the Shin-Etsu Group



The Group has achieved great results through constant and robust efforts. I think the same is true for CSR activities.

We have the Key CSR Issues newly specified with today's needs by which CSR should strongly be promoted. I totally agree with this approach.

Identified Key CSR Issues are one of many core management issues. Since the issues have been recognized by the company management, an itemized

action plan with deadlines and persons in charge, and execute the plan and evaluate it.

Among the key issues, I believe that human resource development<sup>2</sup> is critical. The Group's Basic CSR Policy needs to be widely disseminated to the people other than those in charge of CSR. Human resources necessary for this should be cultivated.

As the Group just reached our 90th anniversary, I sincerely hope that further advancement of CSR activities will meet the demands of society for the next 90 years.

1 p.15-16 Specifying Shin-Etsu Group Key CSR Issues 2 p.37-38 Respect for human rights, the development of human resources and the promotion of diversity



Frank Peter **Popoff** 

transmission of rare earth magnet/PVC recycling

more taxes with increased profit, but we would like to

keep working further on **Contribution to industry** 

We can of course contribute to society by paying

efforts<sup>1</sup> is a good example.

and social initiatives<sup>2</sup> as well.

1 p.30 Resource recycling 2 p.43-44 Contribution to industry and social initiatives

This refers to Environment, Society, and Governance.

The CSR Program at Shin-Etsu is an outstanding example of the best practices in the chemical or any other industry. It addresses both internal operating issues and external social policies insuring that all the concepts of responsible care<sup>1</sup> are fully covered.

I have a special interest in **energy conservation**<sup>2</sup> and its dual benefits of resource cost savings and the reduction of environmental impact. I am most pleased to note all that Shin-Etsu does to employ the latest in technology and operations to capture maximum benefits.

1 p.2 Editorial Policy Note 1



Masashi Kaneko

The Group has always disclosed our CSR initiatives externally, but improving the following points would make disclosure even more meaningful.

① Customers and business partners are strongly interested in the business continuity of the Group. We take this situation seriously and add "due to the fact that there are unremitting

management efforts for the business community" to one on Basic CSR Policy.

2 The Group has obtained a rating that has described an explanation of the socially responsible investment index 1.

3 The CSR Promotion Structure should be shown in a figure<sup>2</sup> to make it easier to understand.

4 Specifically describe what the Group emphasizes for strictly compliance with laws and regulations. Also, it will clearly stated that bribery is prohibited not only domestically but also internationally in order to prevent corruption<sup>3</sup>.

⑤ The system prepared for an emergency response is of extremely high importance. The system is easier to be understood when shown in a figure4.

6 The greenhouse gas emissions graph⁵ should be largely dealt with since it shows the results the Group has been working on for many years.

1 Shin-Etsu Chemical website CSR Site

http://www.shinetsu.co.ip/en/csr

2 p.13 CSR Promotion Structure 3 p.19 Legal Compliance, Fair Corporate Activities

4 p.14 Risk Management 5 p.25-27 Response to climate change

# Legal complince, fair corporate activities

**Shin-Etsu Group Key CSR Issues** 

**Key Issues** 

### **Health and safety for workers**

#### **Ensuring Full Compliance Awareness**

The Group emphasizes the importance of Compliance with Laws and Regulations in the Corporate Mission Statement and periodical management objectives. We always work with strictly compliance with laws and regulations.

In the event of promulgation of or amendments to legislation pertaining to corporate activities, the Legal Department serves in a central role by issuing internal bulletins and disseminating knowledge of these changes.

All of the officers and employees submit a Compliance Pledge to the Company. For the eventuality of inappropriate action occurring, disciplinary measures are available.

In addition, officers and employees can consult with and report to the Compliance Consultation Office related to violations of the rules and regulations as well as laws and ethics. The office then carries out a detailed investigation in response to the information received. With necessary investigations, the office will take necessary corrective actions. Confidentiality will be maintained for consulters and whistleblowers. There is no unfavorable treatment as a reason for consulting and reporting.

#### **Initiatives Aimed at Preventing Corruption**

The Company has created the Anti-Bribery Regulations and prohibits actions that involve unfair transfer of profit from or to parties such as domestic or foreign government officials, customers and business partners. Moreover, by having a Compliance Pledge, we assuredly prevent unfair benefits or unfair demands in respect to our customers, domestic or foreign government officials

and business partners. Also, the status of compliance with ethical standards is one item included in personal evaluations. Furthermore, we provide education on preventing bribery and carry out regular internal audits for corruption, embezzlement and bribery.

#### **Export Control**

From the viewpoint of maintaining world peace and security, the Company has created the "Control Program on Security Control" to comply with the Foreign Exchange and Foreign Trade Act and other export related legislation. The followings are our initiatives based on this program.

- Classification, customer review and transaction review when exporting products
- · Internal audit
- Training officers and employees and instruction to Group companies

#### **Cutting Ties with Anti-social Forces**

The Group declares in its the Basic Policy on Internal Controls that the Group shall adopt a consistently resolute attitude towards anti-social forces and shall take measures necessary to cut itself off from any and all associations with them. In accordance with this policy, we will endeavor to develop internal systems under the leadership of the department in charge of managing these issues. At the same time, we are promoting the signing of memorandums and letters of confirmation with customers and business partners.

In addition, we are working closely with external specialized agencies.

#### workplace where people can "prevent the occurrence of serious accidents" and where there is a "reduction of lost time incidents to zero".

The Group is working on having a comfortable and safe

#### **Occupational Safety**

Each of Group's plant clarifies every single possibility that could cause any kind of injury or illness and works hard to eliminate those risks.

In addition, they are KY¹ hazard prediction activities e.g. pointing and calling prior to work and reconfirming

Furthermore, the workers are taking measures against unsafe areas by regularly collecting "close calls and other incidents of concern" from case examples of workers who have experienced close-call incidents and matters of concern. At the same time, we share our risk information and prevent similar accidents by disclosing this risk information internally and externally.

Risk prediction activities workers will confirm and reliably carry out activities and safe working methods in order to prevent the occurrence of possible disease or

#### **Process Safety and Prevention Plan**

Prevention of serious accidents is a top priority in the Group, and we continue to work on a variety of safety and disaster prevention activities.

Since fiscal 2013 we have worked to enhance safety management by performing risk evaluations and by implementing effective safety measures, particularly of envisaged abnormal plant conditions.

The Company has been participating in the Japan Society for Safety Engineering's Japan Safety Competency Center since its inauguration in fiscal 2012. Each plant uses the center's "Safety Evaluation System" to further improve the situation and works even harder on the Process Safety and Prevention Plan.

#### **Education and drills**

To keep plant operation constantly safe, it is important for each employee to improve his/her skills and knowledge and be aware of danger.

So besides providing safety education such as on material handling and possible dangers involving processes as well as simulating possible dangers, we plan and conduct emergency drills for abnormal situations such as major earthquakes or fires. In addition, we work on handing down operation at skills for manufacturing equipment.

Furthermore, we are working to foster an awareness of safety by creating a workplace atmosphere in which operation processes and rules are observed.

#### **Awarded for High-Pressure Gas Safety**

Kashima Vinyl Chloride Monomer Co., Ltd. has been working on safety first, accident free activities since the start of its operation in 1970.

Masayuki Shimada, the High Pressure Gas Production Safety Officer of the Company was awarded the fiscal 2015 High Pressure Gas Safety Kanto/Tohoku Industrial Safety Director award by the Ministry of Economy, Trade and Industry Kanto/Tohoku Industrial Safety and Inspection Department. Mr. Shimada was highly evaluated and awarded for his total management efforts, and improvement of technology, education and maintenance of equipment and also his contribution to the improvement of the manufacturing methods of high-pressure gas in order to prevent high-pressure gas disasters.



Close-Call (Hivari-Hatto) Incidents

http://www.shinetsu.co.jp/en/csr/csr\_society.html

Regarding Compliance with Competition Laws and the Rules related to contact with other companies in the same industry (competitors). In fiscal 2015, the officers and employees of the Company and major Group

competition laws for officers and employees with the Guidelines companies inside and outside the country took the course.

The Group conducts webinars to ensure compliance with the competition

Ⅲ-3. 独占禁止法に違反すると laws. This course aims to disseminate a better understanding of 独占禁止法に違反すると、 行政上、刑事上、民事上の責任が発生します。 公正取引委員会から行為を止めるよう命令 されたり、多額の課徴金を課せられます。 2)会社や従来員に刑事罰が料せられます。 3)会社に対して、損害賠償請求などが 起こされます。

Conduct webinars to ensure compliance with the competition laws

#### **Environmental Control and Safety Audits**

In order to confirm that activities such as environmental conservation, occupational safety and health, process safety and prevention plan are carried out as planned, the Group conducts an audit.

