Environmental and Social Report 2012

2012 Environmental and Social Report
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Your opinions, inquiries, and requests regarding this report are welcomed at our website:

URL: http://www.shinetsu.co.jp/e/profile/kankyo.shtml



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 advancement 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 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.

Global Compact Ten Principles

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.

The Global Compact asks that businesses should:

Principle 1: Support and respect the protection of internationally proclaimed human rights

Principle 2: Make sure they are not complicit in human rights abuses

Principle 3: Uphold the freedom of association and the effective recognition of the right to collective bargaining

Principle 4: Uphold the elimination of all forms of forced and compulsory labour

Principle 5: Uphold the effective abolition of child labour

Principle 6: Uphold the elimination of discrimination in respect of employment and occupation

Principle 7 : Support a precautionary approach to environmental challenges

Principle 8: Undertake initiatives to promote greater environmental responsibility

Principle 9: Encourage the development and diffusion of environmentally friendly technologies

Principle 10: Work against corruption in all its forms, including extortion and bribery



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

orporate Mission Statement, Basic CSR Policy and UNGC participation http://www.shinetsu.co.jp/e/profile/csr.shtml

Editorial Policy

The Environmental and Social Report provides information on

environmental, safety and quality control programs and CSR initiatives carried out by the Shin-Etsu Group. The Report also

describes Responsible Care programs¹ at the Shin-Etsu Group. The

Report has been compiled in accordance with the Environmental Accounting Guidelines 2005 and Environmental Reporting

Guidelines FY2007 released by the Ministry of the Environment,

The report covers Shin-Etsu Group. The range of entities from

which data were collected is in principle as stated below. Where

The report includes data from the 117 business bases of the Shin-Etsu Group (an increase of 19). Compared to the

coverage of the 2011 report, there is thus an expansion in

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 dialog and communication with society.

63 domestic manufacturing bases (increase of 13)

42 overseas manufacturing bases (increase of 8)

113 domestic non-manufacturing bases (increase of 20)

53 overseas non-manufacturing bases (increase of 16)

Japan, and the GRI Sustainability Reporting Guidelines.

Period Covered by the Report (indicated where otherwise)

Japan: April 1, 2011 to March 31, 2012

Overseas: January 1, 2011 to December 31, 2011 Organizations Covered by the Report

otherwise, this is indicated in a separate note

(1) Environmental Activity Report

scope and a difference in content.

(2) Environmental Accounting Shin-Etsu Chemical Co., Ltd.

1 Responsible Care program

(3) Social Contribution

Shin-Etsu Group

GRI Guidelines Comparison Table http://www.shinetsu.co.jp/e/profile/kankyo.shtml

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Shin-Etsu contributes to people's daily lives, as well as to the advance of industry and society by providing key materials and technologies



Chihiro Kanagawa

The Shin-Etsu Group's 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. Shin-Etsu's management places utmost priority on "safety", "the environment" and "fairness."

Measures taken to deal with natural disasters and business continuity

In 2011, natural disasters that caused enormous damage successively occurred, such as the Great East Japan Earthquake that occurred on March 11, and the largescale severe flooding that occurred in Thailand during the second half of 2011. With regard to the Shin-Etsu Group, in Japan, Shin-Etsu Chemical's Kashima Plant and Shin-Etsu Handotai's Shirakawa Plant were particularly affected by the Great East Japan Earthquake, and their operations concerning our main products of PVC (polyvinyl chloride) and silicon wafers were forced to shut down. In addition, as a result of the floods in Thailand, our local subsidiary's plant that is processing rare earth magnets was damaged and its operations had to be suspended. However, as a result of carrying out increased production at our alternative production bases, both in Japan and outside of Japan, we were able to fulfill our supply responsibilities to customers.

Moreover, as a result of the concerted efforts of staff members of the Shin-Etsu Group in carrying out the required restoration work, we were able to make a complete recovery in a short period of time. We wish to thank all the concerned parties for their warm support. The Shin-Etsu Group has many products that have strong dominant positions in the world market. We supply to our customers in a wide range of business fields, superior materials and products that were developed, by making use of our own unique technologies. We consider stable supply to our customers to be one of



Shunzo Mori President

our most important social missions. Over a period of many years we have already been dispersing our production bases around the world in anticipation of the possibility of the occurrence of unforeseen contingencies, and we have been making great efforts to establish a strong business foundation.

At the time of the Great East Japan Earthquake and Thailand flooding disasters, our foresight in establishing multiple global production bases and building a strong business foundation clearly showed the effectiveness of our management strategy and helped us to speedily implement countermeasures. Hence, we were able to keep the impacts of these disasters to a minimum.

In order to be prepared to effectively cope with unforeseen risks, in the future we will make use of the experience we have gained in expeditiously coping with the affects of these disasters. Going forward, we will always keep foremost in mind the most appropriate global locations to establish our production bases, and we will carry out measures to further implement our business continuity plan.

Measures we are taking to protect the environment

As part of our comprehensive efforts to contribute to improving the global environment, we are responding to the needs of society by carrying out intensive efforts to achieve reductions in the environmental impact, resource saving and energy saving in all phases of our business operations from products and manufacturing processes to manufacturing technologies.

Environmental conservation and reducing the environmental impact

We have consistently promoted the development and improvement of the Group's manufacturing technologies from a point-of-view that includes environmental performance by means of the activities of the Group's Horizontal Technology Committee, which was set up two decades ago.

Going forward, we will continue to put great effort into research and development aimed at improving such areas as high-level manufacturing technologies and the design of manufacturing facilities. We will make use of these results by applying them to make advances in environmental conservation and reducing the environmental impact.

Products and technologies that contribute to protecting the global environment

One of our Group's main products is PVC, and compared to other plastics, PVC is a product that depends less on the use of petroleum resources. PVC is contributing to energy saving in homes and buildings through such products as PVC window frames. Furthermore, other Shin-Etsu Group products such as semiconductor silicon, rare earth magnets and silicone encapsulating materials for LED products are contributing to energy saving in a wide diversity of fields.

In addition, we are proactively working on the development of materials and products that are essential for the practical commercial realization of such renewable energy sources as solar photovoltaic power generation and wind power generation, and in this way, we are contributing to the practical use of renewable energy.

Assuring "safety-first"

Among our key management objectives, we always place utmost priority on safety, and we make sure that all the company's officers and employees possess a strong sense of consciousness about safety.

In the manufacturing process, in order to eliminate latent risks at facilities before an incident occurs, we are continuously making strenuous efforts to implement the most appropriate design and improvements of our facilities. At the same time, we constantly review our operation manuals to determine how we can improve safety and then proceed to implement further improvements. In addition, we investigate "closecall" cases on a regular basis and disclose on our company's website the incidents and the safety improvement steps that were implemented to resolve the issues.

By promoting the safety measures we are taking on a daily basis, we are nurturing our Group's corporate culture and consciousness about the importance of safety measures.

Practicing fair and transparent management

The Shin-Etsu Group has strict internal control and auditing systems. We carry out fair business practices in our daily business activities and through proactive information disclosure we assure transparency with regard to our management.

In addition, with regard to corporate governance, by appointing people who are among the foremost figures in their respective fields and who possess deep insight and a wealth of business experience and knowledge as external directors and external auditors, we benefit from receiving their broad insights and advice. These external directors

and auditors monitor and supervise the execution of management from an independent standpoint.

Furthermore, we set up the Auditing Department as an independent organization and have implemented a highly objective auditing system for stricter internal controls and supervision. We have established a basic internal control policy that includes procedures to strictly meet the requirements of the Reporting System on Internal Control Over Financial Reporting stipulated in the Japanese Financial Instruments and Exchange Act (which is similar to the U.S. Sarbanes-Oxlev Act).

Participation in the UN Global Compact

The Shin-Etsu Group became a participant in the Untied Nations Global Compact (UNGC) in November 2010. The UNGC aims to promote better global citizenship by the world's leading businesses and organizations that are committed to voluntarily supporting and practicing in their business operations and strategies ten universally accepted principles with regard to the four areas of human rights, labour, environment and anti-corruption. These principles are in line with the mission and basic management policies of the Shin-Etsu Group, and in our CSR (corporate social responsibility) activities the Group has consistently worked towards the fulfillment of these principles. By joining the UNGC, we are working to further promote fair business practices that comply with the Ten Principles of the UNGC, as we strive to enhance our company's CSR activities and further make clearly and widely known to the world our Group's fundamental CSR standpoint. We are also working to improve the awareness of these principles among all of our employees.

Aiming to be a Group that is trusted all over the world

The Shin-Etsu Group carries out many different kinds of social contribution activities around the world, such as those by Shintech in the U.S., which is participating in the activities of United Way of America, a representative nonprofit charitable organization that focuses on identifying and resolving pressing issues in the community. Through these types of activities we are endeavoring to build trusting relationships with the local communities in which we operate around the world.

The Shin-Etsu Group will proactively carry out our corporate social responsibilities by sincerely dealing with the various important future issues in society, by fulfilling its responsibilities as a good corporate citizen and by growing together with society.

We sincerely request your further understanding and

June 2012

Chihiro Kanagawa, Ph. D.

C. Kanagawa

Shunzo Mori President

Overview of the Shin-Etsu Group

We aim to become an enterprise group that is trusted by society. To this end, we strive to achieve world-leading standards of technology, quality and cost-competitiveness and engage actively in CSR initiatives

As of March 31, 2012, the Shin-Etsu Group comprises Shin-Etsu Chemical and 133 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 fields: 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 strong market share, with the world's top share in polyvinyl chloride (PVC), semiconductor silicons, photomask substrates for LCDs and rare earth magnets for hard disk drives, and the top domestic share for silicones.

Shin-Etsu products are a familiar part of our everyday lives. Indeed, the Shin-Etsu Group plays an essential role in the modern advanced information society.

Product Information

Guide to Materials

Semiconductor Materials

As an all-round supplier of semiconductor-related materials, we provide a diverse range of items such as semiconductor silicon



that are indispensable to the manufacture of semiconductors. We also

deal in the synthetic quartz photomask substrates, gases, chemicals and jigs used in their manufacture.

Environmentally Friendly Materials

Automobile-related Materials

automotive technology in

areas such as improved

safety and reliability.

miniaturization and

environmental

responsiveness.

reduced weight, and

Polyvinyl chloride, silicones, rare earth magnets, synthetic pheromones and other Shin-Etsu Group products contribute to

resource and energy saving, and reducing environmental impact.

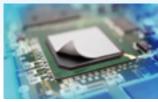


With their wide variety of characteristics, Shin-Etsu Group

products are expected to provide the key to the evolution of

Electronic Materials

Through a wide range of products including silicones, rare earth magnets and liquid fluoroelastomers, we contribute to the

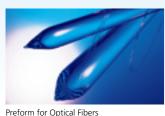


improved performance, function and reliability of such devices as electrical home appliances, communication equipment and computers.

Heat-Dissipating Silicone Rubber

Optical Materials

Using both natural and synthetic guartz as a base, we develop a diversified range of optical materials, including preform for



optical fibers and assorted optical parts. We supply a wide range of items, from raw materials to processed products.

Architectural/Civil Engineering Materials

We respond to a wide range of needs in the architecture and civil engineering fields by providing such building/civil engineering

items as sealing materials. coating materials and admixtures for building



Silicone Sealant

Corporate Overview

Overview of Operations

Trading name Shin-Etsu Chemical Co., Ltd.

Location 6-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan

Established September 16, 1926 Capital 119,419 million yen Shunzo Mori, President Representative

16,167 (consolidated) 2,695 (non-consolidated) Number of employees

Manufacture and sales of polyvinyl chloride, semiconductor silicons, Business activities

silicones, rare earth magnets, synthetic quartz, cellulose derivatives

Principal Shin-Etsu Group Companies

Japanese Domestic Group

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

Overseas Group

Shintech Inc., Shin-Etsu Handotai America Inc., S.E.H. Malaysia SDN. BHD., Shin-Etsu PVC B.V., SE Tylose GmbH & Co. KG, Shin-Etsu Handotai Europe Ltd., Shin-Etsu Handotai Taiwan Co., Ltd., and others

Rating: Aa3 long-term debt rating received from Moody's Investors Services

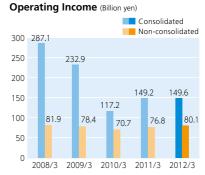


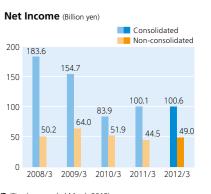
Full details of Shin-Etsu Group companies

http://www.shinetsu.co.jp/e/profile/group.shtml

Financial Highlights







Number of employees (Persons)

2,590 2,609

20.000

15.000

10 000

Consolidated Non-consolidated

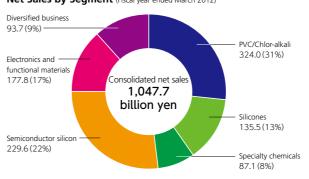
2,647

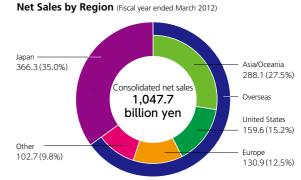
2008/3 2009/3 2010/3 2011/3 2012/3

16,955 16,302 16,167

2,656

Net Sales by Segment (Fiscal year ended March 2012)





nancial and IR information http://www.shinetsu.co.jp/e/ir/

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Towards the Realization of a Platinum Society

With a central focus on materials, technologies and products, the Shin-Etsu Group is striving towards realizing the concept of a "Platinum Society."

Definition of "Platinum Society"

The term "Platinum Society" was coined in a book written by an external director of Shin-Etsu Chemical, Hiroshi Komiyama, in 2011 to describe a future society which is sustainable and has hope. In a Platinum Society various problems in areas such as the environment, population aging, lack of demand and employment will be resolved and efforts are made to realize a society in which all people can enjoy full lives.



