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—Supporting sound forest management.

# **Corporate Social Responsibility** Report 2011



## **Sumitomo Seika Corporate Philosophy**

#### **Management Policy**

Our Group, as its basic policy, seeks to achieve co-existence and co-prosperity with society.

Engaging in the chemical field, we will contribute to the growth of society by developing original and creative technologies that conform to global standards as well as supplying unique and high quality products both domestically and internationally.

#### **Sumitomo Seika Group Charter for Business Conduct**

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We respect Sumitomo's operational rules and aim for co-existence and co-prosperity with society

2

In the chemical field, we develop original technology accepted in the world, and contribute to society by supplying high quality products both domestically and internationally.

3

We observe laws in and outside the country as well as company regulations, social rules and ethics, and act with social sound judgment.

#### **Corporate Image**

- An R&D-oriented chemical company that keeps launching highly distinctive new products in growth fields
- A highly-profitable company specializing in a niche business globally with world-class technologies
- A company that fulfills social responsibilities and inspires its employees with a sense of pride and fulfillment

#### Sumitomo's operational rules

Business Principles

- 1.Sumitomo shall achieve strength and prosperity by placing prime importance on integrity and sound management in the conduct of its business
- 2.Sumitomo shall manage its activities with foresight and flexibility in order to act in concert with the changing times. Under no circumstances, however, shall it pursue easy gains or act imprudently

# In publishing Corporate Social Responsibility Report

Our Group has been committed to Responsible Care activities for many years to ensure environmental protection, safety, and health in all phases of the product life cycle from development to disposal via production, distribution, use, and final consumption. This year, we changed the name of our RC report to CSR report, aiming to present information not only on our RC activities but also on our relations with our stakeholders, such as customers, stockholders, business partners, and local communities.

We will continue to enhance the contents of our CSR Report, thereby introducing our policy and CSR efforts to more people.

This report has been prepared in line with "Environment Report Guideline 2007" and "Environment Accounting Guideline 2005" of Japan's Ministry of Environment, and the descriptions of this report have undergone independent third-party verification by Japan Chemical Industry Association.

#### Coverage of this report

Organizations: The company's domestic bases

\*Consolidated subsidiaries are covered in corporate profile, financial data and site report \*Responsible Care performance data cover only the company's domestic bases.

Period: From April 1, 2010 to March 31, 2011

Major areas : CSR activities, and Environment and safety activities performance

Publication: Sept. 2011 (Next publication: Sept. 2012)

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# Aiming to be a highly trusted company that contributes to building a sustainable society

We extend our sincerest sympathies to all those affected by the Great East Japan Earthquake of March 11, 2011, and pray for the earliest possible recovery and re-construction. Joining in the disaster relief efforts, our company not only has made donations, but continues to do as much as we can on various fronts, including saving electricity and ensuring stable supply of our products.

Sumitomo Seika Group, as its corporate policy, seeks to achieve co-existence and co-prosperity with society and contribute to the growth of society by developing original and creative world-class technologies in the chemical field and, capitalizing on them, supplying unique and high quality products both in Japan and abroad. In our new mid-term business plan, SEIKA PLAN 2015, we have set our goal to become an R&D-oriented chemical company, a highly-profitable company engaging in a niche business globally, and a company that fulfills social responsibilities and inspires its employees with a sense of pride and fulfillment.

#### Ensuring safety-the fundamental to corporate activity

Ensuring safety is fundamental to corporate activity, and a company cannot survive without attaining safety. Following the Great East Japan Earthquake, we have asked each of our employees to review once again their respective jobs from the standpoints of operational safety and accident prevention and redouble their efforts toward making constant improvements so that we can nip any possible causes of accidents in the bud and make adequate preparations, including conducting safety drills, in anticipation of disasters that might occur at any time.

#### Supporting environmental protection

Our Group obtained the environmental ISO certification in 2004, and has constantly been making a variety of initiatives for environmental protection, built on the environmental management system. Among

other things, saving energy and reducing greenhouse gas emissions are major corporate challenges for our Group to address. We have been working vigorously to tackle these issues in particular, and continue to do so by bringing a PDCA cycle into play steadily, while at the same time strengthening efforts to adopt leading-edge technologies and further promoting process improvements. At Sumitomo Seika Group, each of the employees has a role to play, and they work together hand in hand toward realizing a low carbon society.

Our aspiration is for Sumitomo Seika to stay as a company that gains trust and confidence from everyone, working to fulfill its steadfast corporate mission of contributing to the growth of society as well as the building of a sustainable, safe and secure society through business activities. To this end, we will continue to expend unwavering endeavors to achieve "zero-accident and zero-injury operations", enhance our compliance and internal control systems, and promote fair and transparent business activities, while always placing our first priority on safety. Also, we will establish, maintain and improve a reliable quality control system capable of ensuring high product quality throughout the lifecycle of our products, from development to manufacture and delivery, thereby supplying safe and secure products to customers at home and overseas.

This report outlines some of the CSR activities that Sumitomo Seika Group is undertaking. We hope that you will find this report useful in understanding our CSR policy and ongoing concrete efforts, and we welcome any comments or opinions you may have on the report. We would greatly appreciate your continued support and cooperation.



#### Corporate Policy on Safety, Environment and Quality

Sumitomo Seika Chemicals performs activities, conforming to Sumitomo's Business Principles, with the corporate mission of contributing to the growth of society gh the supply of unique and quality products and services that draw upon the strength of the Company's innovative and advanced technologies as well as to the

- 1.To ensure safety of employees and neighboring communities through continued achievement of "zero-accident and zero-injury operations";

# **New mid-term business plan: SEIKA PLAN 2015**

We have formulated a new mid-term business plan, SEIKA PLAN 2015, and will strive to achieve the targets of the Plan successfully with untiring and concerted efforts.

#### **SEIKA PLAN 2015**

Aiming to become a global-scale specialty chemical company

 Expansion of a business scale and establishment of a solid foundation for stable earnings

#### ■ Management policy

Our Group, as its basic policy, seeks to achieve co-existence and co-prosperity with society. Engaging in the chemical field, we will contribute to the growth of society by developing original and creative technologies that conform to global standards as well as supplying unique and high quality products both domestically and internationally.

#### ■ Corporate image

- An R&D-oriented chemical company that keeps launching highly distinctive new products in growth fields
- A highly-profitable company specializing in a niche business globally with world-class technologies
- A company that fulfills social responsibilities and inspires its employees with a sense of pride and fulfillment

#### ■ Business strategy

- •Strengthening profitability through enhanced operation of high-performance product business
- $\raisebox{-0.15ex}{\raisebox{-0.15ex}{$\bullet$}} \textbf{Expanding the business scale of Super Absorbent Polymers} \\$

#### Segment policy

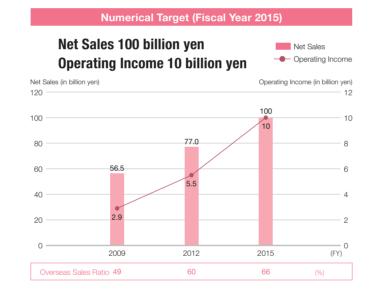
#### **Chemicals** Enhancing profitability by developing niche and high-performance products and expanding their businesses globally ■ Strengthening overseas marketing force to expand sales into global markets ■ Increasing profitability by enhancing high-performance product lines through quality differentiation Accelerating new product launch by focusing research and development resources on priority programs ■ Advancing business structure reforms **Super Absorbent Polymers** Expanding our business strategy deployment from an Asia-centered platform to a global arena ■ Increasing our production capabilities to 300,000 tons annually by end FY2015 to meet growing global demand ■ Raising the sales ratio of high-performance (high-value-added) products ■ Promoting product development by taking advantage of our SAP characteristics, while strengthening competitiveness **Gases and Engineering** Expanding the business scale with a focus on materials for electronics

Expanding the electronics gas business with a focus on NH3
 Securing stable income from matured products
 Promoting a rare gas recovery business

#### New products and new businesses

We will target net sales of new products for 15 billion yen by end FY2015 through accelerated development of new products in growth fields, such as environment / energy, daily life / amenities, and information technology / electronics materials, by capitalizing on our fundamental proprietary technologies.





## Consolidated financial results for fiscal 2010

#### **Operating results**

During the twelve months ended March 31, 2011 (fiscal 2010), Japan's economy tended to show signs of recovery, driven by increased exports to emerging economies and the favorable effects of economic policy measures implemented by the Japanese government, although concerns lingered to impede full-fledged recovery, such as continued appreciation of the yen and increases in fuel and raw material prices. These economic situations, however, have completely changed as a result of the Great East Japan Earthquake that took place on March 11, 2011.

Against this backdrop, the Sumitomo Seika Group's financial results for fiscal 2010 improved over the previous year. Net sales posted 64.672 billion yen, a 14.4% increase over a year earlier, and earnings at all levels increased with operating income by 97.5% to 5.819 billion yen, ordinary income by 89.4% to 5.18 billion yen, and net income by 85.2% to 3.232 billion yen, respectively.

#### Chemicals

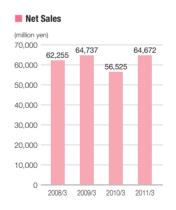
While water-soluble polymers and powdered plastics sales increased, exports of industrial chemicals and pharmaceutical intermediates from Japan remained stagnant. As a result, this division reported an operating loss of 1.442 billion yen, while net sales increased by 6.2% over a year earlier to 17.901 billion yen.

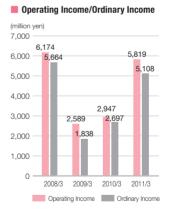
#### Super Absorbent Polymers

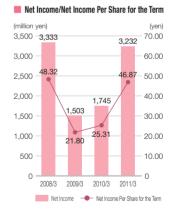
Due to steady demand mainly from the Asian market as well as to the start of operation of a new plant in August 2010, net sales increased by 24.8% to 35.243 billion yen, and operating income rose by 85.5% to 6.121 billion yen from the previous fiscal year.

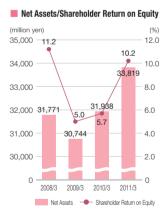
#### Gases and Engineering

While net sales of PSA gas generators decreased, demand for electronics gases stayed solid and plant capacity utilization of subsidiaries in Korea and Taiwan increased. As a result, net sales and operating income both increased over a year earlier, by 0.9% to 11.528 billion yen, and by 40.0% to 1.154 billion yen, respectively.