In referring to cases from other companies in fiscal 2013, we communicated the status of "Thorough Management of Plant Safety" and "Nonroutine Work Safety Measures" within the company. The fiscal 2015 audit was conducted focusing on these points. Their implementation status in fiscal 2015 was conducted as a special audit theme.

#### **Health Considerations**

We work on promoting worker's healthy life-styles both physically and mentally and work to prevent any possible disease by encouraging them to undergo physical check-ups, receive necessary advice and counseling, and to join in physical activities.

Our head office and branch offices have a Health Committee, and each plant has a Safety and Health Committee. The committee works to improve the workplace environment and to promote worker's health with advice and information from industrial physicians. We also have special programs such as physical fitness checks and seminars which help workers to maintain and improve their physical conditions.

Furthermore, we have set up Family health consultation with our health insurance union and an affiliated insurance company. It is available 24 hours a day. This consultation can also be used by the family members of employees.

#### Reporting of accidents and lost time injuries

In fiscal 2015, there were four lost work time injuries in the Group companies in Japan. We have analyzed causes for each incident and reviewed safety on handling hazardous materials and possible hazardous operations to eliminate possible dangers and also secure equipment safety, and have implemented appropriate safety measures. Furthermore, we are working on revising the operation manuals to help prevent re-occurrence of the incidents.

We will continue to work on preventing work-related accidents complying with what was decided.

 Number of Lost-Time Injuries and Changes in Frequency Rates (Group companies in Japan)



#### **Safety Efforts of Overseas Group Companies**



#### D. Michael Parker

Safety Supervisor Plaquemine Site, Shintech Inc.

At Shintech Plaquemine and Addis, safety is not just a

program. It is fully integrated into every part of our process.

The emphasis is on having well trained employees in safety and emergency response. This high level of quality training has established a cultural mindset that all accidents and injuries are preventable and that Safety is "Everyone's Responsibility".

Our Emergency Response Team's efficiency and effectiveness has been elevated to the next level with value added training, state of the art equipment and recognition for their accomplishments.

The Safety Steering Committee with representatives from all units/departments has had a significant and positive impact on our safety culture by developing and implementing improvements to our safety process.

We are continuously trying to improve some part of our safety process, not relying on past performance but trying to be the best we can be so everyone goes home the same way they came to work... safe and healthy.

#### **Targets and Results**

Every fiscal year, the Group creates environmental and safety management plans based on Responsible Care code. The entire Group works on key issues such as the prevention of major disasters including explosions and fires and industrial accidents according to the management plan prepared.

Item	Priority Issues (Target)	Implementation Status for Fiscal 2015	Evaluation	Planned Implementation Items for Fiscal 2016	
_	1) Zero serious accident	Achieved target of zero serious accident	0	Zero serious accident	
Process Safety and Prevention Plan	Risk assessment of facilities and processes, and implementation of preventive measures	Implemented assessment of process risks     Maintained operation manuals     Implement non-routine work, safety measures for work	0	Review non-routine work and operational safety measures     Application of Security Evaluation System by the Japan Safety Competency Center     Inspection of criteria for hazardous material storage facilities and their management conditions	
ıfety and	Improvement of facilities and maintenance management	Investigated causes of facility troubles and formulated measures to prevent recurrence     Implemented planned facilities maintenance	0	Investigate causes of facilities issues and prevent recurrence     Improve facilities maintenance	
Process Sa	4) Reliable emergency response	Implemented worst-case scenario measures for serious disasters and earthquakes     Maintained emergency-response criteria and manuals     Enhancement of business continuity planning training	0	Implement worst-case scenario measures for serious disasters and earthquakes     Maintenance of emergency-response criteria and manuals     Enhance business continuity planning training	
	Achieve zero accidents requiring an absence of a day or more	The Shin-Etsu Group: four person Shin-Etsu Chemical achieved zero accident	×	Achieve zero accidents requiring an absence of a day or more	
	2) Rate of accidents not accompanied by an of absence a day or more: 0.5 or less	The Shin-Etsu Group achieved its goal with a rate of 0.22 Shin-Etsu Chemical achieved its goal with a rate of 0.18	0	Rate of accidents not accompanied by an absence of a day or more: 0.5 or less	
	3) Improve work safety	Promoting "zero accident" activities (practiced Hazard prediction activities, pointing and calling, and 5S activities1) Implemented improvement and promotion of close-call incident proposals and improvement proposals Implemented assured horizontal expansion of accident examples of the Group companies	0	Implement "zero accident" activities (practice Hazan prediction activities, pointing and calling, and 55 activities)     Implement improvement and promotion of close-cal incident proposals and improvement proposals (setting of promotion targets)     Implement assured horizontal expansion of accident examples of the Group companies	
afety	Review and reorganize operation manuals and ensure strict compliance	Strengthened hazardous work management and maintained manuals	0	Reflect "Review non-routine work and operational safety measures" into manuals	
Occupational Safety	5) Work risk assessment and preventive measures	Implemented work risk assessment based on plans	0	Extract risk, enhanced and upgrade details of measures     List predicted risks at time of non-routine work and overhaul safety measures     Identify hazardous work risks due to difficulty improving facilities and strengthen monitoring frameworks of relevant works     Implementation of the risk assessment of the hazardous materials and their appropriate labeling.	
	6) Safety measures of construction and non-routine work	Clarified work instructions and procedures and implemented hazard prediction activities Applied thorough construction rules Created and made thorough confirmation method of pre-operation, work completion and recovery	0	Clarify work instructions and procedures and implement hazard prediction activities Apply thorough construction rules Create and made thorough confirmation method of pre-operation, work completion and recovery	
	7) Training and drill promotion	Implemented education and training based on plans     Promoted acquisition of qualifications     Implemented rules and principle education to ensure process safety	0	Plan promotion of education and training     Promote acquisition of qualifications	
	8) Ensuring subcontracting safety	Implemented review of safety cooperative structure with subcontractors     Implemented review and provided safety operation procedures manuals, harmful and hazardous information (SDS)	0	Strengthening the guidance of safety management to subcontractors and promoting risk assessment activities     Review and provide safety operation procedures manuals, harmful and hazardous information (SDS)	
Occupational health	Create and maintain comfortable workplace environment	e workplace • Thorough Implementation of chemical substance		Promote working environment measurements and creation of appropriate working environments Thorough Implementation of chemical substance handling education and strict wearing of personal protective equipment Implementation of the revised Industrial Safety and Health Act Promote workplace communication	
Occupatic	2) Promote physical and mental health wellbeing	Implemented follow-up and utilizing medical examination results     Compliance with additional inspection criteria due to regulatory amendments     Promoted health promotion program     Promoted mental health well-being programs	0	Follow-up and utilizing medical examination results     Compliance with additional inspection criteria due to regulatory amendments     Promote health promotion program     Promoting Stress check	

<sup>1 5</sup>S activities

\* Evaluation standards

©: Goal achieved O: Goal basically achieved A: 50% achieved X: Far from achieved

Seiri Seiton (put thing straight), seiso (cleaning), seiketsu (cleanliness), and shitsuke (bringing-up). The name "55" comes from the fact that the first letters of each word begin with "s."

<sup>\*</sup> Evaluation standards Shin-Etsu Chemical CSR Report 2016 22

## Energy-saving, resource-saving and the reduction of the environmental impact

#### **Environment Management**

#### **Environment Management System**

The Group works on Energy savings, waste and chemical substance management. We annually create the Shin-Etsu Group Environmental Safety Management Plan in accordance with the Responsible Care code and set goals using numerical numbers. The Company and all the Group companies set goals annually according to this plan and work on their activities.

In order to increase the level of activity, each plant and the Group companies perform several internal audits a year to check if their goals are appropriately set and the progress they have achieved. In addition, we check the activities and achievements plants have made also through periodical environmental control and safety audits.

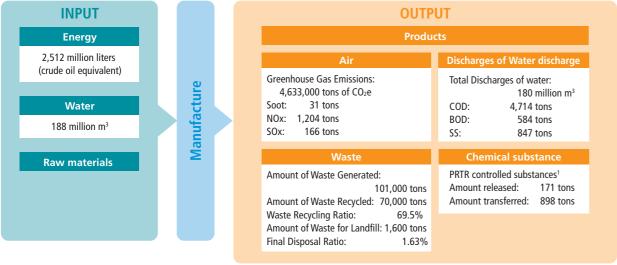
#### **Promoting the Reduction of Environmental** Impact

The Group constantly works so that manufacturing products will have the least influence on the environment. Furthermore, we do examinations so that our products will have the least environmental influence, which is also energy saving as well as resource saving. Research, Manufacturing and Sales divisions are united to develop such products. These well-examined products are used in various fields including industry, our daily lives as well as renewable energy.