The term "Platinum" encompasses the following fields:

- Green (Environment, resources and energy fields)
- Silver (Aging society fields)
- Gold (New technologies fields including IT)

The term also indicates that while embracing shining innovations in the fields listed above, a Platinum Society strives for a dignified lifestyle of a higher rank.

Necessary Conditions for a Platinum Society

- 1 A society able to harmonize and coexist with the environment. A society free from worries about resources or energy, with a beautiful and abundant natural environment.
- **2** A society with active senior citizens. A society in which senior citizens can participate with pride.
- 3 A society in which people can continue to grow over the entire course of their lives.
- 4 society which creates new employment opportunities through technological innovation.

From a Developed Nation Facing Problems to a Developed Nation Solving Problems: The Road Japan Should Now Follow

Living in a developed nation in the twentieth century, we were blessed to live a life not lacking in respect to food, clothing, shelter, mobility and information. As we enter the twenty-first century, people living in nations we refer to as developing will also be quantitatively fulfilled in these regards.

Once humans have these needs quantitatively met, what do they require? What kind of society are we trying to build? There are aspects we cannot yet understand, but I believe the answers to those questions lie in the Platinum Society. A Platinum Society is a society which is realized through innovations in the three fields, green, silver and gold.

Japan is facing many problems now, however, the problems Japan is tackling will be the problems faced by many countries in the future. Japan can be thought of as a developed nation facing problems. Through leading the world in resolving these problems, realizing a Platinum

Society and becoming a developed nation which solves problems, I believe Japan can make remarkable advances to once again become a nation which leads the world.



Hiroshi Komiyama External Director, Shin-Etsu Chemical (Former President, The University of Tokyo and Chairman, Mitsubishi Research Institute, Inc.)

http://www.platinum-network.jp/ (Japanese only)

Innovations in the Three Fields of Green, Silver and Gold and The Shin-Etsu Group's Contributions

Green = Environment, Resources and Energy Field

(1) Improve Japan's energy self-sufficiency rate to 70% by 2050 through developments in renewable, natural energies (solar, wind, geothermal, hydraulic and biomass) and improvements in energy efficiency.

Contributions by the Shin-Etsu Group

Rare Earth Magnets

Through application in wind turbine motors, rare earth magnets contribute to energy saving.



PVC windows have excellent thermal insulating properties, which contributes to energy saving in addition to reducing carbon dioxide emissions.



(2) Improve Japan's self-sufficiency rate for mineral resources to 70% by 2050 by promoting recycling.

Contributions by the Shin-Etsu Group

Rare Earth Magnets

We are expediting rare earth metal self-sufficiency through the establishment of a recycling system.

(3) Improve Japan's food self-sufficiency rate to 70% and timber self-sufficiency rate to 100% by 2050.

Contributions by the Shin-Etsu Group

Synthetic Pheromones

We are promoting low-pesticide food and wood supply through the application of synthetic pheromones in harmful insect control.



Silver = Aging Society Fields

(1) Creating a society in which senior citizens can continue to participate with pride, through anti-aging innovations.

Contributions by the Shin-Etsu Group

Cellulose Derivatives

We are contributing to the medical field by developing products suitable for pharmaceuticals which utilize the functions of this material.



(2) Using robots and other means, provide support to senior citizens who are troubled by going up and down stairs or carrying heavy items due to decreased physical strength.

Contributions by the Shin-Etsu Group

Rare Earth Magnets

Smaller and lighter robots can be realized through the use of rare earth magnets in the motors of robotic joints for nursing care and support robots.

Silicones are used as a cushioning material in nursing care and support robots. Semiconductor Silicon

Semiconductor silicon is used in electronic devices for nursing care and support robots.



Gold = New Technologies Field Including IT

We are contributing to the development of advanced new technologies.

The Potential of the Shin-Etsu Group

Encapsulation Technology for 3D Stacked Package

As IT technology advances, semiconductor device makers have been developing the large capacity memory and high performance chip. Today, however, the device and circuitry integration using the design rule shrinkage may be reaching some limitations so that the device makers require new technologies for further large integration. Three-dimensional (3D) stacked package is another alternative to response to the customer's demand and Shin-Etsu group has been advancing the development of the encapsulation and lithography¹ technologies for 3D stacked package.

Polyvinyl chloride, which contributes to the prevention of global warming, is one example of such a product.

What is polyvinyl chloride?

Polyvinyl chloride (PVC) is a general-purpose resin with a low dependence on petroleum as it is made from 60% salt, which is abundant on Earth, and 40% petroleum (weight for weight). The characteristics of PVC include a low environmental impact, excellent durability and it can be easily recycled.



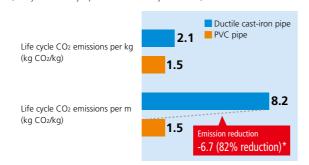
Reducing Environmental Impact Through PVC

PVC is a material with a low environmental impact. It uses only about 60% of the energy required by other resins during manufacture. Furthermore, the life cycle carbon dioxide emissions¹ of PVC are lower than emissions for other materials such as metals and glass. For example if you compare PVC pipes and ductile cast-iron pipes2, both of which are widely used for water and sewerage pipes, the life cycle carbon dioxide emissions of the PVC pipe are less than one-fifth the emissions for the ductile cast-iron pipe. If the ductile cast-iron pipes were replaced with PVC pipes, it would be possible to reduce carbon dioxide emissions by as much as 82%.

- 1 Life cycle carbon dioxide emissions Total carbon dioxide emissions for a product from procuring raw materials through to the processes of manufacture, use, disposal and recycling.
- 2 Ductile cast-iron pipes A pipe made from spheroidized graphite and iron.

Comparison of Life Cycle Carbon Dioxide Emissions for PVC Pipes and **Ductile Cast-Iron Pipes**

(survey conducted by Japan Chemical Industry Association)



* Reduction calculated for the necessary weight and lifespan per 1m length of 150mm wide pipe.(Weight: 6.7kg for PVC pipe, 23.8kg for ductile cast-iron pipe; Lifespan: 50 years for PVC pipe, 45 years for ductile cast-iron pipe)

houses. Since 2006, Japan's Ministry of the Environment has

taken the initiative ahead of other ministries in the installation

of PVC windows in government buildings and minister's

offices and The University of Tokyo is also proceeding with

windows, it is possible to reduce the amount of carbon dioxide

accompanying heat production by an amount equivalent to

65 times the life cycle carbon dioxide emission of PVC.

Through the thermal insulation effect of PVC used in PVC

the installation of PVC windows in its buildings.

PVC Windows Which Promise a Comfortable Lifestyle and Energy Saving

PVC windows have excellent thermal and sound insulating properties, heat shield and are airtight. Compared to an aluminum window with a single pane of glass, PVC provides a 71% reduction in heat loss and there is a large reduction in the amount of noise traveling. Additionally, the formation of condensation is greatly reduced. In China and developed countries in Europe and America, the use of PVC windows is rapidly expanding for the sake of energy saving and also in Japan the rate of use in cold areas is 97.1% for detached

Image provided by LIXIL Corporation

Life cycle CO2 emissions of PVC windows and contribution to CO2 Reductions

(Shin-Etsu Group data)

Life cycle CO₂ emissions 12 (kg CO₂/PVC window) Reduction of life cycle CO2 emissions due to PVC thermal insulation effect

780(B)

(kg CO₂/PVC window) * One window uses approximately 8kg of PVC.

an Chemical Industry Association http://www.nikkakyo.org/



Window frame and glass respectively: heat lost from a window

(Double-sliding window: 169cm width x 137cm height)



0 50 100 150 200 250 300 350 400 * Data from Sakamoto Laboratory, Department of

Architecture, Faculty of Engineering, The University

Source: "Enjoying Life with PVC Windows" Vinvl Environmental Council website

TOPICS

Efforts of Overseas Shin-Etsu Group Companies

In addition to enhancing production capacity of silicon metal, which is the principal raw material of the Shin-Etsu Group's main products, Simcoa Operations is also making positive efforts for waste utilization.

A Twofold Increase in Silicon Metal Production Capacity

In Australia, Simcoa Operations (Simcoa) has formulated a plan to boost production capacity of silicon metal and is currently proceeding with the expansion project.

Silicon metal is used as the principal raw material of a wide range of the Shin-Etsu Group's main products such as semiconductor silicon, silicones and synthetic guartz products. It is also used as the principal raw material for solar cells which are growing in popularity worldwide and demand for silicon metal is expected to continue to be firm.

Shin-Etsu Chemical acquired Simcoa in 1996. Prior to the acquisition, Simcoa had been experiencing financial difficulties, however as a result of the implementation of management reforms, from the first year of its operations after the acquisition Simcoa returned to profitability. In the following 16 years, Simcoa has continued to be profitable. Simcoa is also contributing to the development of the local

community through expanded employment opportunities with the expansion of the company.



Corporate Overview

Company Name: Simcoa Operations Pty. Ltd. Location: Western Australia, Australia Business Activities: Manufacture and sale of silicon metal

Simcoa's Waste Utilization

As an environmental initiative, Simcoa is committed to waste utilization. The waste utilization not only reduces environmental impact but also results in waste materials becoming a valuable resource by treating them as a by-product, and as such, the company is positively working towards reuse.

Charcoal is one example of a way in which waste materials are urilized. Wood from forest clearing for a bauxite mining operation is processed to produce charcoal. Previously, all the wood from the forest clearing operations was burnt, however, in 2004 the company began producing charcoal with the goal of effectively using the resource as a by-product.

Currently, Simcoa uses 100,000 tons of wood to produce 25,000 tons of charcoal each year. The source for the wood is felled trees from the bauxite mining operation, plantation wood, waste from sawmill and so on. No native forest trees are cut down to supply us with wood for charcoal.

Other examples of waste utilization in addition to charcoal are listed below. We hope these example initiatives help to demonstrate our commitment to the environment and waste

Jim Brosnan

Simcoa Operations



Examples of Simcoa's Waste Utilization

Examples of Sin	read Finance Chinzarion
Silica fume	Amorphous silica fume is a by-product of silicon metal. Initially when Simcoa began operations, there was no market for silica fume and the waste had to be buried in an on-site landfill. Simcoa developed a market in Australia for silica fume as an additive to increase the strength of cement, and has sold all of its silica fume for the past 20 years.
Charcoal fines	Fine charcoal is screened off from the lump charcoal because it cannot be used in the silicon metal furnaces and is sold for the production of barbecue briquettes.
Dross	A certain amount of slag¹ is generated as a by-product during the manufacturing process of silicon metal. Slag is treated as a waste product by most silicon smelters, however, Simcoa sells this slag as a resource for producers of silicon manganese.
Sawdust and wood mulch	Sawdust and wood mulch are generated during cutting timber. It is sold for use in soil improvement. Investigations are underway into the potential use of this by-product for biomass energy generation in the future.
Undersized guaitz	As some of the quartz rock recovered from the quartz mine is too small for use in the silicon metal furnaces, it is sold as flux materials for use in metallurgical operations and as decorative stone for use with concrete.

utilization

Slag is a waste produced when molten metal is separated into fractions during metal smelting



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CSR Promotion Structure/ **Environmental Management Promotion Structure**

Returning to the basic principles of corporate social responsibility, we promote CSR activities with a new outlook

CSR Promotion Structure

The mission of the Shin-Etsu Group is "strictly to comply with all laws and regulations, to conduct fair business practices and to contribute to people's daily lives as well as to the advance of society and industry by providing key materials and technologies". We believe we have a social responsibility to contribute to our many stakeholders. including all of our shareholders and investors, customers. business partners, local communities and employees, by realizing this mission.

To achieve this, we formulated our Basic CSR Policy as a detailed policy and this forms the basis for internal regulations and various activities which are taking place. In order to promote the Basic CSR Policy 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 an officer responsible for CSR.

In 2006, The Group expressed its commitment to supporting and implementing for the International Council of Chemical Associations' Responsible Care Global Charter. Furthermore, we joined the United Nations Global Compact in November 2010. The Shin-Etsu Group promotes business activities which align with these principles and endeavors to maintain the trust and respect of all.

Environmental Management Promotion Structure

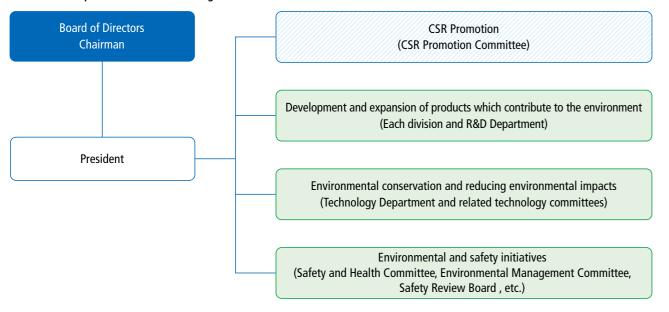
The Shin-Etsu Group incorporates environmental considerations into all aspects of corporate activity, with the aim of helping to prevent global warming and working towards the establishment of a sustainable society.