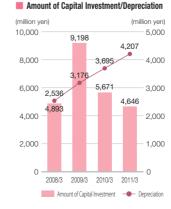


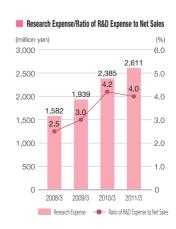




2008/3 2009/3 2010/3 2011/3

■ Total Assets/Shareholder Equity Ratio

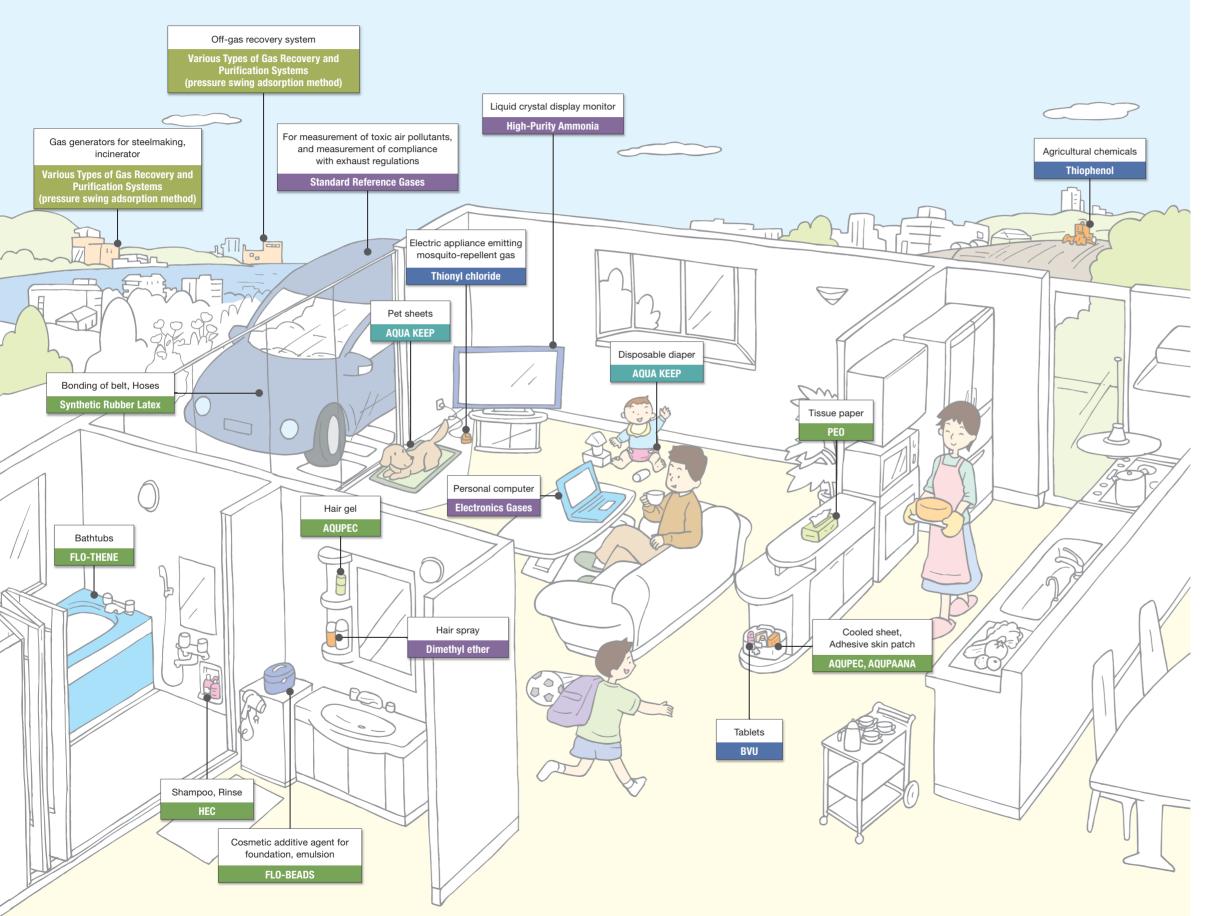




# Sumitomo Seika in daily life

Sumitomo Seika's products are well received for their outstanding functions and qualities in various applications.

The company is actively engaged in supply of products which well contribute to protection of the environment.



#### **Super Absorbent Polymers**

The Super Absorbent Polymer "AQUA KEEP", which has the ability to absorb water, is utilized for disposable diapers and industrial products. Its quality has been highly praised by our users.

Hygiene Products
 Industrial Materials
 Other Applications

#### **Functional Chemicals**

We offer a wide variety of functional chemicals, such as water-soluble polymers, water-absorbent polymers, emulsion, latex, powdered plastics, and functional materials, all of which are utilized in a number of familiar and diverse situations for a variety of reasons, such as shampoos, detergents, cosmetics, polymer coating, special adhesives, and rubber products.

■ Water-soluble Polymers
■ Water-Absorbent Polymers
■ Emulsion

■ Latex ■ Powdered Plastics ■ Functional Materials

#### Fine Chemicals

We offer fine chemicals, such as pharmaceutical intermediates and various products for the IT industry, while utilizing our flagship synthetic technology of organic sulfur compound. We also run various production facilities with a broad range of applications in order to meet user needs by flexibly managing both pilot and large-scale productions under our established quality control system.

Pharmaceutical-related Products
Various Additives

Various Industrial Chemicals

#### Gases

Sumitomo Seika's synthesis, purification, and analysis technologies for producing standard gas have been highly regarded by our users. We supply cost-competitive high-purity gases that meet every user's needs, such as semiconductor gases and industrial gases used as basic material.

Electronics Gases (Semiconductor Gases)Mixed Gases

■ Standard Gases
■ Gases for precision Industries

Medical Gases
Gases used in daily life

#### Engineering

Since our energy-saving gas generators, with a gas purification and separation system utilizing a PSA (pressure swing adsorption) method with highly efficient absorbency, have the advantage of being highly reliable and energy efficient, they are used all over the world.

PSA System PSA Gas Generator
Chemical Plant

Equipment for Electronic Industry

# **Corporate profile**

In many fields, Sumitomo Seika develops products that make your daily life more convenient and more comfortable with safety environment and quality in mind. We will strive to continue to be a chemical company that always contributes to society.

# Corporate profile Established July 20, 1944 Capital 9,698 million yen Number of employees 1,081 as consolidated as of March 31,2011

#### **Major lines of business**

Business segment	Main products		
Chemicals	Fine Chemicals (Industrial Chemicals, Pharmaceutical-related Products, etc.), Functional Chemicals (Water-soluble Polymers, Fine Particulate Polymers, and Functional Materials, etc.)		
Super Absorbent Polymers	Super Absorbent Polymers		
Gases and Engineering	Medical Gases, Chemical Gases, Standard Gases, Electronics Gases, Generators of oxygen, nitrogen and hydrogen gas (PSA method), and General Chemical machinery		

# Gases and Engineering 11.5 billion yen (18%) Chemicals 17.9 billion yen (28%) 64.6 billion yen (2011/3) Super Absorbent Polymers 35.2 billion yen (54%)

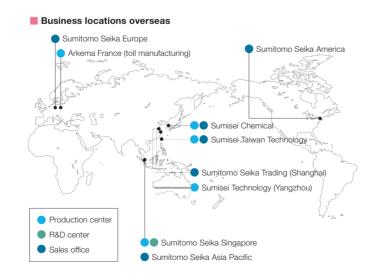
#### Business locations in Japan

Head Offices	Osaka, Tokyo	Plants	Befu Works (Hyogo), Himeji Works (Hyogo), Chiba Works	
Sales Offices	Offices Osaka, Tokyo Research Laboratories		ries Fine Chemicals Research Laboratory (Hyogo), Super Absorbent Polymers Research Laboratory (Hyogo), Functional Chemicals Research Laboratory (Hyogo), Fine Gases System Research Laboratory (Hyogo)	

#### Consolidated subsidiaries

	Corporate name	Lines of business		
Domestic	Seika Techno Services Co., Ltd.	Various services		
subsidiaries	Seika Techno Services Co., Ltd.  Seika Engineering Co., Ltd.  Seika Engineering Co., Ltd.  Manufacture of various kinds of chemical plants and tanks  Sumitomo Seika Singapore Pte. Ltd.  Sumitomo Seika Europe S.A. / N.V. (Belgium)  Sales of Super Absorbent Polymers and other chemical prospensive Sumisei Taiwan Technology Co., Ltd.  Manufacture and sales of Electronics Gases  Sumisei Chemical Co., Ltd. (Korea)  Manufacture and sales of Electronics Gases  Sumitomo Seika Asia Pacific Pte. Ltd. (Singapore)  Sales of Super Absorbent Polymers and other chemical prospensive Sales of Super Absorbent Polymers and other chemical prospensive Super Absorbent Polymers and other Chemical Polymers and Other C	Manufacture of various kinds of chemical plants and tanks		
Sumitomo Seika Singapore Pte. Ltd. Manufacture of Super Absorbent Polymers		Manufacture of Super Absorbent Polymers		
	Sumitomo Seika Europe S.A. / N.V. (Belgium)	Sales of Super Absorbent Polymers and other chemical products		
Overseas	Sumisei Taiwan Technology Co., Ltd.	Manufacture and sales of Electronics Gases		
subsidiaries	Sumisei Chemical Co., Ltd. (Korea)	Manufacture and sales of Electronics Gases		
	Sumitomo Seika Asia Pacific Pte. Ltd. (Singapore)	Sales of Super Absorbent Polymers and other chemical products		
	Sumitomo Seika America, Inc.	Sales of Super Absorbent Polymers and other chemical products		
Other	Sumitomo Seika Trading (Shanghai) Co., Ltd.	Sales of Super Absorbent Polymers, gases and other chemical products		
subsidiaries	Sumisei Technology (Yangzhou) Co., Ltd.	Manufacture of Electronics Gases		





# **CSR** management

We conduct business based on principles of the Group's charter for business conduct, in order to be a trusted company that answers to expectations and demands of a society. We continue our efforts to realize a better society while maintaining and improving our corporate philosophy.

#### Corporate governance

#### Basic stance on corporate governance

Our Group has outlined a management policy aimed at building a solid business infrastructure and contributing to social progress in response to the mandate from our stakeholders. To gain the unfailing trust of our stakeholders, we implement corporate governance aimed at quickly and properly disclosing information on the processes and results involved in carrying out efficient and fair management practices.

#### Corporate governance structure

We strengthen our corporate governance structure by separating decision-making and supervisory functions from execution functions; the directors are responsible for formulating our basic corporate policies, making strategic decisions, and supervising our operations, while the executive officers focus on carrying out business operations. We have also adopted an Executive Officer System in order to boost management efficiency and competitiveness. In addition, our directors' term of office is set at one year, which allows for greater flexibility in responding to changes in the business environment. The executive officers carry out operations in their entrusted business areas based on the Board's strategic management planning.

The Management Meeting, where the full-time directors are present, deliberate our important management issues as well as matters to be reported or submitted to the Board of Directors.