Environmental Control and Safety Audits

#### Reducing the Environmental Impact of Business Activities



1 PRTR controlled substances

426 substances designated as Class I designated chemical substances from the "Pollutant Release and Transfer Register in the Act on Confirmation, etc. of Release Amounts of Specific

Chemical Substances in the Environment and Promotion of Improvements to the Management.

\* In order to clearly define the reduction efforts, the average power CO<sub>2</sub> conversion factor from 2000-2009 is used.

\* Waste standards and PRTR controlled substances differs from country to country, the figures for the Company and Group companies in Japan were counted.

\* Waste recycling ratio indicates the ratio of an amount recycled to total waste generated

\* Final disposal ratio indicates the ratio of an amount of landfill waste to total waste generated





#### **Targets and Results**

The following are Targets and Results for environmental protection and chemical substance management for fiscal 2015 as well as Targets for fiscal 2016.

tem	Priority Issues (Target)	Implementation Status for Fiscal 2015	Evaluation	Planned Implementation Items for Fiscal 2016
	1) Zero environmental accidents	Achieved target of zero environmental accidents	0	Zero environmental accidents
	Thorough environmental management	Continued appropriate compliance with environmental laws and regulations		Appropriate compliance with environmental laws and regulations
Environmental conservation	3) Promotion of energy savings (Reduction of energy consumption in intensity at an annualized rate of 1%)	The Shin-Etsu Group reduced at an annualized rate of 3.2% Shin-Etsu Chemical reduced at an annualized rate of 3.1%	0	Reduction of energy consumption in intensity at an annualized rate of 1%
	4) Reducing greenhouse gas emissions (Intensity reduction to 50% of 1990 level by fiscal 2015)	The Shin-Etsu Group reduced to 56.9% and Shin-Etsu Chemical 53.8% compared to the fiscal year 1990	0	Reduction to 45% of 1990 level in intensity by fiscal 2025     Appropriate response to the revised Fluorocarbons Recovery and Destruction Law
	5) Reduce waste (Achieve zero waste emission (waste to landfill ratio to 1% or less))	Landfill waste to total waste ratio of 1.63%	Δ	Promote achievement of zero waste emission (waste to landfill ratio to 1% or less) Promotion of waste generation reduction through intensity unit
	6) Reduced emissions of substances causing water pollution or air pollution (Reduction in intensity at annualized rate of 1%)	Reduced at an annualized rate of 3.7% for BOD¹ Reduced at an annualized rate of 5.7% for soot and 5.6% for SOx  **Reduced at an annualized rate of 5.7% for soot and 5.6% for SOx**  **Reduced at an annualized rate of 5.7% for soot and 5.6% for SOx**  **Reduced at an annualized rate of 3.7% for BOD¹  **Reduced at an annualized rate of 3.7% for BOD¹  **Reduced at an annualized rate of 3.7% for BOD¹  **Reduced at an annualized rate of 5.7% for BOD¹  **Reduced at an annualized rate of 5.7% for SOX**  **Reduced at a	0	Regular review and strict compliance with specific facility using hazardous substances pertaining to the Water Quality Pollution Control Act and installation standards for designated storage facilities
	7) Reduction in water withdrawals (Reduction in intensity at annualized rate of 1%)	The Shin-Etsu Group reduced in intensity at an annualized rate of 6.4% Shin-Etsu Chemical reduced in intensity at an annualized rate of 7.9%	0	Achieve reduction of water withdrawals in intensit by 1% at an average annual rate     Plan and implement measures for improving recycling water ratio
Chemical substance management	Thorough new chemical substance management	Thorough management of permitted production volumes (confirmed) and production results Communicated reporting of harmful substance information, etc., at the time of acquisition	0	Thorough management of permitted production volumes (confirmed) and production results  Communicate reporting of harmful substance information, etc., at the time of acquisition
	Compliance with legal and other requirements for chemical substance control	Responded to revisions and strict compliance with Chemical Substances Control Law², Industrial Safety and Health Act, PRTR Law³, Poisonous and Deleterious Substances Control Act     Strict compliance with overseas laws and regulations	0	Respond to revisions and strict compliance with Chemical Substances Control Law, Industrial Safety and Health Act, PRTR Law, Poisonous and Deleterious Substances Control Act     Compliance with overseas laws and regulations     Control of PCB waste and process required by the deadline
	Information disclosure on harmfulness of chemical substances	Information disclosure and awareness raising of substances handled by contractors and subcontractors	0	More information disclosure and awareness raising of substances handled by contractors and subcontractors

Biochemical oxygen consumption. The amount of oxygen required when decomposing contaminants in the water by microorganisms. This indicates the degree of water pollution.

2 Chemical Substances Control Law Short for "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc." A law intended to prevent environmental pollution by chemical substances that can

Short for "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof." A law intended to promote improved self-directed control of chemical substances by business operators, in order to prevent the risk of damage to the environment

k Intensity unit A measure calculated from the production volume of a reference product.

\* Average annual rate for implementation
Average annual reduction rate from fiscal 2012 to fiscal 2015
\* Evaluation standards

②: Goal achieved ○: Goal basically achieved △: 50% achieved ×: Far from achieved

# Energy-saving, resource-saving and the reduction of the environmental impact

#### **Response to climate change**

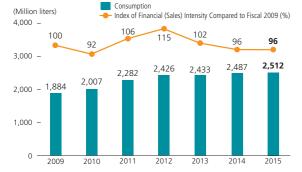
Mid-term target (until Fiscal 2015)	Reduce greenhouse gas emissions intensity to 50% of 1990 level by 2015
Results and evaluation	The Shin-Etsu Group was at 56.9%, and Shin-Etsu Chemical was at 53.8%, and they could not achieve the target
New mid-term target (Fiscal 2016 and after)	Reduce greenhouse gas emissions to 45% of the 1990 level in emission intensity unit by 2025

Fiscal 2015 target	Reduce energy consumption in intensity at an annualized rate of 1%
Fiscal 2015 results	The annualized reduction rate from fiscal 2012 to fiscal 2015 was 3.2% for the Shin-Etsu Group and 3.1% for Shin-Etsu Chemical
Fiscal 2015 evaluation	Both the Shin-Etsu Group and Shin-Etsu Chemical reduced 1% or more at an annualized rate and have achieved the target
Fiscal 2016 target	Reduce energy consumption in intensity at an annualized rate of 1%

Starting from fiscal year 2010, the Group have been promoting energy savings and installation of a cogeneration system in order to achieve the mid-term goal which is "Reduce the greenhouse gas emission intensity rate for the fiscal year 2015 to 50% compared to that of the fiscal year 1990". The results were that the Group's greenhouse gas emission intensity was 56.9% of the 1990 level in fiscal 2015 and the Company was at 53.9%, but we were only slightly short of that target.

In fiscal 2016 we set a new mid-term target of "reducing the greenhouse gas emissions intensity to 45% of the 1990 level by 2025", and we are working towards that goal.

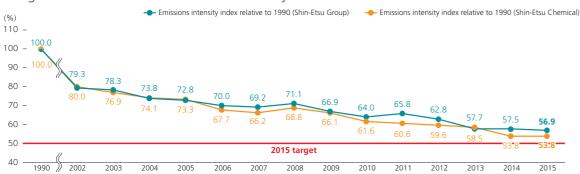
#### ■ Energy Consumption (crude oil equivalent)



#### Greenhouse Gas Emission Volume Trends



#### Changes in Greenhouse Gas Emissions Intensity Relative to Fiscal 1990 Levels



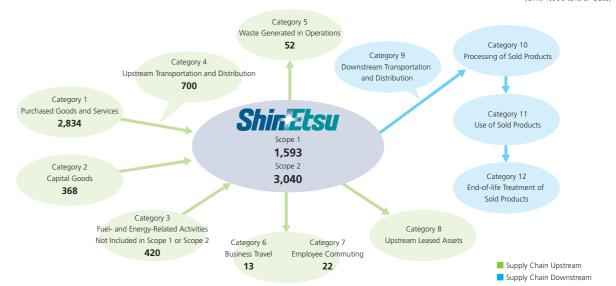
#### **Scope 3 Greenhouse Gas Emissions**

The Group's Scope 3 greenhouse gas emissions for fiscal 2015 were 4,409 thousand tons of CO2e, amounting to 49% in the supply chain<sup>1</sup>.

1 Supply chain Refers to all stages of a product from raw material production until it reaches the final customer

#### Scope 3 Emissions by Category

(Unit: 1,000 tons of CO<sub>2</sub>e)



Greenhouse Gas Emission Calculation Range

SCOPE 1: The company itself has direct emissions from facilities it owns or governs (example: emissions during combustion of materials such as heavy oil and natural gas).