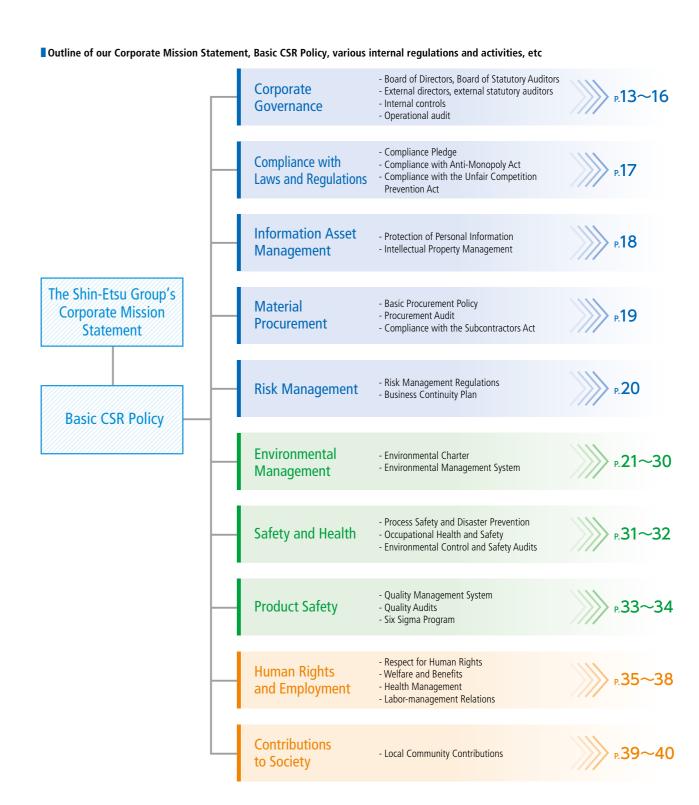
We are striving to reduce greenhouse gases and other environmental impacts associated with production processes by setting out ambitious targets and working towards clean production processes through structured and continuous programs. As a key materials manufacturer, we are highly committed to the development and expansion of products and technologies designed to reduce environmental impact as a means of contributing to the conservation of the global environment.

These activities carry over the three areas of research, manufacture and sales. Committees which span the areas have been organized and the activities come under the supervision of the officer responsible for technologies.

Furthermore, we are working at responding appropriately to all environmental regulations and standards in our product development and manufacture. The officer responsible for environmental control and safety has overall company responsibility for this area and is dedicated to earning our customers' trust.

Shin-Etsu Group CSR/Environmental Management Promotion Structure and Associated Activities





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Corporate Governance

The enhancement of corporate governance is one of our most important management tasks

Basic Principles of Corporate Governance

Shin-Etsu Chemical has a fundamental management policy of continually enhancing corporate value and thereby meeting the expectations of shareholders. To this end, the Company has instituted an efficient structural framework and systems designed to enable a more flexible response to changes in the business environment. Shin-Etsu Chemical is proactively committed to accurate and timely information disclosure to shareholders and investors as a means of enhancing management transparency and strengthening the integrity of audit systems.

These systems represent our company's fundamental idea on corporate governance and are given one of the highest priorities in respect to management.

Board of Directors, Managing Directors' Meeting and Board of Statutory Auditors

Shin-Etsu Chemical has adopted a statutory auditor system. The Board of Directors consists of 22 members, of whom five are external directors with extensive management experience and a high level of expertise. The Board of Statutory Auditors consists of five members, of whom three are external auditors with a high degree of independence.

Two organizations discuss and decide on the execution of operations: the Board of Directors and the Managing Directors' Meeting, which are held on a monthly basis as a general rule.

The Board of Directors sets out the fundamental policies of the Company and deliberates and makes decisions regarding key aspects of Company operations in accordance with the Companies Act and the Shin-Etsu articles of

incorporation. Meanwhile, the Managing Directors' Meeting makes deliberations and decisions regarding a variety of other operational issues.

As well as attending the Board of Directors meetings, Managing Directors' Meetings and other important internal meetings, the statutory auditors inspect important documents and carry out other checks in order to audit the execution of operations by the directors. The statutory auditors also hold monthly meetings with the Auditing Department where they receive progress reports on all activities and internal auditing results, provide advice and recommendations on corporate activities and selection of key auditing topics and request investigation when necessary.

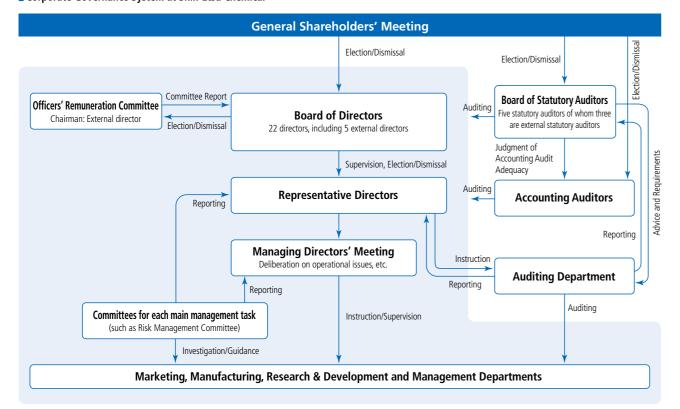
External Directors and External Statutory Auditors

In order to bring about enhanced advisory and supervisory functions based on an independent perspective, Shin-Etsu Chemical engages the external directors and statutory auditors listed below.

Since their appointment, the external directors have not only provided adequate supervision from an independent perspective, but have also provided advice across the full range of management operations based on their broad perspectives. The external statutory auditors bring to the audits high levels of specialist knowledge and broad experience, which contributes to maintain our company's legal compliance system.

External directors and statutory auditors have a high degree of independence and are not former employees of our parent company, subsidiaries, major shareholders or major business partners.

Corporate Governance System at Shin-Etsu Chemical



As of June 28, 2012

List of external directors and external statutory auditors

Position	Name	Significant other positions held
External directors	Frank Peter Popoff	Former CEO, The Dow Chemical Company (US)
	Masashi Kaneko	Former Director and Chairman of the Executive Board, former Nikko Cordial Corporation Director and Chairman of the Board, Ikyu Corporation
	Tsuyoshi Miyazaki	Former Representative Director (currently Advisor), Mitsubishi Logistics Corporation
	Toshihiko Fukui	Former Governor, Bank of Japan External Director, Kikkoman Corporation President, The Canon Institute for Global Studies
	Hiroshi Komiyama	Former President, The University of Tokyo Chairman, Mitsubishi Research Institute, Inc. External Director, JX Holdings, Inc.
External statutory auditors	Taku Fukui	Lawyer Managing Partner, Kashiwagi Sogo Law Offices
	Yoshihito Kosaka	Certified Public Accountant, Certified Public Tax Accountant Partner, Grant Thornton Taiyo ASG Representative Partner, HIYU Certified Tax Accountants' Corporation
	Kiyoshi Nagano	Former Representative Director, Chairman and President, former JASDAQ Securities Exchange, Inc. External Director, SBI Holdings, Inc. External Auditor, LEC, INC.

As of June 28, 2012

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Independence

The external directors and external statutory auditors all meet the stock exchange criteria for independent directors¹, as which the following four are registered: Toshihiko Fukui, Hiroshi Komiyama, Masashi Kaneko and Tsuyoshi Miyazaki. These four directors also serve on the Independent Committee, an organization set up to ensure the fairness of decisions by the Board of Directors regarding The Handling Policy (Anti-takeover Defensive Plan) toward a Large-scale Purchase of the Company's Shares and Other Securities and to exclude any arbitrary decisions.

Support system

Support services for the external directors and external statutory auditors are provided by staff from the relevant

When a meeting of the Board of Directors or other important internal meeting is to be held, external directors are informed in advance of the agenda and provided with an explanation of the content, in response to which they express opinions as appropriate.

External directors and external statutory auditors who have been unable to attend a Board of Directors meeting receive a report on the proceedings, for instance in the form of a copy of the minutes.

1 Independent directors

External directors and external statutory auditors who present no risk of a conflict of interest with general shareholders. The Tokyo Stock Exchange and other stock exchanges require listed companies to appoint such directors.

Directors' Remuneration

The Officers' Remuneration Committee, chaired by external director Frank Peter Popoff with three other directors as committee members, meets regularly twice a year and otherwise as necessary to review and assess directors' remuneration and make recommendations to the Board of Directors in accordance with the Regulations of the Officers' Remuneration Committee.

Shin-Etsu Chemical discloses the total amount of directors' remuneration in annual securities reports and business report. In cases where the total amount of remuneration for one officer exceeds 100 million yen, individual disclosure in annual securities report is made.

Internal Control System and Operational Audit

Shin-Etsu Chemical 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 that other duties are performed appropriately", as stipulated in Article 362, Paragraph 4, Item 6 of the Companies Act.

The establishment, implementation and maintenance of an internal control system is recognized as an important management responsibility at Shin-Etsu Chemical. Accordingly, the internal control system is structured and implemented in accordance with the above policy and 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 managers, external directors and statutory auditors, and other relevant personnel to strengthen coordination between internal audit departments and external directors and statutory auditors.

Internal Control Reporting System

With respect to the Internal Control Report System for Financial Reporting applicable since the fiscal year ended March 2009 under the Financial Instruments and Exchange Act, the Company fully recognizes the importance of maintaining the reliability and transparency of the Company's financial reporting. The Company's Internal Control Promotion Team takes a leading role in implementing the internal control system.

Risk Management Committee

The Risk Management Committee, which is chaired by a managing director, is responsible for designing risk management structures and associated rules and regulations and working to identify and prevent potential risks arising in connection with the operations of the Company. The Risk Management Committee also promotes broad-based programs in the risk management area such as providing information and training. The Committee reports directly to the Board of Directors, the Board of Statutory Auditors and the Managing Directors' Meeting on major issues. In this way, the Risk Management Committee works to ensure appropriate risk management.

Management of Group Companies

In the spirit of respect for the autonomy of Group companies. the Shin-Etsu Group works for their growth and development

so as to promote mutual benefit in the interest of the business prosperity of the Group as a whole.

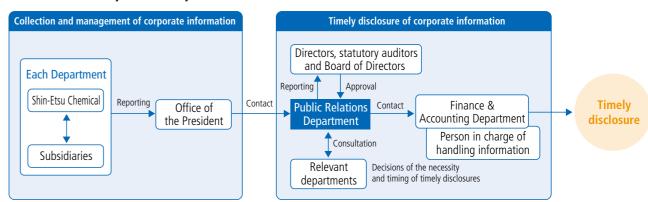
Group companies are managed on the basis of the Shin-Etsu Chemical Group Company Operational Regulations. Companies with strong ties to Shin-Etsu Chemical in terms of capital, personnel, or materials undertake prior consultation and submit reports to the parent company with respect to important items such as capital increase or decrease, merger, liquidation, amendment of articles of incorporation, proposal of finanacial statements and budgets, planning of new businesses or facilities, and business performance and business results.

Furthermore, by holding meetings which are attended by the presidents of our main Group companies three times each year, we actively promote 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, Shin-Etsu Chemical has formulated internal regulations regarding grasp of corporate information, management and timely disclosure. These regulations include the Regulations on Timely Disclosure of Corporate Information and the Rules on Regulation of Insider Trading, which are communicated to all Shin-Etsu Chemical departments and Group companies to promote smooth operations.

State of the internal system for timely disclosure



Company and employees work together to ensure compliance with laws and regulations

The Shin-Etsu Group regards compliance with laws and regulations as an obligation of corporate activities. Compliance is incorporated into the Corporate Mission Statement and the periodical management objectives as a means of working to ensure compliance.

Ensuring Full Compliance Awareness

In the event of promulgation of or amendments to legislation pertaining to corporate activities, the Legal Department issues internal bulletins and holds presentations as appropriate. To raise awareness of legal compliance, internal bulletins are issued to flag issues up in the event a violation of laws or regulations occurs at another company.

Compliance Pledge

Directors, statutory auditors and employees make a Compliance Pledge to the company which represents their commitment as individuals to practice compliance in their daily work. For the eventuality of inappropriate action occurring, disciplinary measures are available.

Compliance Consultation Office

To support each Shin-Etsu Group employee in ensuring that their work activities comply at all times with relevant laws and regulations as well as internal rules, we have set up a Compliance Consultation Office , which is available whenever required to provide consultation or accept notifications.

In accordance with the Compliance Consultation and Notification Regulations, the Compliance Consultation Office maintains strict confidentiality to ensure that no employee consulting the office suffers disadvantage. The office then carries out investigations in response to the information received and takes corrective action where necessary. No employee suffers any form of disadvantage on the grounds of having made a consultation or notification.

Initiatives Aimed at Preventing Corruption

Through its Corporate Mission Statement and Basic CSR Policy, the Shin-Etsu Group declares that it will carry out law-abiding, fair and transparent corporate activities. By having directors, statutory auditors and employees make a Compliance Pledge, we assuredly prevent unfair benefits or unfair demands in respect to our customers and business partners. In addition to the semiannually monitoring of each department concerning the status of compliance with ethical standards including those bribery prevention, regular internal audits for corruption, embezzlement and bribery are carried out.

Cutting Ties with Anti-social Forces

The Shin-Etsu Group declares in its 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 anti-social forces. In accordance with this policy, we will endeavour to develop internal systems under the leadership of rhe department in charge of managing these issues. Working closely with external organizations addressing these issues, we will strongly push forward initiatives aimed at eradicating anti-social forces.

Export Control

The Security Export Control Committee at Shin-Etsu Chemical provides an export control structure designed to ensure proper standards of international peace and safety in relation to exporting, supply and associated agency transactions of goods and technology in categories subject to regulation under export-related legislation such as the Foreign Exchange and Foreign Trade Act.

The Internal Control Program on Security Export Control has been established to classify categories of goods requiring export clearance and implement screening procedures for customers and transactions. The Company also conducts internal audits and provides training and guidance for officers and employees as well as instruction to Group companies.

Information Asset Management

The Shin-Etsu Group recognizes the importance of information assets and uses the information with appropriate management

Basic Policy on Information Asset Management

Effective utilization of information assets is important for daily business operations and smooth communication. However, this increases the chance of information leaks and other issues occurring as a result of inappropriate management of information assets and can be held responsible for the company's management. Information assets must be protected against various dishonest acts and threats and in the event of a compromising situation, any effect on other companies and expansion must be prevented.