The Audit Committee exchanges information with each director on a regular basis, and appropriately monitors the legality and adequacy of directors' execution of duties.

In an effort to respond appropriately to business challenges with a commitment to the efficient and fair operations, we have the following framework: a Compliance Committee to promote compliance-oriented management, a Responsible Care Committee to promote RC activities with the objective of achieving "zero-accident and zero-injury operations", "promoting environmental protection", and "ensuring customer safety and satisfaction", and a Risk Advisory Council to promote risk management.

#### Internal control

The Board of Directors has approved a basic policy for improving our internal control system, and has declared, within and outside the company, the establishment and improvement of systems designed to ensure that the directors' execution of duty complies with laws and the company's articles of incorporation, appropriate operations are maintained, and an effective audit by Corporate Auditors is in place.

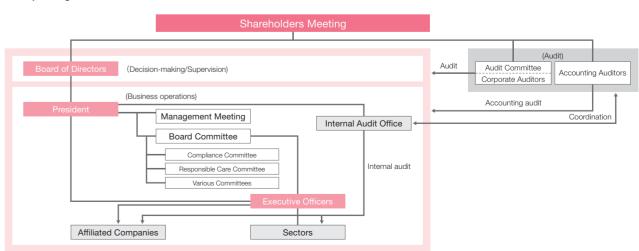
#### Internal audit

For the purpose of monitoring our group's operations, the Internal Audit Office carries out an internal audit. This self audit system helps prevent a breach of compliance and increase operational efficiency.

#### **Timely disclosure**

We seek to provide information necessary for investment decisions in a timely and appropriate manner, and will continue to promote and enhance our IR and PR activities. We have designated a department to be in charge of the IR and PR activities, seeking to promote the timely and appropriate disclosure of information and dialogue with society.

#### Corporate governance structure



#### **Responsible Care**

## **Policy and organization**

Our Group is committed to Responsible Care activities, which are to voluntarily ensure safety, environmental protection, and health in all phases of the product life cycle from development to disposal, and to maintain dialogue and communication with society.

#### Compliance

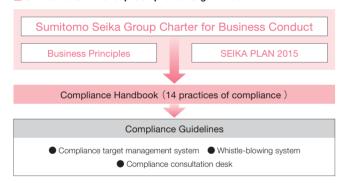
We have formulated the Sumitomo Seika Group Charter for Business Conduct, and strive to ensure all employees understand the importance of complying with the principles of the charter.

#### Sumitomo Seika Group Charter for Business Conduct

- 1. We respect Sumitomo's operational rules and aim for co-existence and co-prosperity with society.
- 2. In the chemical field, we develop original technology accepted in the world, and contribute to society by supplying high quality products both domestically and internationally.
- 3. We observe laws in and outside the country as well as company regulations, social rules and ethics, and act with social sound judgment.

Based on the Charter for Business Conduct, we set out the specific action guideline.

#### ■ Sumitomo Seika Group Compliance Organization



# Our efforts toward maintaining effective compliance management

Compliance target management system

Every year, each sector sets its own annual target of compliance focus, and ensures the compliance is in place at their respective workplaces.

#### Whistle-blowing system

We have an internal and external whistle-blowing system to help prevent a breach of compliance.

Compliance consultation desk

We have a compliance consultation desk to answer questions our employees have on issues related to compliance.

Compliance education and training

We provide various educational and training programs for employees of various positions, from entry-level personnel to newly appointed managers, to raise the level of compliance awareness among all employees, and to maintain effective compliance management.

#### Risk management

We improve our risk management system and increase the effectiveness of our risk management.

#### Risk management system

Preventive measures

We have a Risk Advisory Council to deliberate on the level of impact and severity of a possible risk, as well as its preventive measures.

The Risk Advisory Council is responsible for assessing the impact of various risks, and setting up group-wide annual targets while taking into account the priority and severity of such risks. The Council also reviews the current risk management system to improve our future risk management activities.

Emergency response

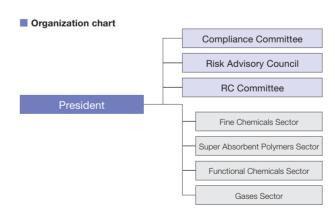
We have established a rule for setting up an emergency task force in case of emergencies in order to minimize the effect on our operations, limit the extent of damage, stabilize the situation and restore operations as quickly as possible, and to develop preventive measures. Emergencies are any unplanned events, such as incidents, accidents, natural disasters, or other situations that can cause deaths or injuries, or threaten the company's financial standing or public image.

#### **Responsible Care of Sumitomo Seika**

Sumitomo Seika has been participating in Responsible Care since 1995, which is promoted by the world's chemical industries. We, as a responsible member of society, not only comply with related laws and international rules but also voluntarily work on energy-saving, resource-saving, environment protection, disaster prevention, and many others as Responsible Care activities, and publish results of such activities, while maintaining dialog and communication with society and thereby intending to build a company more trusted by society. Safety and environmental challenges in today's business have been particularly diversified and sophisticated year after year, such as "achieving low-carbon society through the reduction of greenhouse gas", "minimizing adverse effects of chemical substances on human health and the environment" and "enhancing safety systems toward elimination of industrial disasters". We have been addressing these challenges through our RC management systems.

#### **Organization**

RC activities require major investments at times, in an effort to address such issues as climate change, safety of chemical substances and disaster prevention. Since it gives a significant impact to our business management, we have formed the RC Committee for the purpose of precisely judging rightfulness of plans and executions of our RC activities. The Committee, consisting of all the executive officers, meets twice a year to deliberate and decide on policies and plans, and to make sure that the PDCA cycle of RC activities is successfully implemented.



#### Policy

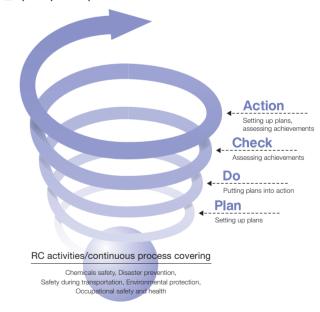
Sumitomo Seika Group has set, "Corporate Policy on Safety, Environment and Quality", with the basic principles of achieving "zero-accident and zero-injury operations", ensuring "customer satisfaction" and promoting "co-existence and co-prosperity with society", while maintaining the fundamental policy of

"Safety Comes First". Responsible Care initiatives, among others, are extremely important issues for our chemical industries in order to continue sustainable development and gain trust and confidence from society. As a responsible chemical company, we are committed to promoting Responsible Care activities.

#### **Action plan**

Our RC activities are implemented under the mid-term (three-year) action plan and the annual action plan. Specific objectives of the mid-term action plan are set out under the principle of "achieving safe and stable operation with zero-accident and zero-injury, preservation of global environment, risk management of chemical substances and contribution to society through proactive implementation of RC activities". This mid-term action plan is reflected in the annual action plan for execution. Progress of the plan is reviewed twice a year, which is reported to the RC Committee for review by executives, whereby RC activities are upgraded step by step spirally.

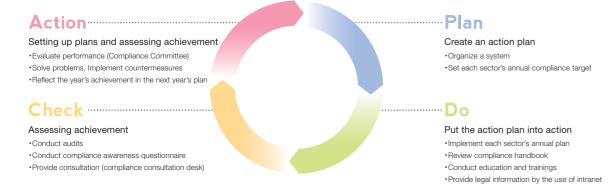
#### ■ Spiral up of Responsible Care activities



#### What is Responsible Care?

Responsible Care refers to voluntary activities by companies handling chemical substances aimed at preserving "environment, safety and health" in all phases of the product cycle from development to disposal via production, distribution, use, and final consumption, while publishing results of activities and maintaining dialogue and communication with society.

#### ■ Management cycle for compliance promotion



#### **Responsible Care**

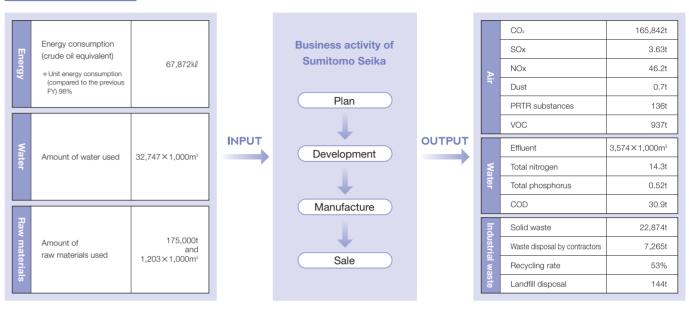
## **Activities and achievements**

Report on our 2010 RC targets and achievements, environmental burden, environmental accounting outlining costs allocated to reduce environmental load, and economic effects achieved.

٨٧٥٥	Action plans  Action plans  Action plans  Action plans  The musicular law 1. Percention under 1. Percention plans in the many and state of the musicular plans and the musicul	Doting		
Area	2010 Target	Action plans	Results	Rating
Common		activities, and thoroughgoing pointing practice 2) Promotion of 5S campaign, visualization and mechanization 3) Scheduled renewal and repair of aged facilities 4) Introduction of piping facility management system and establishment of PID (Piping and Instrument Diagram)	The total number of troubles increased from FY 2009 due to age deterioration and defective replacement for asbestos packing.  The ratio of troubles caused by human error to total troubles decreased from 34% to 25%,	$\triangle$
Compliance with law	Zero violation of law	compliance evaluation system 2) In-house education / training on laws and company regulations, and	Excess of reported targeted value:1 (Excess of NOx emissions density caused by	Δ
Occupational safety	,		Accident with without lost workday: 2 We implemented risk assessment of operations,	0
Health	private injury / disease and establishment of	Reduction in working hours by introduction of scheduled annual		0
Disaster prevention	Zero major accident	2) Safety review by third party specialists	and underwent third-party assessment.  Despite these efforts, we had one small fire accident	0
Chemicals safety	Promotion of rightful control of chemicals		Making steady progress	0
Logistics safety	Zero major accident during transportation	Training assuming an accident during transportation     (with more than 3 contractors a year)	Security education: 11 times	0
Global warming / Energy saving	energy saving  1) Unit energy consumption: 1% reduction compared to FY2009  2) Unit energy consumption in transportation:	Minimization of unit energy consumption in new process and modified process     Promotion of modal shift and transportation efficiency (switchover to rail transport)		0
Solid waste management	solid waste 1) Waste generated: Maintain FY 2006 level 2) Recycling rate: 60%	Minimization of unit waste generation in new process and	Recycling rate: 53% Final landfill disposal: 144 t/y Quantities of waste disposal by contractors decreased compared to FY2009, but final landfill disposal increased	Δ
PRTR and Volatile organic compounds (VOCs)	1) 1,3-butadiene: 1 t/y 2) 1,2-dichloroethane: 5 t/y 3) Trichloroethylene: 3 t/y	Planning and implementation of reduction in hexane emissions [VOC]	1.PRTR 1) 1,3-butadiene:9 t/y 2) 1,2-dichloroethane: 6.1 t/y	Δ
Environmental protection (air, water and soil)	Zero serious environment-related troubles	Promotion of proper treatment of soil, such as soil analysis at the time of construction work     Proper operation of effluent monitoring system and appropriate measures at the time of abnormality	Major environment-related trouble: 0	0
Disclosure of information and social contribution	Communication with stakeholders by disclosure of RC information and contribution to community	Promotion of communication with local communities and contribution to community     Acceptance of third party's verification on RC     Study on preparation of CSR Report	We conducted information exchange meetings and events, such as emergency drills, with local communities on a regular basis.	0
Quality	Zero major product quality problems, and quality assurance and improvement	Enhancement of quality control and quality assurance activities     Progress management in handling of off-spec products and follow-up	Major complaints: 0	0