SCOPE 2: The company itself has emissions during production of purchased energy (example: emissions during power generation of purchased pow SCOPE 3: Emissions from the supply chain of the company itself

#### Hold a lecture about "the prevention of global warming"

The Shin-Etsu Chemical Naoetsu Plant welcomed a lecturer from the General Foundation Joetsu Environmental Sciences Center, who gave a lecture related to the prevention of global warming. The lecture was a good opportunity to learn about the current global warming situation through energy saving guizzes related to day-to-day life, in addition to commentary about country rankings for greenhouse gas generation and energy used in daily life.





# Energy-saving, resource-saving and the reduction of the environmental impact

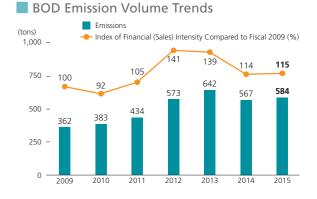
#### **Water resource conservation, water pollutant elimination**

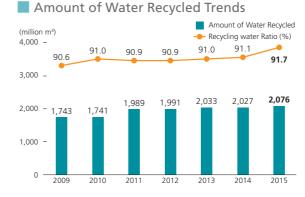
# Achieve 1% reduction of water withdrawals in intensity at an annualized rate Achieve 1% reduction of water pollutant discharge in intensity at an annualized rate The annualized reduction rate from fiscal 2012 to fiscal 2015 was 6.4% in the water withdrawals amount and 3.7% in the BOD emissions amount The annualized reduction rate was more than 1%, and the target was achieved Achieve 1% reduction of water withdrawals in intensity at an annualized rate Achieve 1% reduction of water pollutant discharge in intensity at an annualized rate

The Group's major manufacturing plants are located where clean water is abundant. However, due to the scarcity of water in many regions of the world, the United Nations Environment Program (UNEP) has predicted that water scarcity in some regions will become serious by the year 2025. To enable the Group to continue to operate in those regions where there is a risk of water scarcity, we are actively engaged in conserving water resources by reducing our daily water withdrawals and recycling and utilizing water.

We also comply with regulations concerning water contaminants in emitting water so that the water we discharge will be of sufficient quality with sufficient values. We also check the water quality ourselves for verification.

# 







Mr. Makoto Koganezawa, who is in charge of management of water in Shin-Etsu Chemical Gunma Complex Isobe plant

MEB Environmental Data http://www.shinetsu.co.jp/en/csr

### Thermal energy recycling initiatives

#### Each plant in Shin-Etsu Chemical is working on the recycling of heat energy.

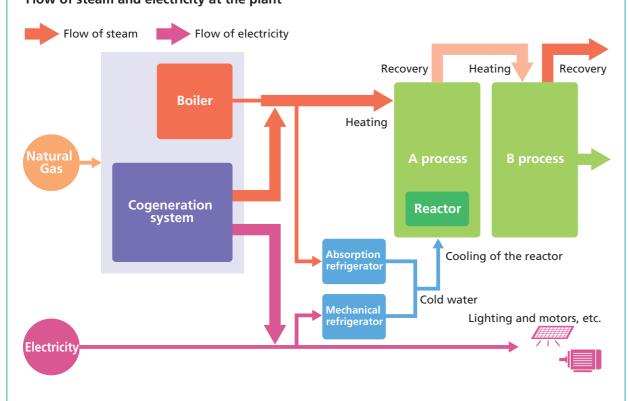
#### ■ Cogeneration promotion

Steam and electricity are produced in a plant using a cogeneration system<sup>1</sup>. Electricity made with the cogeneration system is supporting the operation of manufacturing facilities. In addition, steam is being used for heating and thermal insulation for manufacturing equipment. Steam used for heating will not be emitted but will be reused for manufacturing equipment in which steam with lower temperature can be used. The steam is finally changed into water to be collected to be used again.

#### ■ Waste heat recovery

Heat is recovered from the production process and is used as thermal energy in another process. Furthermore, the remaining waste heat is mainly collected as steam to make cold water in the absorption refrigerator. This chilled water is used for cooling the manufacturing equipment, etc.

#### Flow of steam and electricity at the plant



1 Cogeneration system (heat and power combined)

This system generates power with engines, turbines and fuel cells using natural gas, petroleum, liquefied petroleum gas, etc. and simultaneously collects heat which would be generated.

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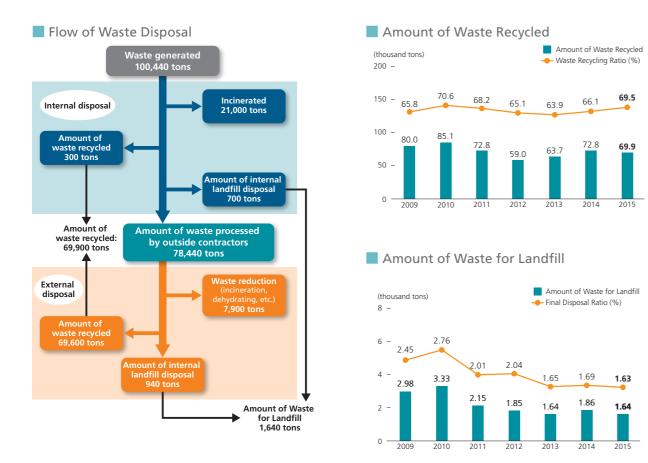
# Energy-saving, resource-saving and the reduction of the environmental impact

#### **Waste reduction**

Fiscal 2015 target	Achieve zero waste emissions (landfill waste 1% or less of the final amount of all waste generated)					
Fiscal 2015 results	The final waste landfill disposal rate was 1.63% in the Shin-Etsu Group and 2.02% in Shin-Etsu Chemic					
Fiscal 2015 evaluation	The target was not achieved					
Figure 2016 toward	Achieve zero waste emissions					
Fiscal 2016 target	Promotion of reduction of waste generation through intensity					

The production volume in fiscal 2015 increased compared to fiscal 2014, but the generated amount of waste was reduced by 8.7%. Also, the amount of waste recycled was reduced by 4.0%, and the amount of waste for landfill was reduced by 12.1%. However, due to the characteristics of the manufacturing formula, a zero waste emission could not be achieved because there is a process where a certain amount of residue occurs. We will continue to work on fewer emissions and less waste for landfills.

We have external contractors to handle our disposals. We check to confirm that the contractor properly handles disposals by regularly inspecting the site, etc.



<sup>\*</sup> Because waste standards differ from country to country, the figures for the Company and Group companies in Japan were counted.



# Shin-Etsu Group Key CSR Issues

#### **Key Issues**

# **Energy-saving, resource-saving and the reduction of the environmental impact**

#### **Resource recycling**

The Group collaborates with customers and related industry groups, using cutting-edge technologies to recover used products, extract resources, and reuse them in the Group's products. Through these initiatives, it is possible to reduce the waste output of our customers and the Group itself. We are also contributing to environmental conservation through reuse of resources.

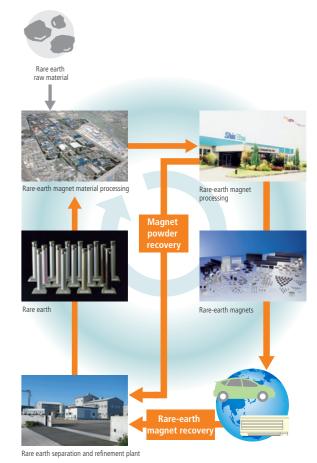
#### Rare Earth Magnet Resource Recycling

The Group manufactures rare earth magnets by our integrated production process using separation and refinement techniques to extract rare earth magnets from rare earth raw materials.

As one of the measures to achieve stable procurement of raw materials, since 2007, the Group has been recycling magnet powder generated by our rare earth magnet manufacturing processes. Furthermore, from March 2013, we have also been developing techniques for recycling rare earth magnets used in recovered power-saving air conditioners and hybrid cars in order to re-use resources.

These initiatives have made it possible to reduce the environmental impact that comes along with resource development and to safely and securely protect the valuable rare earth resource. The Group's rare earth magnets create significant economic and social value as recycled products and also contribute significantly to energy conservation.

#### Rare-Earth Magnet Resource Recycling Process



#### **Recycling of PVC Products**

Initiatives for the recycling of products containing PVC are making progress. There are various methods for recycling PVC, the most common of which is material recycling. Material recycling uses used PVC products as raw materials to create new PVC products. PVC pipes, flooring materials and other PVC products are not greatly influenced by foreign substance contamination, so various kinds of recycling are conducted for those products. In particular, 60% of used PVC pipes and joints are recycled for reuse in new PVC pipes and joints, and 70% of agricultural film is recycled for use in flooring material.