Given these considerations, the Shin-Etsu Group has set its Basic Policy on Information Asset Management to ensure the confidentiality¹, integrity² and availability³ of its information assets.

- 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

Initiatives for Information Asset Management

Regulations concerning the protection, utilization, management and application of the Group's information assets are established in the Information Asset Management Regulations, which is set out in the Basic Policy on Information Asset Management.

Details concerning issues such as the handling of all information regarding customers and business partners, and information management, retention periods and deletion are set out in subordinate regulations, the Information Asset Management Standards and the Trade Secrets Management Standards. In order to prevent unintentional leaks of technologies due to business development into regions with weak protections for intellectual property rights, we have formulated the Standards for Preventing Technology Leaks.

The Information Asset Management Department and the Auditing Department regularly conduct checks and followup checks of the status of compliance with Information Asset Management Regulations and other regulations.

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 a personal information protection policy, which is available on our website (Japanese only).

Moreover, the Group is making exhaustive efforts in the appropriate handling and protection of the personal information of customers, business partners and other contacts through measures such holding explanatory meetings within the Group on compliance with all relevant laws and lectures regarding personal information protection during stratified training sessions.

Initiatives Concerning Intellectual Property

In order to accomplish strategic business management centered on intellectual property, the Shin-Etsu Group has established Basic Regulations for Intellectual Property which sets out regulations regarding acquisition, management and application of intellectual property. In addition to protecting the Group's intellectual property from violation by third parties, 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 stakeholders¹ including investors to have a precise grasp of the status of the Group's intellectual property assets.

1 Stakeholder

Persons or businesses with a direct or indirect interest in a company's business

Material Procurement

The Shin-Etsu Group is committed to fair and equitable procurement practices and to incorporating environmental considerations into the supply chain

Basic Procurement Policy

A Basic Procurement Policy has been formulated for the purchasing of supplies needed for production activities, including raw materials, secondary materials such as transportation packaging, and machinery and equipment. The Basic Procurement Policy, which governs all procurement activities by the Company, is communicated to all personnel and posted on the website.

Compliance with the Subcontractors Act

To ensure full compliance with the Subcontractors Act (actual title: The Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors), the Shin-Etsu Group maintains close lines of communication with its business partners in order to avoid any abuse of the Company's position of superiority relative to subcontractors. For all business partners subject to the provisions of the Subcontractors Act, the Shin-Etsu Group makes periodical checks in combination with reporting of new transactions to ensure full compliance. Staffs in charge of purchasing and procurement frequently attend external seminars and presentations as well as internal training sessions to discuss specific examples of conduct. In this way, the Company works to boost awareness of compliance with the Subcontractors Act.

In addition, the Company requests that raw material suppliers to comply thoroughly with the Subcontractors Act.

Procurement Audit

Suppliers are expected to understand the Basic Procurement Policy and asked to incorporate the contents of the Policy into their supply contracts.

Before and after supply begins, the supplier is asked to complete a procurement audit checklist, the results of which are used for evaluation and assessment. Additionally, we visit suppliers in Japan and overseas whenever necessary to carry out audit.

Business Continuity Initiatives

The Shin-Etsu Group has formulated a Business Continuity Plan and is prepared for contingencies. We would like suppliers 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 Shin-Etsu Group checks the ISO14001 status of suppliers and considers preferential business transactions with suppliers that have ISO certification so as to purchase materials of lower environmental burden.

When contracting specifications on supply of raw materials, we investigate the supplier's use in products and packaging of chemical substances with high environmental impact, their environmental management systems, their handling of prohibited substances as stipulated in the RoHS directive¹, and their Green Partner certification status.

The Shin-Etsu Group is also committed to compliance with REACH² registration requirements by working with production and sales departments to obtain confirmation from raw material suppliers of the REACH registration status of raw materials. In this way, we are building an environment-friendly supply chain with our business partners.

- An EU directive, formally known as the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations
- An EU regulation on Registration, Evaluation, Authorization and Restriction of

Risk Management

The Group assesses potential risks and is prepared for contingencies

Risk Management Regulations

Shin-Etsu Chemical has established Risk Management Regulations in which the potential risks to the company and the Group are precisely defined, and management systems and preparations related to preventing the risks or responding to risk after they have occurred are set out.

Shin-Etsu Chemical has established Company-wide Business Continuity Management Regulations in accordance with the Risk Management Regulations which sets out general matters regarding business continuity such as the formulation of a business continuity plan and operations management. Division-specific and plant-specific business continuity plans have been formulated as concrete plans which take these matters into consideration. Moreover, we have formulated Regulations of Disaster Countermeasures Headquarters to ensure business continuity in the event of a disaster.

Aim of Business Continuity Plan

The Shin-Etsu Group considers supply of high-quality materials based on superior technologies to be an important contribution to society and regards ensuring continuity of supply as a major corporate responsibility. Many of the Group's products have high market share not only in Japan but also globally, and our products are often used for highly specialized applications in cutting-edge industries. An interruption of the supply of these products would therefore have a major social impact. In response, the aim of our Business Continuity Plan is to allow us to continue fulfilling our responsibility for vital product supply in the event of a major earthquake, an explosion or fire, or other serious disaster or risk situation.

Overview of Business Continuity Plan

The division-specific business continuity plans are predicated on the damage that could be caused by a major earthquake, fire or explosion, and set out the procedures for each business unit. Their concrete content can be summed up in the five following points:

- (1) Projection of disaster scenarios
- (2) Identification of priority businesses and products
- (3) Setting of target recovery period
- (4) Formulation of alternative plans to enable business continuation
- (5) Formulation of advance risk reduction action plans Our priority businesses and products include items

for which a substitute product or supplier is not readily available, such as pharmaceutical and medical products, custom-made items, and products which enjoy a high market share. Given our social responsibility for the supply of these products, we are committed to continuing this supply even in the event of a disaster.

The plant-specific business continuity plans are coordinated with the division-specific business continuity plans and contain a response plan for the individual plant in the event of a major earthquake, explosion, fire, etc.

We will continue in future to carry out appropriate reviews to improve the efficacy and practicality of the Business Continuity Plan.

Business Continuity Management System in the Event of Emergency

In the event of an emergency, a Company-Wide Headquarters for Countermeasures headed by the company president will be set up immediately in line with the Regulations of Disaster Countermeasures Headquarters. Below this will be set up Head Office Supervisory Departments attached to the Company-Wide Headquarters for Countermeasures, Division Headquarters for Countermeasures headed by the relevant divisional general manager, and Plant headed by the relevant plant manager.

Under this system, each countermeasure headquarters and organization is responsible for implementing emergency action procedures in accordance with predefined operational criteria and for taking measures to ensure continuity of operations.

Outline of Business Continuity Plan

Risk scenarios: major earthquake, fire, explosion or other serious risk

Major objective: to ensure continuity of high-priority business operation and product supply.

Business Continuity Structure in the Event of Emergency



http://www.shinetsu.co.jp/e/purchasing/kihon.shtml

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Challenges and Results of Shin-Etsu Chemical in Fiscal 2011

Shin-Etsu Chemical has adopted a mid-term target of reducing greenhouse gas emissions intensity to 50% of the 1990 level by 2015

Shin-Etsu Chemical has adopted the two mid-term environmental targets of reducing greenhouse gas emissions intensity¹ to 50% of the 1990 level by 2015 and of realizing zero emissions (landfill waste 1% or less of all waste generated) by 2015. The Company is working towards these reductions.

In 2011, our greenhouse gas emissions intensity was reduced to 60.6% of 1990 levels. This outcome was achieved through a variety of initiatives including the installation of co-generation systems and steam turbines, energy-saving investment such as absorption refrigeration, alteration from heavy oil to natural gas as a fuel source, exhaust heat recovery and increased productivity due to process improvements. The entire Group has been making similar efforts, however, the greenhouse gas emissions intensity

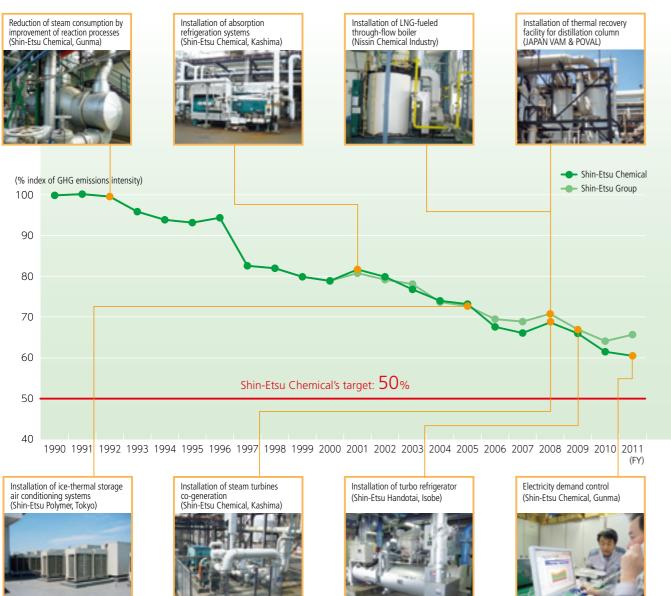
- 1 The intensity figure shown are in metric tonnes CO₂e per production.
- * Due to an increase in the companies covered in this year's report, the figures differ to those in last year's report.
- * In order to clearly define the reduction efforts, the average value from 2000-2010 of the conversion factor for CO₂ from electricity supply is used.

for the Group in 2011 was 65.8% of the 1990 level, which represents an increase on the 2010 level. This was a result of the damage sustained in the Great East Japan Earthquake at some production plants and a fall in production volume, and furthermore, because of an increase in energy consumption for the repair work, the ratio of emissions of greenhouse gases to production volume increased.

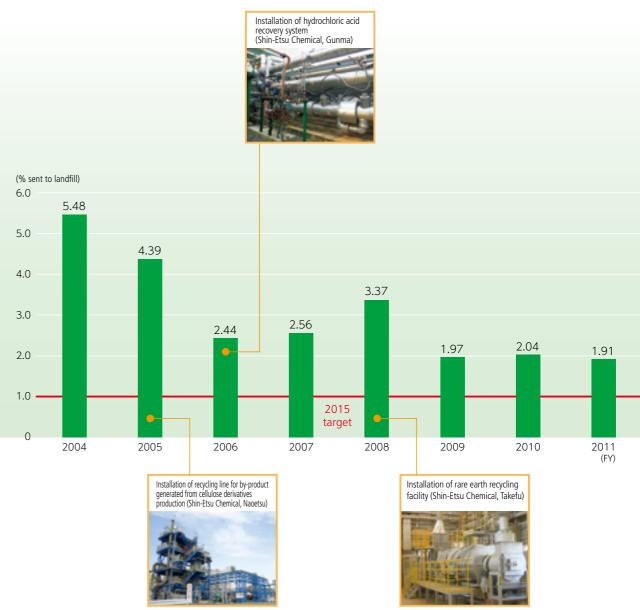
As for the zero emissions target, landfill waste as a proportion of total industrial waste generated came to 1.91% in fiscal 2011. This result was due to process improvements which increase yield and reduction of industrial waste generated, investment in such areas as hydrochloric acid recovery, cellulose recycling, waste treatment facilities, and effective use of waste products

* Due to standarization for generation volumes of waste, corrections were performed retroactively on data for some production plants up until 2004. Because of this, figures

■ Greenhouse gas emissions intensity relative to fiscal 1990 levels



Percentage of total waste material sent to landfill (Shin-Etsu Chemical)



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Reducing the Environmental Impact of Business Activities, Input/Output

As a key materials manufacturer, we aim to reduce environmental impact not only for our own benefit, but also for that of society as a whole, by developing advanced technologies

Resources/Energy



Energy Consumption (crude oil equivalent)

2,286 million liters (276 million liter increase from previous fiscal year)



(29 million m3 increase

from previous fiscal year)

Raw materials



- Pulp
- Polycrystalline silicon Industrial salt Acetic acid

• Metalic silicon

Shin-Etsu Group

By promoting the reduction of environmental impact at all stages from product design through raw material procurement to the establishment of an efficient manufacturing system, we are limiting increases in the amount of energy, water and raw materials needed to match the rising volume of products manufactured.



Development

We are promoting product design and development that emphasize the importance of reducing environmental impact



Procurement

The procurement of materials on a global basis is another method being used to reduce environmental impact



Production

Improved manufacturing systems are being established with less environmental impact due to the promotion of energy saving, recycling and the reuse of resources

Amount of Water Recycled: 2.043 million m³

· Vinyl chlovide monomer

(261 million m³ increase from previous fiscal year) Water Recycling Ratio:

> 91.1% (0.1% decrease from previous

OUTPUT

Exhaust

Gases Emitted

CO2: 4,242,000 CO2-ton (471,000 CO2-ton increase from previous fiscal year)

Discharges of Water

Soot: 35 tons

(8 ton decrease from previous fiscal year)

NOx: 1.301 tons (27 ton increase from previous fiscal year)

SOx: 267 tons (14 ton decrease from previous fiscal year)

COD: 5,042 tons

Total Discharges of Water: 189million m³ (27 million m³ increase from previous fiscal year)

(434 ton increase from previous fiscal year)

BOD: 337 tons

(18 ton increase from previous fiscal year)

Waste



Generated: 111,000 tons (16,000 ton decrease from

Amount of Waste Amount of Waste Recycled: previous fiscal year)

76,000 tons (15,000 ton decrease from

Waste Recycling Ratio: 68.9%

(2.6% decrease from previous fiscal year)

2,600 tons (1,100 ton decrease from previous fiscal year)

Amount Waste

for Landfill:

Final Disposal Ratio: 2.37% (0.51% decrease from

previous fiscal year)

PRTR (Pollutant Release and Transfer Register) System



Amount released: **157 tons**

Amount transferred: **777 tons**

(113 ton decrease from previous fiscal year)

To Society



Products

PVC Silicone resins

Cellulose derivatives

 Optical fiber preforms POVAL

Silicon carbide

Others

Silicon wafers

(34 ton decrease from previous fiscal year)

 Rare earth magnets • Synthetic quartz photomask substrates

Hot-melt adhesives

* As the industrial waste standards and PRTR systems vary from country to country, the figures shown represent the aggregated data from the Shin-Etsu Group's Japanese domestic operations only.