#### \* Domestic Works and offices only $\bigcirc$ :target achieved $\bigcirc$ :Almost achieved $\triangle$ :To be achieved

#### 2010 environmental load



#### Environmental accounting

Sumitomo Seika introduced the environmental accounting system to quantitatively gather and evaluate data on environment-related expenses, investments and economic results, thereby taking more efficient environmental measures. Our total capital investment in FY 2010 in the area of environmental protection was 276 million yen, which was mainly invested in argon gas recovery systems, enhancement of wastewater facilities, and installation of odor elimination equipment. The calculation was made based on Environment Accounting Guideline of Ministry of Environment and Environment Accounting Guideline of Japan Chemical Industry Association.

#### **Economic effects**

We were able to reduce subcontract cost for waste disposal, owing greatly to the increased capacity of the activated sludge facility. We also achieved the reduction of VOC emissions, thereby reducing environmental load as well as purchase cost of solvents.

#### Counting for 2010

Unit: million yen

					iit. IIIiiiioii yo
Cla	ssification	of environmental cost	Major initiatives	Amount of investment	Amount of expenses
		Prevention of air pollution	Measure to control discharge of chemical substance	88	212
Business	Pollution prevention costs	Prevention of water pollution	Enhancement of effluent control Maintenance / management of effluent treatment facility	73	310
s area		Others	Prevention of odor	3	3
a costs		•	Maintenance of energy-saving devices	3	994
	Resource recycling costs		Waste disposal and recycle	0	315
	Upstream	/ Downstream costs	Product recovery, recycle	0	1
	Global environmental protection costs (global warming, energy saving)  Resource recycling costs  Upstream / Downstream costs  Administrative costs  R&D costs  Social activity cost	Costs associated with monitoring environmental load and managing operations of environment protection systems	28	190	
	ı	R&D costs	R&D for gas-recovery unit and environmental load-reducing technologies	81	290
	Soci	al activity cost	Protection of natural environment, enhancement of greenery, natural beauty, and landscape preservation	0	0
	Environmer	ntal remediation costs	Environmental remediation costs	0	0
		Total		276	2,315

Period: April 1, 2010 - March 31, 2011 Scope: Our domestic bases

Method of calculation: Investment and cost for environment protection are calculated on a prorated basis from the total amount

#### Counting for 2010

Unit: million ven

Kind	Contents	Amount
	Reduction of waste disposal cost by increased capacity of activated sludge facility	1,421
	Reduction in discharge of VOC induced reduction in purchase cost of solvents	169
Cost saving	Reduction of steam consumption by introduction of high-efficiency dryer	49
	Reduction of subcontract costs by the installation of waste sludge reduction facility	18
	Others	24
	Total	1,681

Period: April 1, 2010 - March 31, 2011

## **Prevention of global warming**

As an essential effort in ensuring sustainable development of our

## business, Sumitomo Seika is committed to reducing environmental load

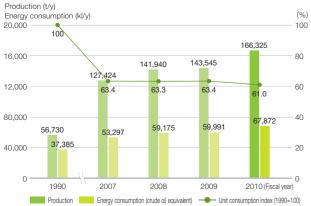
#### Addressing climate change

In our effort to address climate change issue, we have been working to reduce our unit energy consumption at least one percent every year, a standard required under energy-saving laws. As of the end of FY 2010, we achieved 39 % reduction from the 1990 level as a result of our energy-saving efforts including conversion of boiler fuel from heavy oil to city gas, introduction of energy saving devices such as high-efficiency dryer and boiler, and changeover of production methods, etc.. Our energy consumption however, increased 80% because the production increased (by 190%). In view of the expected further increase in production, we found it necessary to make a comprehensive company-wide effort to address climate change. As part of such effort and to clarify emissions reduction potential from a technical standpoint as well as to promote reduction measures through innovative technologies, we have established a new committee headed by the Executive Officer in charge of the Technical section. The new committee is named the Energy Saving Promotion Council and led by the Technical Office, which oversees company-wide facilities and technologies. The council meets every month and discusses a company-wide energy saving strategy and manages its progress.

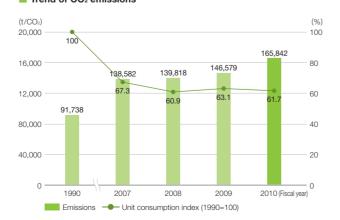
#### Greenhouse gas (GHG) reduction

In December 2009, Nippon Keidanren, to which we belong, further developed its previous initiatives to reduce CO<sub>2</sub> emissions through the Voluntary Action Plan on the Environment, and formulated a new basic policy "Nippon Keidanren's Commitment to a Low Carbon Society", aimed at achieving maximum reduction in CO2 emissions from business sectors by 2020 mainly through implementing cutting-edge technologies. In 2010, the Keidanren called upon its member companies to cooperate in this initiative.

#### ■ Trend of production volume and energy consumption



#### ■ Trend of CO₂ emissions



Sumitomo Seika pledged support to this initiative and mapped out a plan to achieve by 2020 a 20% reduction, by adopting latest technologies and based on our GHG reduction measures We have been also making efforts to reduce unit energy consumption by one percent in product logistics through means such as modal shift, change in transportation routes, and improvement in load efficiency.

#### The Great East Japan Earthquake and our energy efficiency measures

The earthquake damage to our Chiba Works was minor, but there is a compelling need for power saving, especially for the reduction of peak power usage, due to the subsequent power shortage. At Chiba Works, we aim to reduce our peak power usage by 15% through changes to work schedules and the use of private power generators. As this power shortage is feared to eventually spread nationwide, we have been promoting measures in line with energy-saving laws, such as introduction of energy saving devices.

#### Promotion of energy and resource saving

To help raise awareness about energy and resource saving among employees, we have introduced such efforts as promoting "Hyogo's Eco-Home Diagnosis Program",

encouraging use of commuter buses, and shifting company cars to electric vehicles



Introduction of electric vehicle

#### For better environment

#### **Waste reduction**

The waste reduction through effective utilization of resources is a task that should be tackled by society as a whole. We are implementing reduction of industrial waste, effective use of waste, and reduction of landfill disposal.

#### Reducing waste

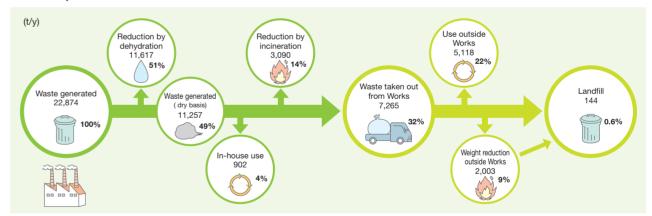
Aiming to contribute to building recycling-oriented society, Sumitomo Seika has been taking measures for reducing the amount of solid waste generated with a set target, promoting effective use of waste, and reducing landfill disposal.

Our production for FY 2010 increased to 166,000 tons, a 16% increase compared to 2009 due to expansion of facilities. As a result, the amount of waste generated increased by 2,500 tons year over year to 23,000 tons. We were able to reduce the amount of waste taken out from Works by 1,900 tons thanks to the in-house reduction efforts by dehydration and incineration; however, the amount of landfill increased by 100 tons to 144 tons. The increase was due to the change in our calculation rules; until 2010 we only counted the volume of waste we outsourced for landfill disposal, but we changed our rules in the year to include the volume of final residues put to landfill by contractors after intermediate treatment by them. When outsourcing our waste to contractors, we have always confirmed their methods and given priority to those who effectively used our waste. We will continue to implement these measures to further reduce our waste

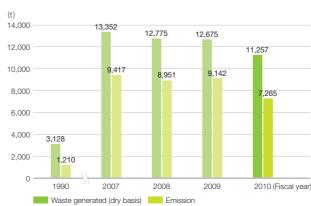
#### Reducing waste by improving formulations

We manufacture a wide variety of products using synthetic organic chemistry technologies. With such technologies, we are able to produce value-added products that can be useful in society. For the further development of our company, we are focused on the R&D of these new products. However, efforts to pursuit new functions often lead to a great amount of by-products or waste (wastewater) as a result of longer reaction process or lower reaction efficiency. This is one of the factors contributing to the upward trend of our waste amount. Taking this into account, we focus on our high waste output products and seek to reduce waste generated by those products as much as possible by improving their processes.

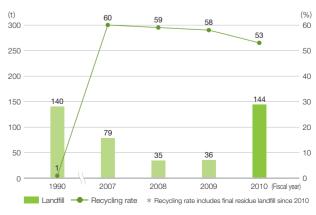
#### Waste disposal



#### Trend of waste generated



#### Trend of recycle rate and landfil



#### For better environment

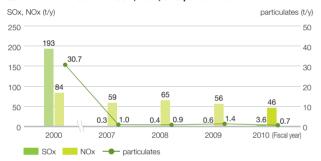
# Conservation of air and water quality

Today, there is a growing need to improve our natural environment for better biodiversity. Protecting air and water quality is essential in creating a rich environment. Sumitomo Seika continues to make efforts to reduce our environmental load.

#### **Preventing air pollution**

We have managed to reduce SOx, NOx and particulates, the three major air-polluting substances, drastically in the past ten years by switching boiler fuel from heavy oil to city gas. Currently, we are striving to reduce emission of PRTR (Pollutant Release and Transfer Register) substances and volatile organic compounds (VOC). Emission of PRTR substances increased to 135.7 tons because hexane was newly listed under the Law in 2010. Our efforts to reduce VOCs emission by sealing of equipment and introduction of waste gas incineration resulted in a reduction from the previous year, but that was 21 tons due to the increased production of products.