Mr. Masao Shimizu, who is in charge of the recycling of rare-earth magnets in Shin-Etsu Chemical Takefu plant

# **Energy-saving, resource-saving and the reduction of the environmental impact**

#### **Conservation of biodiversity initiatives, pollutant countermeasures**

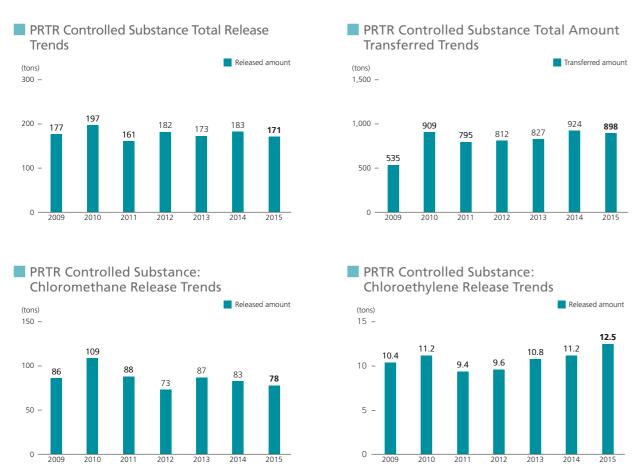
#### **Conservation of Biodiversity**

The Group aims for environmentally considerate product design starting already from the product development stage. At the same time, we are also meeting our responsibility as a chemical company by working actively to ensure strict control of chemical substances, mitigate global warming, reduce energy consumption, reduce the amount of waste generated, prevent water pollution, and make other environmental contributions. We are also engaged in activities such as river cleaning in areas neighboring our plants. Furthermore, we request that our business partners implement environmental conservation initiatives concerning forest conservation and similar activities.

The Group preserves the earth's ecosystem through these efforts.

#### **Release of Chemical Substance**

The Group has chemical substances which requires strict release management. The Group works on reducing chemical release with proper manufacturing processes as well as establishing the proper operation conditions of pollutant treatment facilities. In addition, the Group reports the amount of chemical substance released and moved in natural environment according to the PRTR system¹ in the PRTR Law². The main factor in the increase of chloroethylene release is the increase in the number of work days at the PVC plant. On the other hand, release amount per consumption has declined by 5.2% compared with fiscal 2014 due to the production equipment running at optimal conditions.

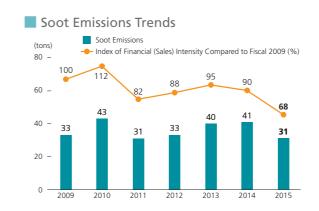


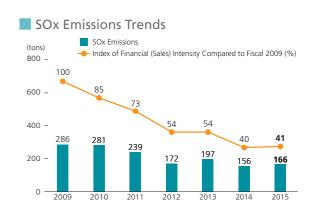
### \* The figures for the Company and Group companies in Japan were counted based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and the PRTR.

#### **Prevention of Air Pollution**

The Group is working to reduce emissions of air pollutants by setting emission reduction targets at each of our Group companies and by converting to fuel components with less sulfur. Each group company carried out regular investigations on emitted gas to confirm compliance with laws and regulations.

In fiscal 2015, SOx Emissions slightly increased due to an increase in production, but soot emissions decreased by 23.0%.





#### Prevention of Soil Pollution

Groundwater and soil monitoring at each plant is being carried out in accordance with the Soil Contamination Countermeasures Act, and we make sure that we are in compliance with laws and regulations.

#### Pulp purchasing biodiversity conservation efforts

#### Tomoyoshi Tada

Shin-Etsu Chemical Headquarters Material Department

We have bought pulp derived from wood as the main raw material of cellulose derivatives in the Group. Upon purchase, we ask all our pulp purchase partners to consider conservation of biodiversity, and we have confirmed that they all have obtained national and/or international forest certifications. In addition, we work hard to know about our partners' activities on biodiversity activities.



Chemical Substance release and transfer notification based on the "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof."

2 PRTR Law

Short for "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof." A law intended to promote improved self-directed control of chemical substances by business operators, in order to prevent the risk of damage to the environment.



<sup>1</sup> PRTR system

# Key CSR Issues

**Key Issues** 

**Shin-Etsu Group** 

# **Product quality improvements and product safety control**

# Energy-saving, resource-saving and the reduction of the environmental impact

#### **Environmental Accounting**

#### **Environmental Accounting**

In fiscal 2015, the Company referring calculated to the Environmental Accounting Guidelines 2005 prepared by the Ministry of the Environment in Japan calculated the investments and expenditures involved in the reduction of the environmental impact of air pollution, water pollution, environmental release of chemical substances, etc.; energy-saving measures to conserve the global environment; and waste reduction and recycling to improve reuse of resources.

#### Environmental Conservation Costs in Fiscal 2015

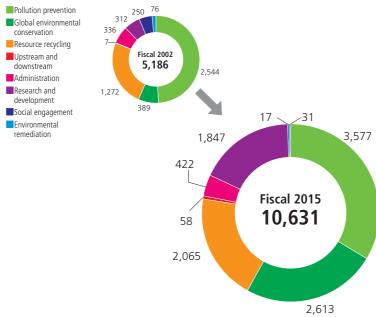
(Millions of Yen)

Category	Details	Investment	Expenditure
Plant area costs		979	8,255
(1) Pollution prevention costs	Prevention measures for air, water, noise and other types of pollution	435	3,577
(2) Global environmental conservation costs	Energy saving and global warming mitigation measures	310	2,613
(3) Resource recycling costs	Waste reduction, recycling and other measures	234	2,065
Upstream and downstream costs	Green purchasing and container and packaging measures	0	58
Administration costs	Environmental management, environmental impact monitoring and environmental education measures	3	422
Research and development costs	Research and development of environmentally conscious products and processes	0	1,847
Social engagement costs	Donations and contributions to environmental saving	0	17
Environmental remediation costs	Assessment, handling and other costs related to environmental pollution	0	31
Total		982	10,631

# Economic Benefits of Environmental Accounting in Fiscal 2015

D	etails of benefits	Economic benefit (millions of Yen)
Energ	y savings	554
Impro efficie	oved production ency	1,446
	Production process	1,306
	Secondary materials costs	140
	ction in waste nent costs	-8
Profit resou	from sale of valuable rces	126
Total		2,118

#### Cost of Environmental Conservation (millions of yen)



#### **Quality control**

The Group is making an effort on stable supply of the high quality products requested by the customers.

Each the Company's division and/or Group company are promoting quality control activities. The sales department, research and development department, manufacturing department and quality assurance department cooperate in roles as in the following in order to meet the demands of our customers.

Sales department

Recieve to the customer requests, and promptly inform them to the research and development department as well as the manufacturing department

 Research and development department as well as the manufacturing department

Utilize the customer requests for the improvement of existing products and research and development of new products

• Quality assurance department

Make a final confirmation on product taking into account the product characteristics and the customers

Almost all of the Group's manufacturing bases, both domestic and overseas, have obtained certification of the quality control systems such as ISO 9001, ISO/TS 16949, etc.

#### **Response to complaints**

We have established a strict rule to make an initial response to all quality complaints from customers within 48 hours of receipt.

In particular, the recall and product liability problem that has a social impact is defined as a critical quality claims and is given high priority distinguished from other claims. When a serious claim occurs, it is immediately reported to the top management so that a company-wide response can be implemented.

#### **Quality audits and support**

To solve the zero quality problem, the claim and complaint information from the customers are closely examined. In quality audits, quality control activities and the quality control system are checked and improved. Also, quality control activities are evaluated according to two different viewpoints, which are the customers' viewpoint and quality cost viewpoint. We work to find the root cause of quality issues and to make an effort toward the recurrence prevention.

Furthermore, Six Sigma programs are deployed on a company-wide basis in order to improve the quality level.

1 Six Sigma programs

Quality improvement method developed by Motorola in the 1980s. Focused on processes where quality variation appears, it is designed to minimize variation within the processes and thereby reduce the incidence of quality defects. This approach has been adopted across the Group.



Quality audits

List of Shin-Etsu Group companies with ISO 9001 certification http://www.shinetsu.co.jp/en/company/quality.html

# **Promoting CSR procurement and the diversification of supply sources**

#### **Product safety control**

Product safety is being managed from product development to transport based on internal regulations.

The safety is confirmed and risk assessment is performed for environment and health in the development of new chemical substances. We also focus on developing products as well as their manufacturing technologies which do not use hazardous substances that have been designated by the Industrial Health and Safety Law and Chemical Substances Control Law<sup>1</sup>, as well as the EU RoHS Directive<sup>2</sup>. Furthermore, we submit necessary notifications and reports according to laws and regulations.

Customers are offered information such as product hazards and risks in SDS³ in order to ensure proper transmission of information to the supply chain. Through SDS, customers are requested to handle products safely by complying with laws and regulations, installing abatement equipment, wearing protective equipment, etc.