* Water recycling ratio indicates amount recycled as a proportion of total water used. Waste recycling ratio indicates amount recycled as a proportion of total waste generated.

* Final disposal ratio indicates amount of waste for landfill as a proportion of total waste generated

http://www.shinetsu.co.jp/e/profile/kankyo.shtml

Environmental Management

Environmental Accounting

The Shin-Etsu Chemical discloses data about costs required for environmental conservation in compliance with guidelines

Environmental Accounting

Category

(1) Pollution prevention costs

(2) Global environmental conservation costs

Business area costs

In fiscal 2011, Shin-Etsu Chemical applied the Environmental Accounting Guidelines 2005 prepared by the Ministry of the Environment, Japan, to calculate the investments and expenditures involved in 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.

Major investments

- Installation of an energy-recovering facility
- Promotion of energy savings resulting from improvements in production processes
- Promotion of energy loss prevention
- Build-up and renewal of wastewater treatment equipment
- Installation of equipment to recycle raw materials, and equipment to treat and recover waste
- · Improvement of industrial waste disposal facility
- Environmental improvement, etc., of plants and surrounding areas

Environmental Conservation Costs in Fiscal 2011

Investment	Expenditure
581	3,568
350	1,268
404	1,711
162	17

(Millions of Yen)

(3) Resource recycling costs	Waste reduction, recycling and other measures	404	1,/11
Upstream and downstream costs	Green purchasing and container and packaging measures	162	17
Administration costs	Environmental management, environmental impact monitoring and environmental education measures	0	422
Research and development costs	Research and development of environmentally conscious products and technologies	37	3,140
Social engagement costs	Donations and contributions to environmental protection	0	27
Environmental remediation costs	Assessment, handling and other costs related to environmental degradation	0	46
Total		1,534	10,199

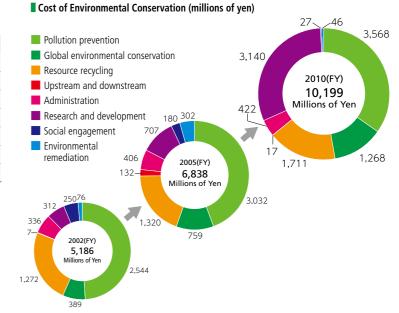
Details

Energy saving and global warming mitigation measures

Prevention measures for air, water, noise and other types of pollution

■ Economic Benefits of Environmental Accounting in Fiscal 2011

Details of benefits	Economic benefit (Millions of Yen)
Energy savings	619
Improved production efficiency	1,416
Production process	1,327
Secondary materials costs	89
Reduction in waste treatment costs	33
Profit from sale of valuable resources	108
Total	2,175



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Environmental Initiatives

The Shin-Etsu Group is addressing all issues that are relevant to realizing energy saving and mitigating global warming, including reducing environmental impact, protecting the environment and recycling resources

Reduction of Environmental Impact

Reducing Energy Consumption

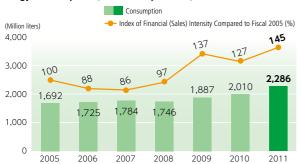
The Shin-Etsu Group manufactures a wide variety of products. Energy sources including electricity, heavy oil, kerosene, diesel oil and steam are used to support this manufacturing. The Shin-Etsu Group selects the most suitable energy source for the manufacturing facilities and utilities used in such processes as reaction, refining, synthesis and processing.

Although overall energy consumption is growing due to increased production, each company and plant works to save energy.

The Shin-Etsu Group consumed 276 million liters more energy in fiscal 2011 than the previous fiscal year, increasing total consumption to 2,286 million liters (crude oil equivalent). Under the SCOPE 11, we have been progressing with a switch from heavy oil to natural gas, and as a result the share of natural gas in fuel use is very high. Under the SCOPE 2¹ measurement, electric power accounts for approximately 90%. From fiscal 2010, index of financial (sales) intensity increased due to a change in the component ratio of manufactured products.

1 A term for the breakdown of greenhouse gas emissions by energy type as defined under the Greenhouse Gas Protocol Initiative, a set of guidelines unde the global agreement on greenhouse gas emissions. SCOPE 1 covers direct emissions of greenhouse gases by the enterprise itself, while SCOPE 2 covers indirect emissions through external energy supply.

Energy Consumption (crude oil equivalent)



Detailed Chart of Energy Consumption by Energy Type

(Calorific Equivalent) Unit: peta joule								
		2005	2006	2007	2008	2009	2010	2011
	Natural Gas	11.1	11.6	12.9	15.5	18.4	20.4	24.2
SCOPE 1	Heavy Oil A + Heavy Oil C	3.5	3.5	2.6	1.1	0.6	0.6	0.6
	LPG+LNG	2.4	2.4	2.2	1.4	1.9	1.6	1.6
	Other	1.7	1.3	1.1	0.9	0.9	0.9	0.6
SCOPE 2	Purchased Electric Power	40.1	41.5	43.2	42.1	45.1	48.2	55.5
	Purchased Steam	6.5	6.4	6.9	6.3	6.0	6.1	5.8
	Total	65.4	66.7	69.0	67.5	72.9	77.7	88.4

Mitigation of Global Warming

The Shin-Etsu Group works to reduce greenhouse gases to mitigate global warming.

Although CO2 emissions have risen as our energy consumption increases, each company and plant is making endeavor to reduce CO2 emissions.

Fiscal 2011 CO₂ emissions totaled 4,242 thousand CO₂tons, an increase of 471 thousand CO₂-tons from fiscal 2010 due to an increase in production. Small quantities of greenhouse gases other than carbon dioxide, including methane and sulfur hexafluoride, are emitted. From fiscal 2010, index of financial (sales) intensity increased due to a change in the component ratio of manufactured products.

CO₂ Emissions



Water Resource Initiatives

To ensure efficient use of limited water resources, the Shin-Etsu Group is using cooling water recycling systems to increase the proportion of water reused. The majority of the river water we use is used by our European Group companies. This river water is used for cooling and can be returned to the river untreated without causing pollution.

Water withdrawals in fiscal 2011 was 200 million m³. a 29 million m³ increase from fiscal 2010. The amount of water recycled came to 2,043 million m3, a 261 million m³ increase from fiscal 2010. Discharges of water was 189 million m³, a 27 million m³ increase from fiscal 2010. The fiscal 2011 water recycling ratio reached 91.1%. The increases in water withdrawals and discharges of water are due to an increase in production.

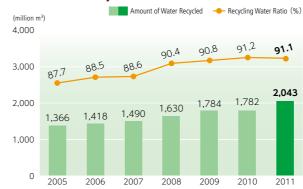
Water Withdrawals



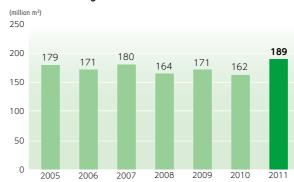
Water Withdrawals by Source

						OTHE.	IIIIIIIIIII
Category	2005	2006	2007	2008	2009	2010	2011
Groundwater	16	16	16	17	16	18	18
Industrial Water	39	42	41	39	38	38	37
Tap Water	11	11	12	11	8	9	9
River Water	125	115	122	106	117	105	135
Other	1	1	1	1	1	2	2
Total	192	184	193	174	181	171	200

Amount of Water Recycled



Amount of Discharges of Water



Prevention of Water Pollution

The Shin-Etsu Group uses large quantities of industrial water, groundwater and tap water to manufacture and clean products and to maintain and manage facilities. Wastewater is discharged into rivers after being checked for compliance with limits specified under laws and regulations. pH1, BOD2, SS3, COD4 and other items are measured regularly to monitor impact on water quality. We are also working to reduce the amount of wastewater discharged.

Fiscal 2011 COD discharge totaled 5.042 tons, a 434 ton increase from fiscal 2010. Fiscal 2011 BOD discharge totaled 337 tons, an 18 ton increase from fiscal 2010.

Index of hydrogen ion concentration (-log [H+]) indicating acidity (<pH7), neutrality (=pH7) or alkalinity (>pH7) of water solution

Abbreviation of Biochemical Oxygen Demand: indicates the amount of oxygen required for water-borne organisms to break down contaminants in water and is a measure of the degree of water pollution.

Unit: million m3

Suspended Solids (SS): index of organic and mineral particles suspended in water reflecting level of turbidity.

Chemical Oxygen Demand (COD): amount of oxygen required to oxidize the pollutants (organic compounds) in water using an oxidizing agent.

Example for Discharges of Water Monitoring: (Shin-Etsu Chemical Naoetsu)

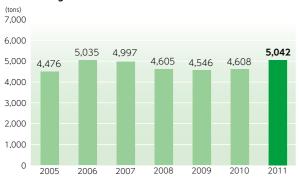
	Legal limitations	2005	2006	2007	2008	2009	2010	2011
рН	5.8 ~	6.7 ~	6.9~	6.4~	6.9~	7.1 ~	7.0 ~	7.0 ~
	8.6	7.5	7.5	7.3	7.5	7.7	7.4	7.4
BOD	≦ 60	41	50	-	-	-	-	-
(mg/L)	≦ 40	-	-	31	23	23	32	21
SS (mg/L)	≦ 50	30	42	26	24	29	40	25

Note 1) pH is the minimum and maximum limitations from multiple

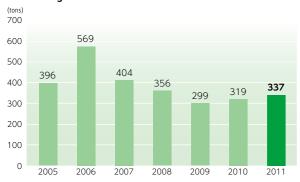
Note 2) BOD and SS are maximum limitations from multiple measurements. Note 3) The BOD legal limitation was 60mg/L until 2006 but was strengthened to 40mg/L from 2007. To coincide with this, we installed more our wastewater treatment facilities and achieved a large decrease in BOD discharge.

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COD Discharge



BOD Discharge



Prevention of Air Pollution

The Shin-Etsu Group is endeavoring to reduce emissions of air pollutants. We use no specified CFCs. Some Group companies use HCFC-22, HCFC-123 and other HCFCs as refrigerant of refrigerator, but these are subject to appropriate operation to prevent leakage into the atmosphere. At the same time, switch to CFCs substitutes such as HFC-32 and HFC-134a is being actively progressed. A large reduction in sulfur oxides (SOx) was achieved by fuel switch from heavy oil to natural gas. Air pollutant levels from boilers and incinerators are measured regularly to check for compliance with legal limitation.

Fiscal 2011 soot emissions totaled 35 tons, an 8 ton decrease from fiscal 2010. NOx emissions came to 1,301 tons, a 27 ton increase from fiscal 2010. SOx emissions came to 267 tons, a 14 ton decrease from fiscal 2010. The increase in NOx emissions was due to an increase in production compared to fiscal 2010.

Sample of Emission Gas Monitoring Result: Boiler (Shin-Etsu Chemical Naoetsu)

	Legal limitations	2005	2006	2007	2008	2009	2010	2011
Soot (g/Nm³)	≦ 0.25	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NOx (ppm)	≦ 150	110	99	88	98	98	92	91
SOx (k value)	≦ 11.5	0.45	<0.025	<0.025	<0.025	<0.025	<0.016	<0.003

Note 1) The figures shown are the maximum limitations from multiple measurements throughout the year

Note 2) The sign "<" indicates a limitation below the detectable limit.

Note 3) SOx are converted to the unit value (k value) as per the reporting standard stipulated in the Air Pollution Control Act.

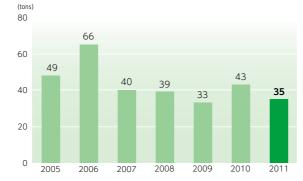
Sample of Emission Gas Monitoring Result: Incinerator (Shin-Etsu Chemical Gunma)

	Legal limitations	2005	2006	2007	2008	2009	2010	2011
Soot (g/Nm³)	≦ 0.15	<0.005	<0.005	<0.005	<0.005	<0.005	0.041	0.024
NOx (ppm)	≦ 250	110	62	55	92	82	71	120
SOx (k value)	≦ 17.5	0.51	0.47	1.03	1.87	0.66	1.25	0.60
Hydrogen chloride (g/Nm³)	≦ 700	18	24	51	27	23	29	20
Dioxins (ng-TEQ/Nm³)	≦ 5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

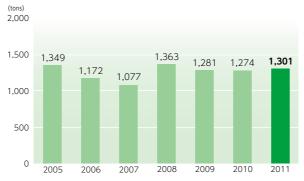
Note 1) The figures shown are the maximum limitations from multiple measurements throughout the year.

Note 2) The sign "<" indicates a limitation below the detectable limit.

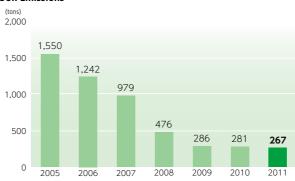
Soot Emissions



NOx Emissions



SOx Emissions



Reduction of Waste Genereted and Recycling

The different production processes generate various types of waste such as unreacted materials, by-products, defective products and damaged or unused parts. The Shin-Etsu Group promotes the 3Rs (reduce, reuse, and recycle) to ensure effective use of the Earth's limited resources. We also periodically check outside contractors at their sites so as to ensure proper handling of waste consigned to them.