#### ■ Trend of emission of SOx, NOx, and particulates

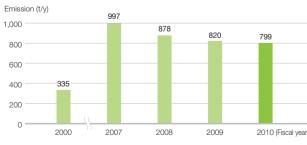


#### ■ Trend of emission of PRTR substances

			,	Offic. Quartiti	y emitted(t/y)
	1995	2007	2008	2009	2010
1,3-butadiene	2.8	7.7	5.8	5.8	9.0
1,2-dichloroethane	72	5.3	6.1	3.9	6.1
Trichloroethylene	70	5.6	4.1	5.7	5.4
Hexane	-	-	-	-	102.4
Dichloromethane	69.6	2.4	1.4	1.8	1.9
Others	21.6	15.3	11.9	10.0	10.9
Total	236	36.3	29.3	27.2	135.7

\* Hexane is included since FY2010

#### ■ VOC emission (four priority substances)



st Four priority substances (heptane, pentane, methanol, MIBK

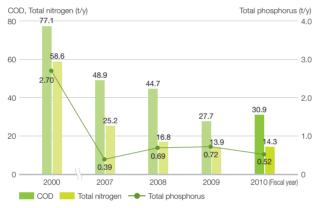
#### [Future efforts]

Based on our three year plan for 2013, we have implemented reduction measures with a focus on the following substances: 1) hexane, newly listed PRTR substance, and 2) heptane and pentane, VOC substances that are emitted at high levels.

#### **Protecting water quality**

Our water discharge is controlled with internal standards more stringent than legal regulations. This is made possible by the installment of emergency shut-off equipment, and enhancement of both monitoring instruments and effluent treatment facilities. Befu Works and Himeji Works face Seto Inland Sea, a closed water area, and are subject to strict water discharge regulations. Last year, we successfully met the total amount of regulatory requirements with 30.9 ton emission of COD, 14.3 ton emission of nitrogen, and 0.52 ton emission of phosphorus. We continue our efforts to further reduce our water discharge.

#### Trend of water contamination load



#### [GENBA Interview] No.2 Manufacturing Section, Himeji Works Kenichiro Has

#### Our efforts for VOC reduction

In the No. 2 Manufacturing Section, we use a large amount of VOCs in the manufacturing processes. We have been implementing voluntarily actions to reduce VOC release to the air, such as installment of a VOC recovery unit and reinforcement of ground-sealing of rotating machines, and achieved some positive results. However, as I came to see an increasing environmental awareness among our customers and local communities during plant tours and in customer surveys, I realized afresh the importance of redoubling our emission-reduction efforts. Further reduction of VOC will be a tough task. We, as a manufacturing team, will continue to strive together for the further reduction of VOC emission through process improvements and other measures.



#### For better environment

# DBJ environmental rating / On DBJ's environmental rating

We have received the highest environmental ratings from DBJ (Development Bank of Japan), and obtained a loan based on the rating. DBJ's environmental ratings system is the loan program to evaluate companies on the level of their environmental management and apply interest rates depending on their scores.

#### On Sumitomo Seika's environmental rating

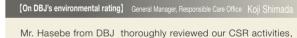
With a growing need for CSR (Corporate Social Responsibility), companies today face an urgent necessity to address many challenges in the area of not only global environmental issues, but also compliance (with laws and regulations), and safety. In financial markets, however, we had no tool to incorporate such corporate efforts in non-financial information. DBJ developed a new financing system, DBJ environmental ratings, to evaluate these corporate efforts objectively, and began its use in 2004. In March 2011, we evaluated Sumitomo Seika's approach to environment based on the DBJ environmental ratings with a focus on: 1) the level of environmental management including compliance with laws and regulations, 2) development of environmental efforts through business activities, and 3) efforts for the reduction of environmental load. As a result, in addition to the company's measures for water and air conservation, we highly evaluated its comprehensive and consistent environmental efforts including the introduction of third-party safety verification, and gave the company the highest rating. Also, successful

development of innovative technologies, such as the SR technology which significantly reduces waste generation and the argon gas recovery technology, is particularly noteworthy about the company's environmental efforts.

On the other hand, although the company has formulated a strategy based on the "Nippon Keidanren's Commitment to a Low Carbon Society", we have recognized that the efforts in the area of GHG are still in an early stage. Also, there is an accelerated movement for an enhanced safety management of chemical substances. We will keep a close eye on the company's future response to those challenges. We hope that the company will steadily address these challenges and further promote its environmental management.







evaluated them, and provided some valuable comments on our environmental approach. In recent years, Sumitomo Seika has been making vigorous environmental investments to reduce environmental load and to prevent environmental pollution by equipment failure. We are truly honored to have our efforts recognized as "highly advanced", however, as pointed out in the evaluation, we need to work harder on reducing GHG and waste generation. We regard these issues as an important part of our essential tasks. We will strive to contribute to creating a sustainable society while achieving a harmonious balance between business growth and environmental responsibility.



Presentation of the environment rating certificate to Ueda, President of Sumitomo Seika by Mr. Maeda Managing Executive Officer of DBJ

In March 2011, Sumitomo Seika's pro-environment approach was rated highly advanced by DBJ.





#### **Approach to safety**

# Security and disaster prevention

Placing "Safety Comes First" as a fundamental principle of our corporate management, we are committed to promoting our voluntary security programs under our Responsible Care initiatives.

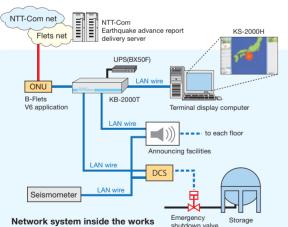
#### Readiness for earthquake

Our earthquake disaster countermeasures were prepared based on the lessons learnt from the Great Hanshin Earthquake in 1995, and we have so far carried out 1) replacement and maintenance of aged facilities, 2) establishment of emergency shut-off system, and 3) seismic assessment of tanks, etc..

In chemical facilities, it is particularly important to safely shut down operations in case of emergencies to limit the extent of damage. We have installed seismic intensity meters at our Works and launched the "Emergency Earthquake Alert System" which is designed to catch the signals of an emergency earthquake alert issued by the Japan Meteorological Agency. Upon catching such signals, the system will automatically activate the emergency shut-off valves and warn the employees through the PA system to ensure their safety. Also, we tested the seismic strength of selected tanks, and found that they withstand Level-Two Earthquake Ground Motion (the Great Hanshin Earthquake level).

Following the Great East Japan Earthquake which triggered unanticipated level of tsunami, Hyogo prefecture has started reviewing the current disaster prevention plan. In line with such move, we will also review our risk and disaster prevention management systems, and accelerate our efforts to improve health and life of people in the community.

#### Outline of Emergency Earthquake Alert System



#### Aging facilities maintenance

As a chemical company, we handle many hazardous materials, and facilities handling chemical substances inevitably suffer from fatigue/degradation and corrosion development after years of continued use. Thus, proper maintenance of facilities is a critical issue in maintaining safe and stable operations.

Concerns increase especially over threats of Tonankai

Earthquake and other natural disasters, and we need to speed up the implementation of proper evaluation and management system for facility risks. To this end, for each production facility, we have established 1) a facilities management system which collects and manages the maintenance and repair records of machinery and equipment in an integrated fashion, and 2) an evaluation system which identifies the probability and level of potential equipment damage. In this way, we have accurate and up-to-date understanding of breakdown histories and the conditions of machinery and equipment, use such understanding to predict "probability of damage occurrence and potential impact", and accordingly formulate and execute preventive maintenance programs.

#### [GENBA interview] Manager, Befu Maintenance Section Makoto Maeda

The Maintenance Section of Befu Works is responsible for the maintenance of all the equipment and facilities in Befu Works. Befu Works consists mostly of equipment and facilities for treating hazardous materials and high pressure gases. They are characterized by long-lasting equipment and facilities which prudentially require well-planned maintenances and regular inspections. On the other hand, we have to achieve dual objectives, at the same time, of reduction of risks for accidents as well as cost savings for maintenances and inspections. For this reason, we have constructed a maintenance plan in accordance with a newly introduced methodology with which all the equipment and facilities are quantitatively re-evaluated by scale of measurement for risk of each equipment and facility and impact of accidents and accordingly leading to an order of priority and inspection of the current equipment and facilities. By implementing these new ideas, we strongly feel that our ability of maintenance has much improved. For example, we used to rely simply on experiences and intuitions in the past and now leaped to the point where we could find out such damage of equipment as would not have been detected by our past knowledge and experience. However, we have not reached the point where a sudden failure of equipment and facilities never takes place so that we have been continuously making utmost efforts to have a safe and stable operation of the plant together with efforts of

Manufacturing Section to improve their daily maintenance capability for controlling the equipment and facilities.



#### Major measures for disaster prevention in 2010

Every year, we set action assignments for disaster prevention measures both in "hardware" (tangible facilities and equipment) and "software" (intangible human and information factors), and work to improve our management level.

In 2010, we have implemented the following measures:

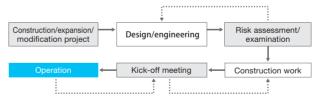
Scheduled renewal and repair of aged facilities
 Introduction of piping facility management system and establishment of PID (Piping and Instrument Diagram)
 Steady implementation of design review on new constructions and modifications of facilities
 Thorough implementation of risk assessment of production process at existing facilities as well as safety review on new constructions and modifications of facilities.
 Improvement of infrastructures in Works (explosion protection of communication equipment, and visitor management system)
 Emergency drills
 Safety review by third party specialists

#### **Facilities safety evaluation**

Our existing facilities that are considered to be of high-risk will be re-evaluated by the end of fiscal 2012.

Enhancement of facilities safety assessment	We are implementing steady design review based upon the newest technologies in the construction of new facilities.
Safety review on new constructions and modifications of facilities	Based on our Facilities Design Management Standards, we perform safety check by conducting  1) safety review (by the use of HAZOP method, a method to identify and evaluate risks in case there are any deviations from design specifications, and decide on countermeasures), and  2) kick-off meetings (final safety checkup before commercial operation)
Safety evaluation on existing facilities	Managers from design, manufacture, maintenance and safety sections all gather in a meeting to perform safety evaluation on existing facilities by the use of HAZOP method to make sure there are no deviations from the original design specifications.

#### Facilities risk assessment flow



#### Efforts for human error elimination

Approximately 50% of incidents in hazardous materials facilities were facilities accidents which were mainly due to aging of facilities, and the second cause of incidents was human errors, according to a report released in 2010 by the Fire and Disaster Management Agency, and it is no exception at Sumitomo Seika. For the last few years, about half of the troubles have been caused by human errors, i.e. incorrect operation and faulty judgment (52% in FY2008). Thus, we have redoubled our

company-wide efforts and took such measures as 1) visual control of equipment (Labeling, etc.), 2) improvement and automation through risk assessment, and 3) KY (risk prediction) and pointing/calling campaign. As a result, the ratio of human error incidents has declined steadily, and in 2010, we succeeded in keeping it as low as 25%.