As a transportation safety measure, we issue Yellow Cards<sup>4</sup> and/or Container Yellow Cards<sup>5</sup> that are affixed to containers. Furthermore, pictorial indication of hazard and harm is also implemented in accordance with GHS<sup>6</sup>.

- Chemical Substances Control Law
   Short for "Act on the Evaluation of Chemical Substances and Regulation of Their
   Manufacture, etc." A law intended to prevent environmental pollution by chemical
   substances that can be harmful to human health or to ecosystems.
- 2 RoHS (Restriction of the Use of Certain Hazardous Substances) Directive EU directive on restricting the use of certain hazardous substances in electrical and electronic equipment.
- 3 SDS (Safety Data Sheet)

SDS lists the physical and chemical properties of the chemical substance together with harmfulness and emergency response procedures. Designed to promote safe use of chemical substances and prevent accidents and incidents, SDS are supplied by manufacturers, importers and distributors to customers at the point of sales or shipment.

4 Yellow Cards

The yellow cards are cards on which all relevant information on treatment required in case of an accident during transportation of chemical substances is described. The cards are handed to the transport contractor to be brought by tanker lorry or other means at the time of transportation.

5 Container Yellow Cards

The standard yellow card system is not suitable for use with mixed cargoes and small-lot deliveries. Instead, each container carries a label displaying safety information such as UN number of chemical name and emergency response procedure number.

6 GHS (Globally Harmonized System of Classification and Labeling of Chemicals) Internationally standardized system of classification and labeling of chemicals.

#### **Product safety management in the laboratory**

#### Sachiko Yamada

Manager's office

Shin-Etsu Chemical Co., Ltd. Silicone-Electronics Materials Research Center

About 300 kinds of new silicone products are produced every year in the Silicone-Electronics Materials Research Center. In recent years, the circumstances surrounding chemical substances have been rapidly changing, and the substance survey and safety management of new products have become very important. My job is to investigate substances in new products developed by researchers. We work to acquire the chemical substance CAS Registry Number¹, to submit applications concerning domestic and foreign laws and regulations, to judge GHS in view of the safety control and to create SDS as necessary in cooperation with the business department and factory quality assurance department.

1 CAS Registry Numbe

I CAS Registry Number

Compound numbers are used in the Chemical Abstracts journal issued by the American Chemical Society.

Numbers identify chemical substances which are submitted as material information for the regulatory report.



#### **Basic Procurement Policy**

A Basic Procurement Policy has been formulated for the purchasing of supplies needed for production activities, including raw materials, sub materials including transportation packaging, and machinery and equipment. This policy is ensured in the Group and posted on the website. Business partners are expected to understand the Basic Procurement Policy and asked to incorporate the content of the Policy into their supply contracts.

# Compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors

Staff members in charge of purchasing and procurement attend external seminars and internal training sessions to learn specific examples in order to support thorough compliance with the Subcontract Act. Also, we make sure that all the subcontractors that are applicable for the Subcontract Act are in full compliance by periodical checks and through new transaction report.

# Initiatives Aimed at Eliminating the Use of Conflict Minerals

In our Basic Procurement Policy, the Group has declared our dedication to eliminating conflict minerals¹ from all product procurement. We ask that all business partners adhere to this policy, and we regularly perform studies of pertinent minerals, tracking their production all the way back to the smeltery level.

1 Conflict minerals

Minerals used to fund conflicts between the Democratic Republic of the Congo and its neighbor countries. These conflict minerals are tantalum, tin, gold, tungsten, and their derivatives.

#### **Procurement Audit**

Before and after transactions, the business partner is asked to complete a procurement audit checklist, the results of which are used for evaluation. Additionally, we visit business partners in Japan and overseas whenever necessary to carry out audits.

#### **Procurement Conferences**

The Purchasing Department holds a company-wide meeting every six months with all procurement department personnel company-wide to discuss material procurement. This meeting is not only for reporting material procurement but also for checking the status of CSR procurement. Training on CSR procurement and sessions to study latest cases inside and outside the company are also provided.



Procurement conferences

#### **Business Continuity Initiatives**

The Group has formulated a Business Continuity Plan and is prepared for contingencies. We would like business partners to understand the effectiveness and practicality of the Group's Business Continuity Plan and draw up a business continuity plan of their own.

# **Control of Chemical Substances Used as Raw Materials**

The Group checks the ISO 14001 status of business partners and considers preferential business transactions with business partners that have ISO certification so as to purchase materials of lower environmental impact. On making contracts on specifications for raw material supply, we work to confirm the following.

- The business partners' use of chemical substances with environmental impact in products and packaging, their environmental management systems
- Their handling of prohibited substances as stipulated in the RoHS Directive
- Their Green Partner certification status



# Respect for human rights, the development of human resources and the promotion of diversity

#### **Respect for Human Rights**

#### Observance of International Labor Standards

The Group respects the human rights of employees in accordance with the international labor standards through the International Labour Organization (ILO). The following items are confirmed every year whether or not they are properly implemented against the consolidated companies.

#### Confirmation Items

■ Training system list

Prohibition of child labor, proper working hours, decent wages, proper employment contract in writing, prohibition of inhuman treatment, prohibition of discrimination, freedom of association

#### Efforts for human rights awareness

The Group has established a Human Rights Enlightenment Promotion Committee. This committee holds regular human rights awareness training for directors and employees. Human rights Q & A are serialized in our internal company newspaper, and we compile a human rights enlightenment motto to coincide with our annual human rights week in December.

Furthermore, the Company has been a member of both the Tokyo Industrial Federation for Human Rights and the Osaka Dowa / Human Rights Issues Industrial Federation and participates proactively in events held by both federations as well as training sessions held by administrative organizations.

#### **Education/Training and Personal** Development

The Group supports employees to grow through various training systems. The training system has training for different staff grades, international adaptation training, auditing student system, environmental education, safety education and mental health education.

#### Conduct international adaptation training

The Group is expanding its business activities throughout the world. Competency to communicate in foreign languages is therefore an essential skill for smooth operations. Therefore, the Company offers the following kinds of training.

• English language training (meeting skills course and presentation skills course)

- Cross-cultural communication training
- Chinese conversation classes

#### Auditing system for students

In 1962, the Company established an auditing system for students. Under the learning system with the goal of improving the workforce, up to about ten operators at manufacturing sites of the Group each year are chosen and sent to study at universities for one year. In the 53 years since the system was introduced, a total of 521 employees have completed the program and are now functioning in various workplaces.

#### **Performance-based Personnel Evaluation Systems and Equal Opportunities**

The Company has introduced a personnel system that places importance on employee ability and work performance. This system proves useful for increasing employees' motivation, as their treatment reflects their performance, attitude, and evaluations of how they meet their challenges to achieve higher goals.

To operate the personnel system in a fair and appropriate manner, evaluation training is provided for all managers who conduct performance review so that they can carry out personnel evaluations in a fair way.

to make proactive contributions to workplace management and improvement, leading to impr

Quality Control. Or, activities in manufacturing industry that encourage employees

#### **Environment and** Training for different staff grades Specialized education General education Special education Quality control education Six Sigma education safety education S staff group/ General Advanced nanager level management training M staff group training · Patent training Training for adaptation to internationalization Course for management Specialized education Section Middle management training development trainning OC1 master course in environmental manager level English language external training control and safety training, meeting skills Mental health seminars ı belt tra Human rights English language Staff management Line management change training, presentation skills lunior manage QC intermediate Supervisor education level Leader training Chinese conversation Safety education classes Auditing student system (1 year) Special education Intercultural Junior leader training Basic education communication training Regular OC basic course New employee second-phase training New recruit education New employee induction training

Transparency is increased by making evaluation standards available and disclosing the results. In addition, there is a system of interviews between a person who evaluates and the person who is evaluated to ensure that they can communicate successfully.

During interviews, each staff member and his/her immediate superior are using Communication Sheets to ensure mutual awareness of the superior's expectations and are setting half-year goals. Furthermore, feedback on progress is given for further ability development.

#### **Experience as an auditing student** — 1 year to face myself —

#### Shota Suzuki

2015 Fiscal Year Auditing Student (Shin-Etsu Handotai Co., Ltd. Shirakawa Plant CZ Production Department)

As an auditing student for one year, I experienced university lectures, training at the head office, factory tours and dormitory life. Since all of this was new, I was greatly stimulated and was able to spend valuable time.

That one year was a short period of time, but I was able to spend meaningful days thinking about myself in the past and for the future. The time five of us auditing students shared in fiscal 2015 was very beneficial to me. I am committed to working hard to fulfilling my tasks using the knowledge and experiences I received as an auditing student.



Fiscal 2015 auditing students (This person is second from the right)

#### **Promotion of Diversity**

#### Active promotion of diverse human resources

As a group engaged in business operations around the world, the Group hires local employees at overseas group companies and hires foreign nationals in Japan.