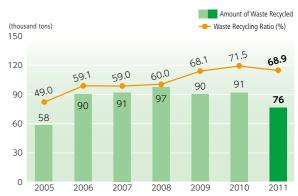
The amount of waste generated in fiscal 2011 totaled 111 thousand tons, a 16 thousand ton decrease from fiscal 2010. The amount of waste recycled in fiscal 2011 totaled 76 thousand tons, a 15 thousand ton decrease from fiscal 2010. The fiscal 2011 recycling ratio was 68.9%. The amount of waste for landfill in fiscal 2011 totaled 2.6 thousand tons, a 1.1 thousand ton decrease from fiscal 2010. The final disposal ratio was 2.37%.

 $\ensuremath{^{\star}}$ As the industrial waste standards vary from country to country, the figures shown represent the aggregated data from the Shin-Etsu Group's domestic Japanese operations only.

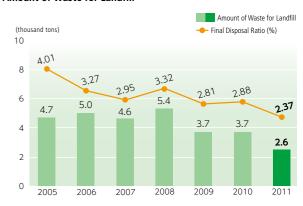
Amount of Waste Generated



Amount of Waste Recycled



Amount of Waste for Landfill



Prevention of Soil Pollution

Each plant carries out groundwater and soil monitoring in accordance with the Soil Contamination Countermeasures Act to check on groundwater conditions.

Initiatives for Biodiversity Preservation

The Shin-Etsu Group undertakes environmentally considerate product design starting from the product development stage. At the same time, we are also meeting our responsibility as a chemical company by working actively to stringently enforce chemical substance management, 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 scenic improvement and tree-planting in areas neighboring our plants.

Furthermore, we request that our suppliers implement environmental conservation initiatives concerning forestclearing and other such activities.

Responding to Chemical Substances Control Law

Using the PRTR system as stipulated under the Chemical Substances Control Law¹, the Shin-Etsu Group reports on the amount of chemical substances that it releases into the environment and works to reduce this amount.

Fiscal 2011 total release amounted to 157 tons, a 34 ton decrease from fiscal 2010. The total amount transferred was 777 tons, a 113 ton decrease from fiscal 2010.

1 Chemical Substances Control Law

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.

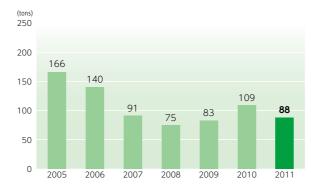
PRTR System Total Release



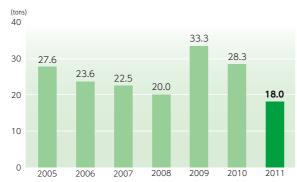
PRTR System Total Transferred



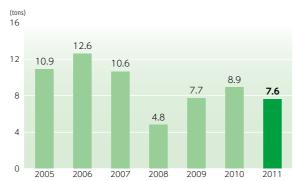
PRTR System Chloromethyl Release



PRTR System 1,2-dichloroethane Release



PRTR System Chloroethylene Release



Examples of the Shin-Etsu Group's Initiatives for Energy Saving

Promoting Solar Photovoltaic Power Generation

Shinano Electric Refining, Kashiwabara Plant

Shinano Electric Refining's Kashiwabara Plant is located on the border of Nagano Prefecture and Niigata Prefecture, in a mountainous region with high snowfalls. The New Energy and Industrial Technology Development Organization (NEDO) is promoting solar photovoltaic power generation in these kinds of regions. As Shinano Electric Refining is promoting reductions in environmental loads, solar photovoltaic power generation was installed in December 2006.

Following that, the project was expanded to effectively and we utilize them to provide the power for air conditioning and lighting for the office and lighting and power for the manufacturing division.



Nissin Chemical Industry, Head Office and Plant

Nissin Chemical Industry has already implemented various initiatives to reduce the environmental impact. In 2010, when an extra building was added, in addition to considerations about preserving greenery and complying with revisions to the Factory Location Act, solar photovoltaic power generators were installed as an initiative for the environment. In summer when the power generating efficiency is good, most of the power needs of the office can be met by the solar power generators.

The solar power generators installed also function as a waterproofing measure for the roof of the building.



Shin-Etsu Silicones (Thailand) Obtains ISO 50001 Certification

Shin-Etsu Silicones (Thailand) obtained ISO 5000111 certification in November 2011. This standard was issued in June 2011 and it is a new international standard for energy management.

In Thailand, energy consumption has been increasing in line with industry development and the Thai government requires all businesses operating domestically to adopt energy-saving measures. As a part of this, the Thai Ministry of Energy has selected ten domestic companies as model companies, and began to promote the introduction of energy management systems from October 2010. Shin-Etsu Silicones (Thailand) has been selected by the Ministry as one of these companies.

Since Shin-Etsu Silicones (Thailand) established an energy saving committee in 2007, this committee has been the center of efforts to save energy. In order to obtain ISO 50001 certification, the company president nominated a representative for energy management and under the representative, the following actions were carried out: documentation of the manual and procedures for energy management, confirmation of the status of energy consumption, measurement of energy efficiency, and formulation of an action plan to improve energy efficiency. The company was then able to obtain

ISO 50001 certification.

This certification is the first step in energy saving activities and the company is working to make further improvements in this area.

1 ISO 50001

An international standard requiring business and other organizations to manage energy usage and achieve continual improvements in energy efficiency and saving



Safety and Health

Safety Measures

By putting in place highly reliable safety measures and devoting efforts to everyday education and training, we ensure the ability to respond to any situation

Process Safety and Disaster Prevention

Safety Measures for Facilities

At the installation and facility design stage, each Shin-Etsu Group plant ensures compliance with legal regulation and technical standards. Additionally, advance evaluations of safety strategy (risk assessment) are carried out and discussions and confirmation through the Safety Inspection Committee and Preventative Safety Committee are held. Meanwhile, HAZOP¹, FMEA² and What-if³ and other analysis techniques are used appropriately to identify risk in facilities and take corrective action.

The review of existing facilities and processes which are potentially the source of serious accidents or disaster has been completed and corrective measures are in place. We will continue with ongoing efforts to identify risks in facilities and take corrective action so as to raise the level of facility safety measures.

- 1 HAZOP (Hazard and Operability Study)
- A method of checking safety measures by comprehensively investigating the causes of operational irregularities in chemical processes.
- 2 FMEA (Failure Mode and Effects Analysis)
- Method of checking safety measures by analyzing the effect on the system as a whole of malfunction in the individual machines that make up the plant
- Technique that repeatedly asks "what if?" to evaluate safety measures and

Emergency Response

To prepare for the eventuality of fire, explosion or other serious accident or a disaster such as earthquake or typhoon, we have formulated emergency response plan, put in place a company-wide emergency response system and laid down response procedures. Moreover, each plant and business site regularly carries out emergency drills based on a range of scenarios including explosion, fire, hazardous substance leakage, and major earthquake to test the effectiveness of response procedures.

Additionally, in order to provide for the event of an accident during transportation of hazardous, high-pressure gas or similar, we have put in place an emergency contact system. These emergency drills, conducted where necessary with the cooperation of local firefighting and police units and other official agencies, are open to the public.



Fire Drill (October 2011, Kashima Plant)

Occupational Health and Safety

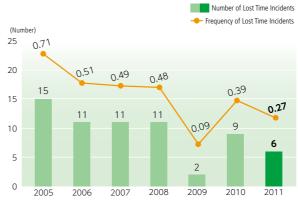
Action on Health and Safety

We carry out risk assessment of operational procedures to promote safety in the workplace. Our efforts to prevent accidents and malfunctions at the contact points between humans and facilities that arise in the process of facility automation are based on foolproof¹ measures such as the installation of safety covers and safety barriers, and safety-type limit switches. The efforts are also based on failsafe² systems that continue to guarantee safety in the event of malfunction, such as safety devices, interlocks and

We also emphasize action on safety by employees themselves and intangible safety activities such as review and compliance with manuals. In particular, the zero-accident program is designed to raise the ability of individuals to recognize dangerous situations, and includes activities such as hazard prediction training, reporting of close-call incidents and safety concerns, pointing-and-calling safety procedures, and hands-on hazard awareness training.

- Refers to safety measures built in at the design stage so that even if operatives
- Refers to equipment and systems designed to revert to safe operating mode in the event of improper user operation or machine fault

Number of Lost Time Incidents (Shin-Etsu Group Japanese domestic operations)



* The data of above graph are calendar year as stipulated under the Industrial Safety and Health Act

Education and Training

To improve the abilities and competence of individual employees, the necessary education and training is carried on systematically at all plants and workplaces.

As well as skills training in operations and procedures, we provide safety education for accident prevention, handson training using simulated danger situations, education in environmental conservation, training in handling of chemical substances, and drills for the event of electricity outages and other irregular situations. We also provide regular training for employees of different grades and in different fields of work and offer study programs for legal qualifications to raise staff competence.

Environmental Control and Safety Audits

To check that reliable progress is being made toward the goal of 'Safety and Environment First' in environmental control, accident prevention and other areas of environmental conservation and occupational health and safety, comprehensive environmental safety audits and special audits on selected themes are carried out regularly. On these occasions, we invite participation by external experts, who provide advice and recommendations.

In audits of recent years, to strengthen and enhance safety management systems, we have identified and the followed up these key tasks: setting of numerical targets, raising the level of internal audit, ensuring that manuals are improved constantly and complied with, ensuring the safety of construction operations, assessment of plant risk and the adequacy of response measures.



Autumn environmental control and safety audit (November 2011, Naoestu Precision)

Accident and Disaster Reporting

In fiscal 2011, there was a fire at Shin-Etsu Chemical's Gunma, however, there was no impact on the environment of the surrounding locality.

Awarded the Minister's Prize. the Ministry of Economy, Trade and **Industry for high-pressure gas safety**



Mitsuru Daimaru, head of the manufacturing section at Kashima Vinyl Chloride Monomer was awarded the 2011 Minister's Prize for high-pressure gas safety from the Ministry of Economy, Trade and Industry. With the goal of raising safety awareness and promoting safety regarding high-pressure gas, every year the Ministry of Economy, Trade and Industry awards a prize for the company and safety officers making daily efforts to prevent disasters involving high-pressure gas and achieving outstanding results. As the safety officer for the production of high-pressure gas, Mr. Daimaru was recognized for his excellent achievements regarding safety.

Since the company began operations in 1970, it has consistently maintained a "safety first, no accidents, no disasters" attitude to safety and received the Superior High-Pressure Gas Production Facility Award from the Ministry of Economy, Trade and Industry in 2009. Mr. Daimaru's award recognizes the company's initiatives for improving the level of safety management as a company authorized to test and manufacture high-pressure gas.



Product Safety

Product Safety and Quality-related Initiatives

The Shin-Etsu Group is committed to the safe use of products at our customers

Product Safety

Product Safety Promotion

Based on the basic company policy of respect for human dignity, the Shin-Etsu Group puts the highest priority on product safety as well as plant safety and environmental conservation, and implements necessary measures throughout the Group.

FMEA and other analyses are carried out at every process from product development to product commercialization to identify potential issues for system performance and/or product safety. Qualitative analysis is undertaken to evaluate issues identified in order to improve product design and manufacturing processes.

Providing Information on Products and Responding to Associated Legislation

The Shin-Etsu Group provides SDS¹ for each product to customers. Customers are encouraged to take appropriate safety precautions for understanding hazardous and harmful characteristics of the product, undertaking all required legal procedures whenever necessary, installing safety systems and/or equipment to eliminate harm, and wearing protective gear.

As a safety measure during transportation, the Shin-Etsu Group issues a Yellow Card² and/or Container Yellow Cards³ that are affixed to containers. A 2006 amendment to the Japanese Industrial Safety and Health Act introduced the GHS⁴ system of hazardous and toxicity warning labeling, and the Shin-Etsu Group complies with these and other relevant legal requirements.

Within Japan, the Shin-Etsu Group implements appropriate management from research and development to commercial production by confirming the safety of new chemical substances and submitting manufacturing permit applications in accordance with the requirements of the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.⁵ and other applicable legislation such as the Industrial Safety and Health Act. The Shin-Etsu Group has completed preliminary registration under the REACH regulation and is working to comply strictly with the appropriate transmission of information along the supply chain and other aspects of the regulation. The Shin-Etsu Group is also committed to developing new manufacturing technologies designed to totally eliminate the use of RoHSdesignated specified toxic substances as required under the RoHS directive.

1 SDS (Safety Data Sheet)

SDS stands for Safety Data Sheet, which lists the physical and chemical properties of the chemical substance together with harmfulness and emergency response procedures. Designed to promote safer 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.

2 Yellow Cards

The yellow 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.

3 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.

- 4 GHS (Globally Harmonized System of Classification and Labeling of Chemicals) Internationally standardized system of classification and labeling of chemicals.
- 5 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture etc.

A law concerning examination and regulation of manufacture and other aspects of chemical substances.

Quality Control

Quality Control System

The structure of Shin-Etsu Chemical is essentially divisional organization. Each division (including associated Group companies) takes responsibility for quality assurance of its own products.

Requests and suggestions from customers are channeled immediately by the sales-related departments that are in direct contact with customers to the related departments of each division and Group company, R&D Department, Quality Assurance Department and Manufacturing Department. This feedback is incorporated into new product research and development and also used to improve existing products. The internal feedback system helps strengthen reliable relationships with customers.

Almost all Shin-Etsu Chemical plants, both domestic and overseas, have obtained certification of their quality management system such as ISO 9001 and ISO/TS 16949.