# Emergency drill to enhance our preparedness

Although we are fully committed to maintaining safe operations, we had one accident (minor gas accident) at our Chiba Works in 2010. The fire was small enough to be extinguished by ourselves, but we needed to call in the fire department. The cause of this accident is attributed to a lack of safety measures at the time of facilities expansion and careless practice under routine operations.

We need to enhance our emergency preparedness to limit the extent of damage in case of emergencies.

In our Himeji and Befu Works, which are both subject to the "Act for the Prevention of Disasters at Petrochemical Complexes, etc.", particular efforts are exerted to strengthen our preparedness. Such efforts include periodic emergency drills pursuant to the company's in-house emergency response regime (nighttime drill, holiday drill, etc.), joint fire drills with the fire department, and joint exercises with local communities in accordance with the respective "community disaster prevention agreements".



Emergency drill (building up sandbags)



Emergency drill (coordination with fire department)

#### **Approach for safety**

## Occupational safety and health

Ensuring safety is fundamental to corporate activity, and a company cannot survive without attaining safety. Creating safe and secure working environment is our goal, and we strive to attain transition from "zero-accident" to "zero-risk".

#### Our efforts for zero occupational accidents

We have been continuing operations without accidents involving lost workdays for the past ten years except for one accident that took place in 2005. However, we still have accidents involving no lost workdays, and have not been able to eradicate them.

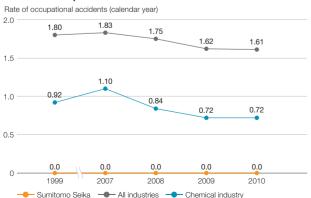
No matter how advanced facilities are, they are never absolutely safe. When there are people involved, there is always room for error.

We believe that the occupational safety can be compromised when 1) operations become routine and tedious, 2) safety activities become merely a formality and lose their intended meanings, 3) an increase in the number of employees who have not experienced serious accidents leads to a lack of adequate safety awareness 4) know-how is not adequately transferred from experienced employees due to their retirement, etc., 5) there is a change in personnel, facilities and management procedures.

With this in mind, we have been implementing the following measures to enhance our safety culture:

Back to basics	1) 5S to create well organized workplaces 2) A campaign to encourage friendly greetings to improve internal communications 3) Pointing and calling to increase employee attentiveness 4) Visualization of facilities (labeling, etc.)
Preventive measures	Inplement measures to ensure facilities have intrinsically safe design and to mechanize operations     Conduct investigations to determine the cause through accident / near-miss incident reports, develop preventive measures and ensure the information is shared
Trainings and education	1) Safety and technical training at each level (new employees, leaders, and managers) 2) Security and disaster prevention trainings: static, process safety (managerial staff) 3) Simulation training (falling, being stuck between or caught into machinery, distributor explosion, etc.) 4) Accident workshops (case study for managers, etc.)
Proactive safety control	Use Occupational Safety and Health Management System (PDCA cycle)
Staying a step ahead in safety	Perform risk assessment     (Identify potential risk factors and develop countermeasures)

#### Rate of occupational accidents



\*Sumitomo Seika had no industrial accidents during the indicated period

# Sumitomo Seika Initiative wins Minister of Health, Labor and Welfare Prize in FY2010

Our Himeji Works won the Minister of Health, Labor and Welfare Prize for its occupational safety and health efforts in FY 2010. After the nomination, we underwent a thorough judging process which included examination of documents based on preliminary surveys and on-site review. As a result, we were highly rated not only for our outstanding safety records but also for our effective and efficient safety management. We have also received an award from the Mayor of Himeji City for our management of hazardous facilities.



Award ceremony of Minister of Health, Labor and Welfare Prize (OSI

#### Recent awards

July 25, 2007	Disaster prevention	Nuclear and Industrial Safety Agency Award	Chiba Works
Oct. 2, 2007	Disaster prevention	Chiba Labor Standard Association Award	Chiba Works
Jan.10, 2010	Community disaster prevention	Shirasagi Disaster Prevention Award	Himeji Works
June 4, 2010	Hazardous Materials Safety	Himeji City Mayor Award (management of hazardous facilities)	Himeji Works
July 1, 2010	Safety and health	Minister of Health, Labor and Welfare Prize (OSH)	Himeji Works



#### **Approach to safety**

# Third-party appraisal / Third-party appraisal report

Over the past years, we have been taking steps to bring our safety and security/disaster prevention standard to a still higher level. Last year, we invited the Kinki Chemical Society, Japan for appraisal of our safety management system and recommendations for its improvements in light of the advanced chemical processes and techniques.

#### The 2010 third-party appraisal

In 2010, we were requested by Sumitomo Seika to make a third party appraisal of the Company's process safety management systems. We formed a 5-man team and inspected Befu Works, Himeji Works and Fine Chemicals Research Laboratory, which was followed by hearings and discussions about their activities. The Company was found to be totally devoted to structuring safety systems mainly by carrying out extensive RC activities. We can say that their plants are operated based on CSR recognition, calling for "co-existence with community" and "safe and stable production activities".

"Process safety and accident prevention" is secured through ex-ante and ex-post validations of each process. The Company has a long history of technological improvements and process validations. Challenge facing the Company is to refine and level up safety and preventive measures at Befu Works, where there are much more high-pressure and/or odorous gases compared with other chemical plants. We believe that there is need for risk assessment of ancillary facilities by utilizing HAZOP or other methods, in view of the fact that recent incidents took place in facilities apart from the main processes, such as waste gas treatment facilities and waste water tanks.

"Occupational Safety and Health" is pursued by conducting a

risk assessment program based on OSHMS, and this has resulted in an increased number of risk predictions. More than 2000 cases of hazard/risk prediction activities have been reported, which prevents hazards and risks from happening and advances the program. Predicted problems are surely followed up for improvement to gain employees' confidence. At the peak of generational change, a multiple approach is taken to educate newly recruited; plants are automatically controlled yet should be operated based on full understanding of processes. To achieve this, plant engineers and operators should be educated on technical skills and expertise which need to be inherited from generation to generation.

Based on proprietary technologies, each Works has established its own specialized field, which is highly regarded by the industry. We hope that the Company will construct a stronger safety/prevention system to ensure further business development in the years to come.

Mr. Toshio Tamura Chemical Technology Advisor The Kinki Chemical Society, Japan





nspection



Discussions

#### [Third-party appraisal report] General Manager, Safety and Environment Dept., Befu Works Hirokazu Kagar

Mr. Tamura and his colleagues, once engaged in chemical operations at leading manufacturers, all possess accumulated knowledge and experience. The inspection was conducted from the safety engineering point of view to appraise our plant design, operation, technical information and others in the past. While recognizing our efforts which resulted in apparent reduction in the number of troubles, thrusts in 5S Circle Activity and risk management, they pointed out that the scope of our hazard/risk search must be broadened, because one of our weak points was actualized in the three troubles we had in 2010. In Befu Works, where high-pressure and highly hazardous gasses are used, a

higher level of risk management is required than in ordinary chemical plants, given the fact that troubles occurred not only in the main processes but in the ancillary facilities for waste gas treatment and waste water storage. We will strive for a higher level of plant safety by improving hardwares and educating personnel utilizing HAZOP and risk assessment skills.

#### Approach to safety

## **Logistics safety / Chemicals safety**

We are positively engaged in various activities to ensure safety in safe and proper handling of chemical products.

# manufacturing process and physical distribution. We also supply customers with safety data of our products in order to promote

#### **Logistics safety assurance**

Our products consist of many substances including high-pressure gases, hazardous and poisonous chemicals. Accidents during products transportation may seriously affect the environment and community safety. For us, logistics safety is as sensitive as safety in production.

Product logistics is carried out by logistics contractors, whose cooperation is indispensable for safety in transportation.

Thus, to secure collaborations with logistics contractors, we have organized the Logistics Safety and Environment Council jointly with our logistics contractors.

#### **Logistics safety and Environment Council**

We invite our logistics contractors of hazardous materials to the annual meeting of Logistics Safety and Environment Council, listen to their presentation of annual safety programs and discuss with them to share common understanding.

To deepen understanding on transportation of our products, we have worked out an educational program comprising "Transportation and Handling Policy: Physical properties & Handling information", "Emergency measures guidelines" and "Yellow card compiling emergency measures".

#### **Drills to enhance our preparedness**

Extensive drills are periodically conducted to respond speedily and adequately to different emergencies by ourselves, or jointly with logistics companies as the case may be, to tackle hypothetically with leaks, fire and notification.



#### **Chemicals safety**

In view of expanding transportation of chemicals in the world, the United Nations recommends adoption and putting-into-practice of GHS as ways and means to accurately communicate the nature (including hazardous and toxic properties) of chemicals. Failure to properly control chemical substances or to provide information required by GHS may give serious adverse effects on human health and environment.

In Japan, the Industrial Health and Safety Law was revised in 2006, under which information submission pursuant to GHS is required. Outside of Japan, legislation has been or is being introduced that requires to submit MSDS (Materials Safety Data Sheets) and Warning Labels in local languages.

In EU countries, in particular, CLP Rules issued in 2008 require each chemical producer to notify hazardous and toxic substances in addition to submission of the said MSDS and Warning Labels, effective 2010.

To have our products handled safely, we have been collecting information on hazardous and toxic chemicals as described in our MSDS and Warning Labels, and in 2010 we notified our CLP Rules and started supplying our customers with information requested by the international classification and indication rules through our MSDS and Warning Labels in local languages.

GHS: Globally Harmonized System for Classification and Indication of Chemicals CLP Rules: EU Classification, Labelling and Packaging of substances and mixtures



#### **Approach to safety**

# **Quality assurance**

We endeavor to supply our customers with products and services of reliable and satisfying quality by making continuing efforts to improve our total quality assurance system.

#### Corporate quality assurance system

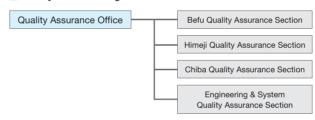
We have made all-out effort to establish a total quality assurance system and obtained an approval of ISO 9001, an international quality assurance scheme. In 2002, all ISO 9001 approvals obtained by our individual Works were integrated into a single corporate system, which oversees from a customers' standpoint all our quality assurance activities involving those of R&D, production, logistics and marketing groups.

In 2010, we restructured our "quality information data base" with a view to responding more quickly to quality information such as complaints and non-conformance and to sharing information horizontally and vertically.

#### **Quality Assurance Office**

We perform cross-cutting quality assurance activities through Quality Assurance Office and subordinate quality assurance sections at the production level.

#### Quality assurance organization



Quality Assurance Office holds a monthly Quality Assurance Office liaison meeting every month, whereby principles on quality assurance matters are decided and systematic implementation of quality assurance activities at the workplace level are discussed or coordinated. At Monthly Quality Review Meeting, complaints actually raised are shared and discussed. Monthly reports are presented to middle and top managements so that recurrence be prevented and QA system be reinforced.