The entire Group is also working to proactively employ people with disabilities and create environments where it is easy for them to work. Our employment population for persons with disability exceeds the legally mandated employment rate.

We have created the Internal Re-Employment Program for employees who have reached the retirement age of 60 years, which allows employees who wish to be re-employed to stay until a maximum age of 65.

Furthermore, the Group promotes the activities of women. In the next five years, along with supporting childcare or nursing care while working in this company, the Company will ensure that:

- 1. The rate of women when hiring is 40% for administrative positions and 10% for engineering positions.
- 2. The number of women in managerial positions including junior manager level will be doubled compared to the number in fiscal 2014.

#### ■ Employment Rate of Persons with Disabilities



#### **Active foreign employees in the Group**

#### Yun Don Hui and Wan Kai

Silicone Division, Shin-Etsu Chemical head office

Mr. Yun Don Hui (South Korean citizen) and Mr. Wan Kai (Chinese citizen) have a most interest in Japan with its state-of-the-art technology and have studied at universities in Japan. They also thought that working in Japan with what they learned would help them grow. While looking for work before graduation, they came to know the Company, and they joined it after feeling attracted to the world-class technology and management power.

They worked in a plant at first, and are currently working as sales representatives for silicone products in the Silicone Division of the Company's head office.



#### System for work-life balance

#### Childcare support system

The Group supports employees having and raising children. Employees can use the Company's childcare leave system for children up to three years old. About 40 employees on average use the childcare leave system in the Company and consolidated companies in Japan. In addition, employees can use the shorter working hour system and shorten their working hours for a maximum of two hours. This system can be used until children graduate from elementary school. Furthermore, three days of paid leave are granted when a spouse delivers a child.

Childcare is supported according to local laws and regulations in overseas Group companies.

# Main system for childcare support (Shin-Etsu Chemical)

		Chilo	lbirth		Three y	ears old	Enter elemer scho	ntary	Gradu fro eleme scho	mentary
	aternity leave				eks before and eeks after the th					
	leave				when a s childbirth					
Cł	Childcare									
	leave		* Legally 1.5 years old							
	/injured				er year when ha year when havir					
	leave			* As per the legal requirements						
Sho	Short hours Work									
			* Le	gally thre	e years old					
	Legal				Progressive meas	sures at Sh	in-Etsu C	hemical		

Number of Employees Who have Taken Childcare Leave

	Fiscal	2013	Fiscal	2014	Fiscal 2015	
	Male Female		Male	Female	Male	Female
Shin-Etsu Chemical Co., Ltd.	1	6	2	8	0	6
Consolidated companies in Japan	2	43	3	44	2	36
Consolidated companies total	6	80	56	86	44	73

<sup>\*</sup> The length of childcare leave differs from country to country, as the program is

#### Nursing care leave system

The Company has a nursing care leave system as shown in the chart below. The system enables employees to work in the Company while caring for elders.

The Nurcing Care Guidebook is issued in which all the necessary information on our nursing care system and care insurance is provided. Furthermore, we started "health care and nursing support" services in fiscal 2014 and provide counseling by external experts.

# Main system for the care system (Shin-Etsu Chemical)

	93 days		One year	
Care leave				
	* Legally 93 days			
Measures such as short-time work, etc. *				
	* Legally 93 days			
Time off for nursing care	Five days per year when having one person to be cared for 10 days per year when having two persons to be cared for			
	* As per the legal requirements			
* Flextime system,	measures to start/fi	nish early or late		

Legal Progressive measures at Shin-Etsu Chemical

Number of people obtaining nursing care leave

	Fiscal 2013	Fiscal 2014	Fiscal 2015
Consolidated companies in Japan	1	3	3

Respect for and protection of intellectual property

#### Accumulated holidays

**Welfare and Benefits** 

If a certain number of annual paid holidays granted in accordance with labor regulations have expired without being taken, a certain number of days can be treated as saved holidays. Employees may use these saved holidays for nursing care, for injury or illness, for volunteer work for regional disasters or for donating organs or bone marrow transplants.

#### Employee hot line

As a counseling service for trouble with work or other issues, we have set up Dial Shin-Etsu, which is staffed by external counselors who are specialists from outside of the Company. Consultations are received anonymously and treated with strict confidentiality, but if requested by the consulter, the counselor will contact the Personnel Department to discuss possible solutions.

#### Shinkansen commuting system

Since 1989, the Group has allowed commuting by Shinkansen at company expense. This system is promoting more employees to own houses. It also enables personnel who are reassigned to head office from plants and other business sites in Gunma and Fukushima prefectures to transfer to jobs in Tokyo without changing their lifestyles. As of March 2016, 72 employees use this system.

#### Other systems

The Dr. Kanagawa scholarship was established in June 2012 for employees to study at St. Clark State College in Washington, USA for one year. This scholarship was enabled due to the trusting relationship which was built over many years between the College and our Chairman, Mr. Kanagawa.

In addition, we have established asset-building schemes, an employee shareholding system, and a mutual aid society to provide support for weddings, childbirth, and sudden hospitalization of family members.

#### Welfare and benefits facilities

We have dormitories and company housing near the head office and plants for employees who live outside the commuting area.

We also have directly operated recreational facilities in Kanagawa, Shizuoka, Fukushima and Niigata prefectures. The Group's employees can use these facilities with family and friends. Furthermore, we have partnerships with external recreational facilities, and subsidies are given to the users.



Shin-Etsu Chemical Hakone Shinsensou (Kanagawa Prefecture

#### **Labor-management Relations**

The Company engages in various dialogues with the Shin-Etsu Chemical Labor Union to promote mutual understanding between labor and management. The Central Labor-Management Meeting is held once a month at the head office attended by top management. They engage in thorough discussions with labor union regarding subjects such as management policy, and outline information about individual businesses, and the personnel system. Also, each business site holds a monthly Local Labor Meeting with the local branch of the Shin-Etsu Chemical Labor Union.

Repeated dialogues and discussions between labor and management deepen mutual understanding and trust and facilitate the expansion of business operations in which staff and management can come together to carry out speedy responses to the changing business environment.

#### **Intellectual Property Management**

The Company has established the Basic Regulations for Intellectual Property which has set regulations regarding acquisition, management, and application of intellectual property. The Company's intellectual property is protected from infringement by third parties on the basis of these regulations. These regulations also require respect for the rights regarding all intellectual property of third parties.

Moreover, information in forms such as an annual report is disclosed to allow all persons involved with the Group to have a precise collection of the status of the Group's intellectual property assets.

In addition, employees who have devised useful inventions, improvements and devices in business have been awarded in systems such as the following.

Actual compensation awards

A system to recognize and award employees who greatly contributed to the company by creating an invention or idea which brings great profit to the company in the form of patents

Multiple inventor awards

A system to recognize employees who have made a large number of inventions and who have acquired a large number of patent rights in the Company

#### **Initiatives for Information Asset** Management

The Information Asset Management Basic Policy have been established to maintain the confidentiality<sup>1</sup>, integrity<sup>2</sup>, and availability<sup>3</sup> of information possessed by the Group. The information Asset Management

Regulations are set under the Information Asset Management Basic Policy to protect, utilize, control and manage information assets.

Furthermore, related rules and regulations such as Information Asset Management Standards set details concerning our customers, handling all the information concerning our customers, management, storage period and waste. In addition, we have formulated the Standards for Preventing Technology Leaks in order to prevent the outflow of technologies.

We also carry out training and implementation related to the Information Asset Management Department, regularly conduct checks on the status of compliance with the Information Asset Management Regulations and other regulations, and perform internal audits.

- 1 Confidentiality
  Information is to be protected from unauthorized users.
- Information is to be protected from falsification, deletion, destruction and loss.
- Ensure authorized users have access to information when needed.

#### **Protection of Personal Information**

In order to properly protect personal information in accordance with the Act on the Protection of Personal Information, we have established our Privacy Policy, which is available on our website.

Moreover, we have been providing education on law and regulations and holding lectures regarding personal information protection in trainings for different staff grades in order to ensure the appropriate handling and protection of personal information.

#### "Top 100 Global Innovators" awarded five years in a row

Shin-Etsu Chemical was selected as one of the "Top 100 Global Innovators" for five years in a row. It is a global intellectual property award given by Thomson Reuters. This award is to evaluate total ability on patents based on influence, success rate, global influence and number of patents held. The Company has consecutively won this award since its creation in 2011.