So that we can supply products and services that generate customer satisfaction, each of our plants has its own quality management policy. At the same time, by implementing the PDCA (Plan-Do-Check-Act) cycle, we work to raise the effectiveness of the quality control system, enhance product quality, and improve service.

Response to Complaints

In regards to complaints such as quality complaints, each division independently handles complaints through a process of complaint response, investigation and determination of the cases, and preventive action for recurrence. Particularly in cases involving product recall or product liability, where the impact on society may be significant, the complaint is ranked as a serious complaint and receives focused attention in a separate category from other complaints. In the event of a serious complaint, senior management is informed immediately so that a company-wide response can be mounted.

Shin-Etsu makes it an absolute rule to make an initial response to all quality complaints from customers within 48 hours of receipt.

Auditing and Support for Quality Improvement

Quality audits are implemented to learn from complaints and improve quality and customer service with the target of reducing quality issues to zero. Quality audits provide customer-oriented and quality cost-based evaluations of quality programs in each department. This information is used to identify and remedy weak points in quality control activities and systems. The aim is to learn from past complaints and identify the root cause of quality issues in order to build a stronger basis for the future prevention. The PDCA cycle is applied to problems pointed out by customers for improvement and follow-up. The Six Sigma program¹ is also deployed on a company-wide basis as a means of improving quality levels.

1 Six Sigma program

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 Shin-Etsu Group.



Quality audit (August 2011, Takefu Plant)

Gold medal for small group activities at Korean national convention



In Korea, there is a vigorous movement for small group activities¹. Every year the Korean Ministry of Knowledge Economy² holds the National Quality Management Convention and in October 2011 at the 37th convention, Group company Shin-Etsu Silicone Korea's small group activity team was awarded a gold medal in the small and midsize business sector.

The company began small group activities at its Daeso plant in 1992 and every year a company presentation is held. From 2010, the winning team began to compete in the regional contest and in the following year the team competed in the national contest for the first time, receiving a gold medal for their efforts.

1 Small Group Activities

- In order to improve safety, quality or efficiency in manufacturing sites, a few people form a group and carry out improvement activities as a group.
- 2 Ministry of Knowledge Economy
 The Korean equivalent to Japan's Ministry of Economy, Trade and



Human Rights and **Employment**

Relations with Employees

People create and support technology We aim to provide ideal working conditions so they can do so

The Shin-Etsu Group respects fundamental human rights and implements a variety of approaches that create a workfriendly environment where employees can fulfill their potential and build a career, and that help them realize a full and healthy lifestyle.

Health Considerations

Employee health programs

To further decrease staff sickness, we are working to offer an ample regular health consultation service, provide health guidance for lifestyle-related diseases, respond to mental health issues, and focus on activities that promote fitness and develop physical strength.

We have also established Health Committees at our head office and branch offices, as well as Safety and Health Committees at each plant district. These committees undertake activities to maintain and improve employee health such as formulating annual plans, while receiving information and guidance-including about measures to improve the work environment and prevent damage to health–from industrial physicians.

In addition, our Fitness and Physical Strength Development Promotion Committees work together with Medical Treatment Rooms to organize physical strength monitoring, and to hold seminars and events for physical strength improvement. To provide health support to include employees' families, the corporate health insurance society

cooperates with expert organizations to provide the 24hour Family Health Consultation Desk.

Respect for Human Rights

Human Rights Enlightenment Promotion Committee

The Shin-Etsu Group is fully aware of corporate social responsibility. Our aim is to resolve various human rights issues from our position as a corporation, and to create energetic, cheerful workplaces where people are inspired to work. The Human Rights Enlightenment Promotion Committee serves a central role to hold human rights enlightenment training for officers and employees, and also works to improve awareness of human rights and cultivate a culture of human rights.

In addition, Shin-Etsu belongs to both the Industrial Federation for Human Rights, Tokyo, and the Industrial Federation for Anti-Discrimination, Osaka. Our employees are encouraged to participate in training sessions held by both federations and other organizations to raise staff awareness of human rights.

Efforts to abolish child labor and forced labor

* The content of pages 35 to 38 does not include the Shin-Etsu Polymer Group.

The Shin-Etsu group conforms to international guidelines, and does not approve of forced labor or child labor of any type. We conduct a survey of Group companies, including overseas companies, each year. Through this survey, we confirm that our employment conditions are based on the international labor standards of the International Labour Organization (ILO) and that no forced or child labor is taking place.

Performance-based personnel evaluation systems and equal opportunities

We have 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 so that they can carry out personnel evaluations in an impartial way. To further increase transparency, evaluation standards are made available and the results are also disclosed. Furthermore, a system of interviews between the evaluator and the person being evaluated has been established to ensure that the two parties can communicate successfully.

During interviews, each staff member and his/her immediate superior use Communication Sheets to ensure mutual awareness of the superior's expectations regarding what he/she would like the subordinate to accomplish, as well as what challenges the subordinate would like to take on. The interviews are also an opportunity to set targets for the next

Quality Control. Or, activities in manufacturing industry that encourage employees to make proactive contributions to workplace management and improvement, leading to improvements in quality.

six months and to provide feedback on progress, and serve in this way to promote further development of abilities.

Education/Training and Personal Development

Auditing student system

In 1962, we established an auditing student system with the goal of improving workplace cohesion. Under the system, up to about ten employees each year are chosen from plant manufacturing sites and sent to study at universities for one year. In the 50 years since the system was introduced, 495 employees have completed the program and now function as leaders in the workplace.

Training for international adaptation

The Shin-Etsu Group is expanding its business activities throughout the world. Competency to communicate in foreign languages is therefore an essential skill for smooth operations. To this end, the Group provides English language training to teach meeting and presentation skills and offers intercultural communication training to promote awareness and understanding of cultural differences commonly encountered overseas. Recently, in light of the Company's business expansion in China, Chinese conversation classes have also been launched.

Participating in training for international adaptation

This training made me recognize the importance of language ability and presentation skills anew

I enrolled in training for international adaptation with the aims of improving my English language abilities and learning practical presentation skills. To participate in this training, I had to prepare slide materials on a subject that was given in advance. On the first day, I used these materials to give a presentation in English. Afterwards, I learned about how to put presentations together, English expressions, and other topics. On the final day, I made use of the things I had learned during this training to once again give my presentation from the first day, this time with improved content. I then received feedback from the instructor and other participants. Although this short training only lasted for three days, I think it was a good opportunity to

> learn about various things. I hope to use the things I

learned in this training during my communication, even when it is not conducted in English.

Keisuke Fujino Shin-Etsu Chemical

Training System

	Training for different staff grades		Specialized education	General education	Special education	Environment and safety education	Quality control education	Six Sigma education
General manager level	Advanced management S/M job fa training	nily traing	Patent training					. training
Section manager level	Middle management training	ling	Training for adaptation to internationalization English language training, meeting skills course I / II	Mental health seminar	Course for management development trainning (external training)	Specialized education in environmental control and safety	QC¹ master course	Black belt training
Junior manager level	Line management training training Leader training	family chan	English language training, presentation skills course I / II Chinese conversation classes	Human rights awareness training	Auditing student	Supervisor education Safety education	QC intermediate course	Green belt
Regular employees	Junior leader training New employee second-phase traini New employee introduction trainir	g eq	Intercultural communication training		system (1 year)	Special education Basic education New recruit educatio	QC basic course	

inance & Accounting Department

Welfare and Benefits

BAKER-KANAGAWA Japan-U.S. scholarship program

This scholarship program was set up to provide assistance for the children of Japanese employees of the Shin-Etsu Group to attend universities in the United States and for the children of American employees to attend universities in Japan. The program is the brainchild of Mr. Robert Baker, founder and the first president of Dow Chemical Japan Ltd. and a former chairman of the American Chamber of Commerce in Japan, and Mr. Chihiro Kanagawa, chairman of Shin-Etsu Chemical. Their shared idea for this program was to foster internationally active human resources and deepen exchange between Japan and the United States.

Shinkansen commuting benefits

Since 1989, Shin-Etsu has allowed commuting by Shinkansen at company expense. This option has allowed more employees to own houses and enables personnel who are reassigned to headquarters from plants and other business sites in Gunma and Fukushima prefectures to transfer jobs without changing their lifestyles. As of March 2012, 74 employees were taking advantage of this Company offer.

Taking advantage of Shinkansen commuting benefits

I am effectively using my time for work, living in the countryside, and inside Shinkansen

I decided to commute by Shinkansen when I was transferred from the Silicone Electronic Materials Research Center in Annaka, Gunma Prefecture to head office in Tokyo, partially because I already owned a house. When my work ends late at night I occasionally wish that I lived closer to work, but I do appreciate the contrasting environments.

I make full use of my private time on Shinkansen, such as by reading or using the Internet. Although there is little snow where I live in Annaka, Gunma Prefecture, there are many nearby ski resorts and it is very appealing to be able to experience the abundant nature and the four seasons. Because I live in the countryside, it is also wonderful to be able to easily obtain seasonal vegetables and fruits from nearby locations.



Tomoyoshi Tada urchasing Department

Accumulated holidays

A certain number of annual paid holidays are granted in accordance with labor regulations. If those annual paid holidays are not taken, a certain number can be treated as accumulated holidays, which are then carried over to the next year and may be utilized as family-care leave days or as days off for injury or illness. Employees may also use these holidays to volunteer in disaster areas or serve as donors for organ or bone marrow transplants.

Employee Hotline

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

Other systems

In the event of the death of a Shin-Etsu Group employee, we offer a scholarship system to support surviving children and family members.

Because the Company has group long-term accident and indemnity insurance, workers may still receive a portion of their salaries, should they be unable to work due to longterm illness or injury.

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

Labor-management Relations

Shin-Etsu Chemical holds council with the Shin-Etsu Chemical Labor Union to promote communication between labor and management. Meetings of the Central Staff Council are held approximately once a month at head office and are attended by senior management themselves, who discuss with staff subjects such as management policy, outline information about individual businesses, and the personnel system. Meanwhile, each business site holds a monthly Local Labor Meeting with the local branch of the Shin-Etsu Chemical Labor Union.

Repeated dialog and discussion between labor and management deepen mutual understanding and trust and facilitate business operations in which staff and management can come together to present speedy responses to the changing business environment.

Respect for Diversity

Promoting activities by foreign nationals, disabled persons, and the elderly

As one facet of ensuring the required human resources for engaging in global business, the Shin-Etsu Group carries out employment at overseas local subsidiaries and also makes efforts to employ foreign nationals who are studying abroad in Japan.

The entire Group is also working to proactively employ disabled persons and create environments where it is easy for them to work. Employees with disabilities are involved in a wide range of work.

We have created the Internal Re-employment Program for employees who have reached the retirement age of 60 years, which allows them to be re-employed until age 65.

Childcare and nursing care systems

The Shin-Etsu Group offers a full range of systems to support employees who give birth to and are raising children. Our childcare leave system can be used by employees until their children have reached the age of three, and many employees take advantage of the system. Meanwhile, the shorter working hours system allows employees with children up to grade three of elementary school to shorten their working hours by up to two hours a day.

As for nursing care leave, under certain conditions. employees can take up to one year of leave per eligible family member. No employees took advantage of the system in fiscal 2011.

Number of employees who have taken childcare leave (Fiscal 2011)

Shin-Etsu Chemical Co., Ltd. (non-consolidated)	9 (Male: 1; Female 8)
Consolidated companies in Japan	44 (Male: 2; Female 42)
Consolidated companies total*	107 (Male: 35; Female 72)

^{*} The length of childcare leave differs from country to country, as the program is based on local law

Taking advantage of the childcare leave system

I am supported by childcare leave, shortened work hours, and the surrounding environment. This has greatly helped me raise my two children

I recently had my second child and used childcare leave for the second time. I returned to work right after my older child turned one. However, the childcare leave system had been broadly revised since that time, so this time I ended up being out of work for nearly two years.

The time before children turn two years old is a very important period for their growth. I was able to watch over my child at close range during this period, which was irreplaceable to me. I am very grateful to all of the people at my workplace who gave me this important gift. Now that I have returned to work I am also using

the shorter working hours system. which would not be possible without the understanding and cooperation of the people in my surrounding environment. I am very thankful, and I hope to repay the favor little by little through my work.

Hiromi Ase Shin-Etsu Chemical emiconductor Materials Division

I hope that as many people as possible will take advantage of the childcare leave system, which now allows up to three years of leave

I was able to take leave very smoothly; a colleague in my workplace had obtained childcare leave about half a year before I did, so the people in my work place were aware of how to respond. This was actually my second child—when I gave birth to my first child I was very busy, but this time I feel like I had a bit of breathing room in various wavs.

I heard that it was now possible to take up to three years of childcare leave, and thought that the system had become a very ample one. I took two years of leave, but it was a very significant



two-year period in which I was also able to raise my older child (who is still quite small). This system is extremely helpful to people who are raising children, so I hope that as many people take advantage of it as possible.

Kazue Takano Fukui Environmental Analysis Center

Social Contribution

Communication with Local Communities

We maintain communication with local communities through our plants and business sites

Shin-Etsu Group companies participated in various activities to support the areas affected by the Great East Japan Earthquake of March 2011, including fund-raising activities.

Shin-Etsu Chemical head office/ Shin-Etsu Handotai head office (Japan)

Shin-Etsu Chemical and Shin-Etsu Handotai provided cooperation for the local produce market that was held in the Asahi Seimei Otemachi Building-where the Shin-Etsu Chemical head office is located-to give assistance to the affected areas. On the day of the event antenna shops1 and other shops from Fukushima, Iwate, and Miyagi Prefectures were set up in the building, specialty products were sold, and fund-raising activities were conducted.