QA Section at each Works holds a monthly "Quality Conference" to investigate and discuss complaints, to share information and to prevent recurrence of quality problems.

#### **Audit / Inspection**

To maintain and improve our quality assurance system, internal auditors staffed at worksites conduct regular mutual audits.

Apart from the above, Quality Assurance Office makes on-site audits of manufacturing units of all works of the group (in Japan and abroad). On-site QA audits from cross-sectional standpoint make for improved QA activities and increased customer

For important raw materials, supplier audit is periodically conducted to build up a QA system focusing on supply chain.





Befu Works quality audi

#### **Commitment to society**

# Growing together with customers and suppliers

With the view to delivering satisfaction and reliability to our valued customers, we are committed to providing information necessary for safe handling of our products.

#### Helping customers use our products safely

Chemical substances that have been in use for decades and centuries have not been challenged, in large part, of their full actions and impacts on human health and natural environment. Now that adverse effects of certain chemicals have become apparent, countries around the world have begun to work together in promoting scientific evaluation and sharing information on the safety of chemical substances.

Based on our business principle of providing our customers with "products that meet their expectations" and "products that they can use without unwarranted concern," we are actively engaged in the global chemicals safety initiatives according to a clearly defined priority list.

#### **Building mutual trust with customers**

Our European sales subsidiary Sumitomo Seika Europe S.A./N.V. located in Brussels, Belgium is responsible for improving our service to customers in Europe as well as for monitoring the evolution of European chemicals management regulations.

The European Union Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) went into effect in 2008 aiming to minimize adverse impact of chemicals on human health and the environment. Europe is leading the world in terms of regulatory regimes for the environment and safety.

Our products have been chosen and appreciated by customers on the basis of their evaluation of product performances. The globally emerging trend calls on us, the seller, to demonstrate that the product is safe and can be used reliably. The REACH specifically requires that the use conditions of chemical product on customer's part should be understood and that the product safety under the use conditions should be verified.

Registration with the European Chemicals Agency of chemicals produced or sold in EU in excess of 1,000 tons per year began in 2010. Our efforts in the year were focused on:

- Collection of customer-held information as required for registration
- 2. Reporting to European Chemical Agency of the hazard classification of products (CLP Rules)
- 3. Proper safety labeling and provision of Safety Data Sheet to customers

These efforts do not bring successful results without close information exchange with our customers. In 2010 we visited them and as the first step exchanged views on the interpretation of the new EU regulations. We are continuing working with them to duly comply with the regulations.



Efforts continue at the front line to deliver our commitment to customers in Europe

#### **Cooperation by suppliers**

Demand for product safety is becoming increasingly high in recent years. The European regulations on inclusion of hazardous chemical substances have been tightened, making it necessary for chemical producers like ours to step up efforts in ensuring green purchasing through analysis and warranty. More broadly, supplier's cooperation is indispensible for our performance of social responsibility in providing our customers with safe and trustable products. To respond to these challenges speedily and adequately, we are deepening cooperation with our suppliers and promoting stable procurement, while maintaining our basic purchasing policy of due supplier evaluation and fair and transparent transactions.

#### [Purchasing policy]

Fair and equitable transactions

- Compliance with laws related to purchasing
- •Conduct transparent and fair trade on equal footing

Quality, delivery period, service, stable supply

- ·Choice of materials and products of dependable quality
- Supplier selection based on stable supply possibility
   Partnership spirit
- ·Build up mutual trust with suppliers
- •Contingency plans to avoid risk from interrupted supply

Appropriate access to environmental information and data and evaluation

- Receive safety information and data on supplied materials/products to ensure our products meet customers' safety expectations; evaluate suppliers from this standpoint
- •To contribute to conservation of global environment, seek suppliers' cooperation for our efforts in quantifying and reducing environmental load throughout the product life cycle of development, manufacture, distribution, use, final consumption through disposal

#### **Commitment to society**

# Growing together with the community

We at every operation sites are engaged in information disclosure to and communication with the respective local communities with the view to increasing their understanding of our business activities and building and maintaining good relations.

#### **Community beautification and cleanup**

Our Works actively take part in the local campaigns for community beautification through periodical cleanup of nearby roads and roadside ditches.



Community cleanup campaig

#### Community outreach

In line with the principles of information disclosure and communication with local community, we invite our host residents to our fire and disaster prevention drills and organize plant tours for local students and teachers. We use these opportunities to outline our safety and environment protection initiatives and to listen to their opinions and proposals.



Residents take firsthand look at our drill

#### **Himeji Environment Festival**

Starting in 2001 we have been a sponsor of Himeji Environment Festival, an annual event organized by the City of Himeji. Sumitomo Seika booth in 2010 was again visited by many citizens, young and old, who enjoyed a variety of "fun and learn" programs such as coloring books, painting porcelain cups and zigzag paper folding, all with environment protection motifs.



limeji Environment Festival

#### Parking lot greening

As a part of our efforts to make Himeji Works greener, an asphalt parking space for 56 passenger cars has been turned into grass-covered. In addition to the direct effects of improved scenic beauty and environmental awareness, the project is intended to help alleviate the heat island problem, prevent reflection and global warming.



Grass parking spa

#### **Commitment to society**

# Growing together with shareholders and investors

We disclose necessary company information accurately and in a timely manner to our stockholders, investors and other stakeholders.

#### **IR Policy**

To disclose investor relations (IR) information accurately and in a timely manner is of principal importance to Sumitomo Seika. In so doing, we comply with the pertinent laws and Stock Exchange regulations and make an effort to include information and presentations designed to help increase understanding about our company.

#### Information disclosure channels

Our basis approach is to make the disclosure in a just, timely and fair manner. It is made through the "TDnet" (Timely Disclosure network) provided by Tokyo Stock Exchange and through mass media (press clubs and others).

#### Investors Information webpage

Financial results, financial forecasts, shareholders meeting information and other investors information are available on our official website. We will continue to work to improve the webpage disclosure.



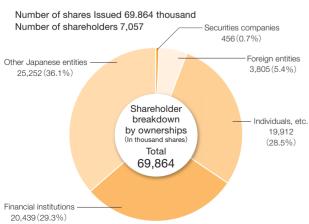
Investors Information webpage

# Communication with stockholders and investors

#### Stockholders Meeting

We regard stockholders meeting as a major opportunity to provide our stockholders with fair and accurate information and listen to their opinions. We strive to make our reports easier to understand. Sumitomo Seika stockholders can cast their vote through the Internet, if they so wish.

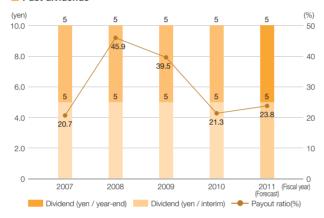
#### Share information (as of March 31, 2011)



#### Dividend policy

Our basic policy is to distribute dividends stably to our stockholders, according to the income situation. A portion of the earnings is retained to upgrade production facilities, improve cost-competitiveness and intensify research and development so as to ensure sustained growth of the company.

#### Past dividends



#### Investors' meeting

Investors' meeting with analysts, institutional investors and others are held on a periodical basis (twice a year). In addition to financial results, our management policy, progress of our business plan are reported and discussed to improve communication.



Investors' meeting

#### Measures to prevent insider trading

Sumitomo Seika Group is committed to preventing insider trading by all means to ensure healthy functioning of the stock market. Our internal rules require all employees to take prescribed steps in their trading of Sumitomo Seika shares in order to prevent suspicions of any unlawful acts.

#### **Commitment to society**

# Growing together with employees

In order for a company to attain a sustainable growth, upgrading of its employees is indispensable. Our company works on nurture of "human resources" while viewing "human" as "resource" and takes various actions to build labor environments where employees are able to work comfortably and peacefully.

#### Ideal human resources

When unique individuals get together in a company, a vibrant corporate culture will be created, where several originalities come into being. In order for Sumitomo Seika, which places its future on "power" of chemistry", to continue developing its originalities, its employees are required to have the following three capabilities:

#### Ideal human resources

#### 1. Have objectives and targets

They should have their own objectives and targets, and they should struggle to achieve them aggressively and constructively.

#### 2.Comprehend trend of the times

Employees are encouraged to comprehend trend of the times which show quick changes in society and economy.

#### 3. Know the world

Employees should be professionals who are well aware of the world.

#### An outline of the personnel system

The company has introduced a personnel system where employees are motivated to work for the company through achievement-oriented evaluations with their respective roles as the base of the system. This merit system is designed to prompt employees to improve their abilities at their own initiatives with clear recognition of their functions and roles.

Under this system, employees are induced to clearly understand their roles which they play in their organizations and motivated to attain their goals, which leads to better performance of their respective workplaces and in turn the company itself as well as to increased sense of satisfaction and progress for each individual employee.

#### **Human resource development program**

For the purpose of assisting ability development of employees, various programs are provided, which can be categorized mainly in the following five kinds:



The company appoints veteran employees who have rich knowledge and experience as instructors to transfer technology and skill to young employees and train them to become full-fledged members in a shortest possible time.

#### **Technology education**

Financial aid for participation in correspondence education

Financial aid for acquisition of public qualification, etc

- O Technology education for new employees
- O Technology education; basic course
- O Technology education; application course

In addition, in order to achieve "SEIKA PLAN 2015", not only globalization of the company but also globalization of employees is required. Efforts are exerted to provide employees with opportunities to learn various foreign languages so that they can develop abilities up to those of world-class professionals.

#### Foreign language education program

- TOEIC test inside the company
- O Private lesson of English conversation
- Group lesson of English conversation (presentation, conference)
- $\bigcirc$  Group lesson of Chinese language

#### [Attending a group lesson of English conversation] Physical Distribution and Procurement Dept. Aya Yoshimoto



I handle procurement of packaging materials. I sometimes use English in routine work such as price negotiation, delivery scheduling and similar things with my overseas counterparts. I attend the company's group lesson of English conversation to acquire skills for smooth communication with foreign partners in my current job. This language course is intended for employees to learn not only conversations but also professional skills for presentation and conference, using English in a variety of simulated cases. So, I'm able to learn various expressions which are immediately usable in my day-to-day jobs. In addition, I learn differences between Japanese culture and other cultures and also English words usable for non-business occasions. I feel like I'm gaining gradually English speaking and listening skills, which are needed for employees at the times of globalization like today.

My target at this stage is to reach a level where I can manage negotiations and other businesses by myself with confidence as a full-fledged staff member while continuing lessons until I can make full use of what I have learned.