From the left Thomson Reuters Professiona Inc. Director Yoshiko Tanahashi, the Company's Senior Managing Director in charge of Patent Affairs Toshinobu Ishihara, the Company's Patent Director Jun Watanabe



**Key Issues** 

### **Contribution to industry and social initiatives**

#### Japan

# **Cooperation in the Great East Japan Earthquake Disaster Relief Marché**

The Disaster Relief Marché has been held in the Asahi Seimei Otemachi Building where the Company's head office is located every year since 2012 a year after the Great East Japan Earthquake occurred, and local specialty products from the three prefectures hit by the disaster are sold at the event so that disaster relief can be done in Tokyo. The Company and Shin-Etsu Handotai Co., Ltd. have also been in cooperation with the Marché management since the 1st event.

The 5th Marché was held in March 2016 and the venue was filled with many visitors.



#### Japan

# United Nations "World Refugee Day" fund-raising activities

Over the years, the Group has been conducting fundraising activities for "World Refugee Day" which takes place on June 20 and was set by the United Nations. Funds raised and matched by the Group in the form of donations are entrusted to the Japan Association for UNHCR where they are used to support refugees around the world, who continue to increase each year.

We have received a letter of appreciation from the Association every year for the Group's support.



http://www.shinetsu.co.jp/en/csr/csr\_society.html#contribution

#### Japan

# Demonstration for traffic safety for local children

In April and May 2015, Shin-Etsu Handotai Co., Ltd. Shirakawa plant employees stood near the plant entrance gate, and they demonstrated for traffic safety for local elementary school children going to school. This initiative was held in conjunction with the national traffic safety campaign in the spring of 2015. During the demonstration in April, pocket tissues with employees' handmade traffic safety leaflets were distributed.



#### Rwanda

# Donating Shin-Etsu Group products to the People in Republic of Rwanda

The Company has been supporting the NPO Millennium Promise Japan (MPJ). The MPJ took Japanese students to the Republic of Rwanda and gave them trainings there for about two weeks from February 2015. During thus visit to Rwanda, the Company donated PVC ecobags and PVC food wraps.

\* MPJ is working mainly for Africa on promoting poverty reduction, education, gender equality and self support.



#### Malaysia

#### Disaster-affected area support activities

A large number of people lost their jobs, homes and lives due to severe floods on the East Coast of Malaysia in December 2014 and a big earthquake that occurred in Borneo in June 2015. Fund-raising activities were done by employees of SEH Malaysia Sdn. Bhd. and SEH (Shah Aram) Sdn. Bhd. to support the victims of these disasters, and funds and daily necessities were delivered to the victims. In addition, we also delivered donated funds to the country's Ministry of International Trade and Industry and the Ministry of Energy, Water and Communications.



#### Thailand

# Participating in local safety education programs

In June 2015, Shin-Etsu Silicone (Thailand) Ltd. and Asia Silicones Monomer Limited. participated in a safety education program provided for local schools through AIE-CSR<sup>1</sup>. Both companies gave lessons with the theme of "how to use electricity safely" to children and taught basic knowledge on electricity, how to use electrical products safely and how to act in case of electric shocks.



1 AIE-CSR The CSR Working Group consists of 11 companies in the industrial park where both

#### Shintech Inc. Contribution to society activities

#### Rick Gros

#### Site Services Manager Shintech Louisiana, LLC

Since before startup of the first Shintech Louisiana plant in 2000, the company has been actively involved in organizations, sponsorships, leadership development, and civic activities that further the development and success of the communities in which we live and work.

Several Shintech employees and contractors returned to "Safety Town" for the ninth year in a row. "Safety Town" is a safety program designed for kindergartners to help educate them in the proper way to cross streets, ride bikes, handle emergencies (such as home fires) and other safety related issues.

Furthermore, for the past seven years, the employees of Shintech Louisiana, LLC, SE Tylose LA, LLC and many of the plant contractors have collected toys during the Christmas holidays to benefit Children's Hospital in Baton Rouge. A group representing Shintech and SE Tylose employees and contractors has made the annual delivery of toys to the hospital. The hospital playroom is a special place

for children to relax, socialize and enjoy an array of fun and educational activities. With Shintech and SE Tylose's help, the playroom is now stocked with enough games, toys, and electronic equipment for children of all ages to enjoy.

Community involvement is important to the long-term success of Shintech. It benefits the long-term well-being of our employees, our families, our friends and those who will both join us and succeed us as we continue to grow. As a recognized good neighbor, it is our privilege to be located in our community, and we work hard to support those around us.



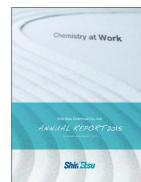
### Accurate and timely information disclosure and communication with stakeholders

#### **Information Disclosure**

The Group believes the appropriate and timely disclosure of company information promotes of stakeholder understanding of the Group, and also leads to proper evaluations of the market.

We therefore implement fair and transparent information disclosure by posting information on the Company's website and announcing it to stock exchanges and the news media. We also publish the Annual Report and other reports for shareholders.





Shin-Etsu Report (only Japanese available) Annual Report

#### **Dialogue with Stakeholders**

The Group, through a variety of methods and opportunities, is carrying out an active dialogue with stakeholders. We believe that this effort contributes to a sustainable growth of the Group and increases corporate value.

Major communication method and opportunity

#### **Shareholders and Investors**

General Shareholders' Meeting

Earnings presentations for analysts and institutional investors One-on-one meetings with analysts

Small meetings and conferences hosted by securities companies Information provided by the homepage, annual report, etc.

Day-to-day communications by sales representatives Information provided by the homepage, exhibitions, etc.

Day-to-day communications by the purchasing department

#### Local communities

Dialogue with bodies such as local governments Participation in local events

#### **Employees**

Dialogue and consultation with Labor Unions

Information provided by the company magazine and intranet





#### **Responsible Care Audit of the Report**



「信越化学CSRレポート2016」

#### 第三者検証 意見書

2016年6月1日

信越化学工業株式会社 代表取締役社長 森 俊三 殿

> 一般社団法人 日本化学工業協会 レスポンシブル・ケア検証センター長

> > 高瀬純治

#### ■検証の目的

本検証は、信越化学工業株式会社が作成した「信越化学 CSR レポート 2016」(以後、報告書と略す)に記載された下 記の事項について、レスポンシブル・ケア検証センターが化学業界の専門家の意見を表明することを目的としていま

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性
- 2) 数値以外の記載情報の正確性
- 3) レスポンシブル・ケア活動内容
- 4) 報告書の特徴

#### ■検証の手順

- ・本社において、各サイト(事業所、工場)から報告される数値の集計方法の合理性、及び数値以外の記載情報の正確 性について調査を行いました。調査は、報告書の内容について各業務責任者及び報告書作成責任者に質問する こと、並びに彼らより資料提示と説明を受けることにより行いました。
- ・直江津工場において、本社に報告する数値の算出方法の合理性、数値の正確性、及び数値以外の記載情報の正確 性の調査を行いました。調査は、各業務責任者及び報告書作成責任者に質問すること、資料提示・説明を受けるこ と、並びに現地での現物確認を含む証拠物件との照合により行いました。
- ・数値及び記載情報の調査についてはサンプリング手法を適用しました。

#### ■意見

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性について
- ・数値の算出・集計方法は、本社及び直江津工場において、合理的な方法を採用しています。
- ・調査した範囲において、パフォーマンスの数値は正確に算出・集計されています。
- 2) 数値以外の記載情報の正確性について
- ・報告書に記載された情報は、正確であることを確認しました。原案段階では表現の適切性あるいは用語の整合性 等に関し、若干問題があることを指摘しましたが、現報告書では修正されており、現在修正すべき重要な事項は 認められません。
- 3) レスポンシブル・ケア活動の評価について
- ・ヒヤリ・ハット事例を web 上で公開されている点を評価します。
- ・品質クレームやコンプレインに対し、48 時間以内の回答を徹底していること、品質問題の真の原因究明を行ってい ること等、品質管理に力を入れている点を評価します。
- ・直江津工場では、保安力評価システムの活用、非定常作業の総点検、シナリオなしの消防訓練の実施等、保安防 災活動に力を入れている点を評価します。また、地域の祭礼への参加・協賛もよく行われています。地域社会に 対するこういった工場の取り組みをもっと紹介されるとよいと思います。
- 4) 報告書の特徴について
- ・CSR 重要課題の洗い出しと決定のプロセスを丁寧に説明しています。決定した CSR 重要課題毎に、現状を簡潔に 纏めています。社外取締役の CSR に対する期待を掲載する等、貴社がガバナンスに力を入れていることが良く わかる内容になっています。表紙や構成も工夫されており、写真や図を多くしたうえ、文字数も少なく紙面に余裕 を持たせているので、一般読者にも読み易くなっています。

UI F

Membership Keidanren (Japan Business Federation) Japan Chemical Industry Association Vinyl Environmental Council

Plastic Waste Management Institute The International Friendship Exchange Council The Japan Committee for UNICEF

Global Compact Japan Network Millennium Promise Japan, etc.

As of March 31, 2016