1 Antenna shop Shops in business districts such as Tokyo and Osaka run by local governments to sell products, including local specialty products.



CIRES (Portugal)

Employees each donated the equivalent amount of one day's salary to the affected areas through the Portuguese Red Cross. Mountain bike aficionados of the company also held up a horizontal banner that read, "Don't give up, Japan" to strongly promote support for Japan to a wide



Shintech (The United States of America)

Employees participated in a softball game to support the affected areas. In addition, Shintech also provided cooperation for the charity T-shirt sales carried out by a Japanese association located near the company's Louisiana Plant. The proceeds were donated to Japanese organizations



Shin-Etsu Magnetics Philippines (Philippines)

Many employees participated in the marathon to support the affected areas that was held in Bonifacio Global City in central Manila. Each of these employees ran their own target distance while holding flags that stated, "Don't give up, Japan! Don't give up, Tohoku!"



Regional Contribution Activities

Summer school was held in FY2011 as well

The Naoetsu Plant has held an annual summer school, organized mainly by new employees, for local children in the upper grades of elementary school since 1975. The goal of this school is to have these children finish their homework earlier so they can use their summer vacation effectively.



Plant tour for local residents

A total of 55 people, including local residents and people involved with the environment in Saitama City, attended an environmental communication event held at Shin-Etsu Polymer's Tokyo Plant. After listening to explanations about the plant's disaster prevention system and efforts to reduce its environmental impact, the participants toured the plant. They also spent one hour exchanging views about topics including the plant's initiatives



http://www.shinetsu.co.jp/e/profile/communi.shtml

Local cleanup activities

All plants

All plants are making daily efforts for local beautification activities. Local cleanup activities were conducted at the Kashima Plant in June 2011, during which 20 bags of burnable and non-burnable garbage were collected.



Blood drives

All plants hold regular blood drives. Shin-Etsu Handotai employees at the Shirakawa Plant cooperate by donating blood during their breaks or in between work, and blood-drive bus was also operating at full capacity.



Painting a school building

SE Tylose (Germany) employees participated in a social contribution event that was held in the region, in which they helped paint walls and other objects inside a nearby school for children with neuroloigical difficulties.



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History of Activities

Measures taken by the Shin-Etsu Group

1926 Founded as Shin-Etsu Nitrogen Fertilizer Co., Ltd. (name changed to Shin-Etsu Chemical Co., Ltd. in 1940)

Awards in the Fields of Safety, the Environment and Industrial Health

- 2000 ISO 14001 certification obtained for all domestic production plants of Shin-Etsu Chemical
 - 2000 Installation of wastewater pretreatment system (Shin-Etsu Silicone Taiwan)
 - 2000 Final waste disposal system completed (Shin-Etsu Chemical/Gunma)
 - 2001 Waste disposal system completed (Shin-Etsu Chemical/Naoetsu) 2001 Installation of absorption refrigeration system (Shin-Etsu Chemical/Kashima)
 - 2001 Installation of thermal recovery system for distillation process (Shin-Etsu Chemical/Kashima)
 - 2002 Installation of co-generation system (Shin-Etsu Chemical/Kashima)
 - 2003 Participation at First International Conference on GSC Tokyo 2003
 - 2003 Installation of steam recycling system (Shin-Etsu Silicone Taiwan)
 - 2004 OHSAS 18001 certification obtained (Shin-Etsu Electronics [Malaysia])
 - 2005 Corporate Social Responsibility (CSR) Promotion Committee established 2005 Installation of cellulose wastewater recovery system (Shin-Etsu Chemical/Naoetsu)
 - 2005 Environmental Charter revised

 - 2005 Co-generation system further expanded (Shin-Etsu Chemical/Kashima)
 - 2006 Hydrochloric acid recovery system installed on silica production line (Shin-Etsu Chemical/Gunma)
 - 2006 Signed the Responsible Care Global Charter
 - 2006 Fuel for boiler system switched (Nagano Electronics/Chikuma)
 - 2007 SA 8000 certification obtained (Shin-Etsu Magnetics Philippines)
 - 2007 Installation of system to reduce steam usage by improvement of distillation process (Shin-Etsu Chemical/Kashima)
 - 2008 Installation of natural gas fuel conversion system (Shin-Etsu Chemical/Gunma)
 - 2008 Augmentation of wastewater biological treatment system (Shin-Etsu Chemical/Gunma)
 - 2008 Installation of thermal recovery system for distillation column (IAPAN VAM & POVAL)
 - 2008 Installation of gas turbines (Shin-Etsu Chemical/Gunma)
 - 2008 Fuel conversion of bolier (Tatsuno Chemical Industries)
 - 2008 Installation of LNG-fueled through-flow boiler (Nissin Chemical Industry)
 - 2008 Thermal recovery system installed on silica production line (Shin-Etsu Chemical/Gunma)
 - 2009 Installation of high-efficiency turbo refrigerator (Shin-Etsu Handotai/Isobe)
 - 2009 Installation of air conditioning system using process based on free cooling (Shin-Etsu Handotai/Takefu)
 - 2009 OHSAS 18001 certification obtained (Shin-Etsu Magnetics Philippines) 2009 OHSAS 18001 certification obtained (Asia Silicones Monomer)

- 2000 Fire Defense Agency Director General's Prize for superior handling of hazardous materials (Japan Vam & Poval)
- 2000 Superior Prize, Minister of Labour (Nissin Chemical Industry)
- 2000 Superior Prize, Minister of Labour (Naoetsu Electronics)
- 2000 Superior High-Pressure Gas Production Facility Award, Director of Kinki Bureau of Economy, Trade and Industry (Shin-Etsu Quartz Products/Takefu)
- 2001 Commendation for Occupational Health Activities, Minister of Health, Labour and Welfare (Shin-Etsu Quartz Products/Takefu)
- 2001 Superior High-Pressure Gas Production Facility Award, Minister for Economy, Trade and Industry (Shin-Etsu Chemical/Kashima)
- 2001 Improvement Prize, Director of Saitama Labor Bureau (Shin-Etsu Polymer/Tokyo)
- 2002 Thirty-Year Lost Time Incident-free Special Achievement Award, Japan Soda Industry Association (Shin-Etsu Chemical/Naoetsu)
- 2002 Superior Company in the Field of the Environment Award, Hsinchu County, Taiwan (Shin-Etsu Silicone Taiwan)
- 2002 Superior High-Pressure Gas Production Facility Award, Director of Kinki Bureau of Economy, Trade and Industry (Fukui Shin-Etsu Quartz)
- 2003 Superior High-Pressure Gas Production Facility Award, Director of Kanto Bureau of Economy, Trade and Industry (Kashima Vinyl Chloride Monomer)
- 2003 Achieved seven million Lost Time Incident-free hours, a 1st class Lost Time Incident-free record (Shin-Etsu Handotai/Isobe)
- 2003 5th Class Lost Time Incident-free Certificate (Naoetsu Electronics)
- 2003 Superior Facility Award, Yamaguchi Prefecture Hazardous Materials Safety Convention (Shin-Etsu Polymer/Nanyo)
- 2004 Superior Prize, Head of Saitama Labor Bureau (Shin-Etsu Polymer/Tokyo)
- 2004 Safety and Health Encouragement Prize, Head of Nagano Labour Bureau (Shinano Polymer/Hotaka)
- 2004 Bureau Director Encouragement Prize for Safety and Hygiene, Niigata Labour Bureau (Niigata Polymer)
- 2005 Excellent Safety and Hygiene Workplace Award, Minister of Health, Labour and Welfare (Shin-Etsu Chemical/Kashima)
- 2005 Good Management Program Prize of Occupational Safety and Health, Malaysian Ministry of Human Resources (S.E.H. [Shah Alam])
- 2005 Superior Prize for Safety and Health, Niigata Labour Bureau (Niigata Polymer)
- 2006 Superior Prize for Health, Director of Niigata Prefecture Labour Standards Bureau (Naoetsu Precision Engineering
- 2006 5th Class Lost Time Incident-free Certificate (Shin-Etsu Film: disaster-free record maintained to date)
- 2007 Superior Prize, Director of Nagano Labour Bureau (Nagano Electronics)
- 2007 Encouragement Prize, Director of Nagano Labor Bureau (Shinano Polymer) 2008 Superior Prize for Industrial Safety and Health, Director of Fukui Prefecture Labour
- Bureau (Fukui Shin-Etsu Quartz) 2009 Special award from Thai Ministry of Labour and Social Welfare for one million consecutive
- hours of Lost-Time Incident-free operation (Shin-Etsu Silicones [Thailand])
- 2009 High-pressure gas safety award, Minister of Economy, Trade and Industry (Shin-Etsu Handotai/Takefu)
- 2009 Superior High-Pressure Gas Production Facility Award, Minister of Economy, Trade and Industry (Kashima Vinyl Chloride Monomer)

- 2010 Fuel for boiler system switched (Nagano Electronics/Plants II and III)
 - 2010 Installation of inverter turbo refrigerator (Nagano Electronics/Plant V)
 - 2010 Participation to UN Global Compact
 - 2010 KOSHA 18000 certification obtained (Shin-Etsu Silicone Korea) 2010 Installation of oil clarification system (Shin-Etsu Silicone Taiwan)
 - 2011 OHSAS 18001 certification obtained (Shin-Etsu Magnetics Indonesia)
 - 2011 Installation of electricity demand monitoring system (Shin-Etsu Chemical/Gunma)
 - 2011 ISO 50001 certification obtained (Shin-Etsu Silicones [Thailand])
- 2010 Encouragement Prize, Director of Saitama Labor Bureau (Urawa Polymer) 2010 Committee Chairperson's Award from Committee for Promotion of Electricity
- Utilization in Seven Tohoku Prefectures (Shin-Etsu Quartz Products/Koriyama)
- 2010 Superior Prize for Environmental Preservation, Niigata Prefecture (Naoetsu Precision)
- 2010 High-Pressure Gas Safety Award, Head of Nuclear and Industrial Safety Agency (Nissin Chemical Industry)
- 2010 500,000 Lost Time Incident-free Hours Award, State of Ohio (Shin-Etsu Silicones of America)
- 2010 Occupational Excellence Achievement Award, National Safety Council (US) (Shintech)

Membership

Nippon Keidanren (Japan Business Federation) Japan Chemical Industry Association Vinvl Environmental Council

Plastic Waste Management Institute The International Friendship Exchange Council The Japan Committee for UNICEF, etc. As of March 31, 2012

st of Shin-Etsu Group companies with ISO 14001 certification http://www.shinetsu.co.jp/e/profile/kankyo.shtml

RC Audits

Responsible Care (RC) Audits

Aiming to further improve its RC activities, Shin-Etsu Chemical carries out RC audits. These audits involve the verification of all Group activities and reports by the Japan Responsible Care Council (JRCC).

RC audits are based on the Basic Safety and Environment Policy of the Japan Chemical Industry Association (amended in 2005) and the Responsible Care Codes¹. The aim of the audits is to provide an objective evaluation of RC activities

so as to improve the quality of RC activities implemented by JRCC members, and to publish information on the audit system and its results so as to enhance the credibility of RC activities and ensure accountability.

1 Responsible Care Codes: codes setting basic conditions for the implementation of Responsible Care in six areas: environmental preservation, process safety (and disaster prevention), occupational health and safety, distribution safety, chemical and product safety, and social dialog (with the public). Alongside conditions in these areas, a Management System Code to operate all the above is required.



「環境・社会報告書 2012」

第三者検証 意見書

2012年6月1日

保護化学工業株式会社 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 レスポンシブルーケア検証センター長

尚瀬純治

■報告書検証の目的

レスポンシブル・ケア報告書検証は、保軽化学工業株式会社が作成した「環境・社会報告書 2012」(以後、報告書 と略す)に記載されている、下記の事項について、化学業界の専門家であるレスポンシブル・ケア検証センターが意見 を表明することを目的としています。なお、この検証は、レスポンシブル・ケア コード及びサステナビリティ レポーテ イング ガイドライン(2006年 GRI)に導じて実施しています。

- 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)から報告される敬遠の集計方法の合理性、及び敬雄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・説明を受けることにより行いました。
- ・武生工場において、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。武士工場での調査は、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、並びに証明物件と開合することにより行いました。
- 教信及び記載情報の課責についてはサンプリング手法を適用しました。

- 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
- ・数値の算出・集計方法は、本社及び就生工場において、合理的な方法を採用しています。
- 環境パフォーマンスデータなどの収集は、表計算ソフトの統一様式で行われており、収集漏れは確実に防止され ています。なお、数値の試入力の防止のため、現在信聴グループ共通の自動収集・集計システムを構築中である とのこと、早期の完成を期待します。
- ・調査した範囲に於いて、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) 教徒以外の記載情報の正確性
- ・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。原本段階では表現の適切性あるいは文章の分かり 易さ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・ケア活動内容
- ・信蛙グループとしてRC活動を着実に実践し、その活動成果を報告書に記載していることを評価します。
- ・虚絶ゲループは地球環境に貢献する製品・技術開発に注力し、塩化ビニル樹脂、半導体シリコン、シリコーン及び 希主類離石等によって程式い分野で地球温暖化助止に貢献していることを評価します。
- ・武生工場では、労働安全衛生と保安防災に関するアンケート調査等で従業員の意見を十分に取り上げ、安全ルー ルの改定、設備の改善及び作業マニュアルの見直しと整備を行う中で安全意識の向上を図り、2007年以来無災 害を継続していることを評価します。

4) 報告書の特徴

・CSR報告書として年々報告対象組織の地加に努め、今年は依頼グループ117社の環境パフォーマンスデータを 集計し、公表しています。

RLE