## Re-employment after age-limit retirees

—utilization and promotion of the re-employment system

The company has a program to utilize knowledge and skill of those who retired due to age-limit for the purpose of ensuring job efficiency and nurturing their successors.

#### Trend of re-employees

Fiscal Year	2006	2007	2008	2009	2010
Number of retired employees	10	14	22	34	38
Number of re-employees	6	11	9	20	25
Ratio of re-employment	60%	79%	41%	59%	66%

#### **Promotion of employment of disability persons**

We intend to promote employment of disability persons.

#### Trend of employment of disability persons

Fiscal Year	2006	2007	2008	2009	2010
Actual ratio of employment	2.12%	2.14%	1.93%	1.89%	1.81%
Legal ratio of employment	1.80%				

# Toward respect of human rights and prevention of sexual harassment

The company undertakes training in this respect for new employees and also for those employees who are promoted to management positions. In addition, responsible persons selected jointly by labor and management are deployed in respective business locations for the purpose of consultation and handling of this sort of matters.

#### Approach to mental health problems

The company introduced EAP\* in 2010 in collaboration with external institutions to deal with mental health problems.

Suggesting employee's self-care of mental health, the company conducts stress check on all employees and attempts to detect, prevent, and improve mental disease at an earlier stage.

EAP\*...Employee Assistance Program

#### Sound labor-management relations

Respecting each other's position, the company carries out, jointly with the labor union, various programs toward further growth of the company, development of employees, and creation of better working conditions.

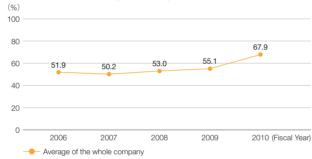
Common understandings between management and labor are formed through discussions and consultations at various committees such as the central labor-management consultative committee, the central labor-management environment and safety committee, and local labor-management consultative

committees of respective business locations, which are arenas where discussions are conducted to define measures to be taken for creation and maintenance of stable labor-management relations and its further development.

#### **Toward reduction of actual working hours**

In 2010 the company introduced a scheduled annual leave plan (3 days a year) and an anniversary leave plan (1 day a year) toward reduction of actual working hours of employees, while encouraging employees to take as many paid holidays as practically possible and setting up "day of no overtime work" at respective business locations.

#### ■ Trend of utilization of paid holidays



#### Status of utilization of scheduled annual leave/ anniversary leave

	Utilization ratio (results in 2010)
Scheduled annual leave	71.2%
Anniversary leave	79.9%

# Assistance for employees who need leaves to give nursing care / childcare

To assist employees who need to keep balance between home and workplace by unavoidable reasons, the company maintains several plans such as childcare leave plan and nursing care leave plan, which are related to childbirth, child rearing and nursing care.

#### A list of childcare / nursing care benefit plans

Name of benefit plan	Outline	
Childcare leave	Approval is obtainable for an employee to rear his or her child after delivery (in principle until her child becomes one year old).	
Nursing care leave	Approval is obtainable for an employee to nurse his or her family (1 year).	
Nursing care leave for children	Approval is obtainable for an employee to use the plan to take care of injury or disease of his or her child (5 days / one child / year).	
Care leave	Approval is obtainable for an employee to use the plan to give care to his or her family member who is in need of nursing care (5 days / each member of the family / year).	
Exemption of unscheduled work	Submission of request is allowable for an employee to apply for an approval to use the plan to nurse his or her child younger than three years	
Short-time service for child rearing	Condition for the request is the same as above (max. 2 hours a day; shortening of time acceptable with 30 minutes as unit of calculation)	
Short-time service for nursing care	approval to use the plan to give care to his or her family member i	

Befu Works

[Policy] While gaining trust and confidence from the community, customers, and employees at the site, we will engage in production activities, seeking further rationality and higher efficiency of the activities. Through promotion of various movements such as exchange of greetings, 5S initiatives, clear-cut facility formation, and risk prediction before start of operation, we will foster and strengthen the sense of "Safety Comes First" which is "Corporate Policy on Safety, Environment and Quality" and continue to take actions for building a workplace where employees are able to work healthfully, actively and pleasantly and are motivated to constantly improve their skills by their own initiatives.

- Location: 346-1 Miyanishi, Harima-cho, Kako-gun Hyogo 675-0145, Japan
- Number of employees: 402
  Production Items: Fine Chemicals, Gas Products etc.





With people of the community

#### ■ Application examples of the products of Befu Works

Production items	Major applications	
Pharmaceutical- related products	Intermediate for pharmaceuticals, Bulk substance for hypnotics and sedatives, Synthetic reagent for intermediates of pharmaceutical chemicals	
Additives	Fluorescent brightener for thermoplastic resins	
Industrial chemicals	Raw material for agricultural chemicals, and organic synthesis	
Gases products	Various analysis and tests, Lasers gas, General anesthesia, Sterilizing medical instrument, PC, Liquid-crystal display	
Gas generators and related products	Oxygen and nitrogen gas generators, Hydrogen gas purification, Recovery and purification of carbon dioxide, argon and methane gas	

#### ■ Performance Data at Befu Works

Energy (as crude	Energy (as crude oil)	
	CO <sub>2</sub>	68,392t/y
Air	SOx	3.63t/y
	NOx	12.0t/y
Effluent	Volume of effluent	1,578×1,000m <sup>3</sup> /y
	COD	15.3t/y
	Quantity	11,533t/y
Waste material	Recycle ratio	52%
	Landfill	129t/y
PRTR (Volume of exhaust to air)		11.7t/y

#### Results of activities in 2010

Reflecting on the previous year when serious troubles occurred one after another and aiming at recovery of trust from the community, the local government, and workers in this area as well as further enhancement of the base of safety, in 2010 we carried out activities which rather shifted back to the basics such as exchange of greetings and 5S initiatives. In the latter half of 2010, we initiated a movement of thorough implementation of pointing / calling practices by each worker. It is likely that more effort and time will be required until those actions come to be playing an important role in solidifying the base of safety. Things we should do for the time being may be to continue those efforts, attempting to push the level of activities up to a point from which we will never turn back.

Our result of safety in 2010 was that we achieved zero accidents accompanied by lost work-time and zero major accidents. But in the first half of 2010 there were two accidents though we had no lost work-time. Those particular accidents with no lost work-time were something we could have prevented, but we were not able to do so, which we presume may be the limit of our capability today.

Excellent relations are now being built in the field of safety management of construction work among the Works, our maintenance team, and external cooperative groups, in which they cooperate and learn with and from each other. Establishment of such relations is, we believe, part of our achievements. We will continue to make effort for formation of a mechanism which will make it possible for such relations to take a strong hold among the three parties.

The level of attention to environment protection seems to be considerably improved as a result of reinforcement of local management of plant and equipment, and it is our intention to further improve the level of reliance by continuing further complementary efforts.

Site report

Himeji Works

[Policy] Himeji Works is located in Harima Industrial Zone facing Harima-nada (part of the Seto Inland Sea) in southern part of Himeji City, Hyogo Prefecture. The basic principles of our plant operations are "manufacturing with trust from customers, placing emphasis on their safety and security" and "achieving a sustainable growth, ensuring co-existence and co-prosperity with the community, and developing safe and stable production activities". Following these principles, we carry out our responsible care activities, aiming at creating a workplace where 5S initiatives are widely practiced and employees are able to work safely, peacefully and healthfully, and securing an increased corporate value while earning trust from customers and the society.

- Location: 1 Irifune-cho, Shikama-ku, Himeji City Hyogo 672-8076, Japan
- Number of employees: 340 Production Items: Super Absorbent Polymers, Water-soluble Polymers, Fine Particulate Polymers etc.





The welfare building equipped with energy-saving LED for lighting

#### Application examples of the products of Himeii Works

Production items	Major applications
Super absorbent polymers	Disposable diapers, Pet sheets, Water repellent tape for power and optical cables
Water- soluble polymers	Shampoo, Hair conditioner, Hair gels, Cooled sheet, Adhesive skin patch
Powdered Plastics	Cosmetic additive agent for foundation, Emulsion, Cream, Scrub cosmetics
Latex	Sizing agent for glass fibers
Gases products	Aerosol propellants, Blowing agent
Industrial chemicals	Adhesive agent, Raw material for resin

#### Performance Data at Himeji Works

Energy (as crude oil) 50,904 kl/y		
Lifergy (as crude	. (11)	30,904 Ke/y
	CO <sub>2</sub>	93,108t/y
Air	SOx	-t/y
	NOx	34.0t/y
Effluent	Volume of effluent	1,694×1,000m <sup>3</sup> /y
	COD	15.2t/y
	Quantity	11,124t/y
Waste material	Waste material Recycle ratio	
Landfill		9t/y
PRTR (Volume of exhaust to air)		119.3t/y

#### Results of activities in 2010

Major products of Himeji Works were supported by brisk demand from emerging countries, and thereby we were able to achieve construction of new production facilities and expansion of production capacities. Under such favorable circumstances, placing emphasis on basics and also leveraging various experiences, we developed our responsible care activities, ensuring environment protection at all stages of a product life cycle from R&D to disposal via production, distribution, use, and final consumption.

To prevent troubles and accidents relating in particular to safety, environment, and quality, we promoted such initiatives as "supposition of near-miss cases", "training for hazard prediction", "improvement of patrol in workplace", and "risk assessment", which led to improvement in awareness of safety among employees and also to acquisition of various awards including "Minister of Health, Labor and Welfare Prize (OSH)" and "Himeji City Mayor Award (management of hazardous facilities)". In order to ensure sustainable growth as well as safe and stable plant operation, it is imperative to pursue possible ways to make advance in considering how manufacturing should be fundamentally and to motivate each employee to change in the way of thinking in his or her position in the workplace. And we continue to work hard to have the base of Himeji Works solidified in order to create a workplace where workers can work cheerfully, healthfully, and peacefully while earning trust from customers and the local community.

## Chiba Works

[Policy] Major products of Chiba Works are standard gases, special gases for semi-conductors, coating materials for metal products, and powdered plastics which are materials for fabricating bathtubs. We are attempting to create a manufacturing works that is trusted by the community and customers under the basic policy of "Safety Comes First" and with a mantra of "clean & safety, communication & speed".

- Location: 1384-1 Kamikoya, Yachiyo City, Chiba 276-0022, Japan
- Number of employees: 68 Production Items: Gas Products, Fine Powder Plastics etc.



#### Performance Data at Chiba Works

Energy (as crude oil)		1,899kl/y
Air	CO <sub>2</sub>	3,088t/y
	SOx	-t/y
	NOx	0.2t/y
Effluent	Volume of effluent	302×1,000m <sup>3</sup> /y
	COD	0.4t/y
Waste material	Quantity	217t/y
	Recycle ratio	28%
	Landfill	7t/y
PRTR (Volume of exhaust to air)		7.2t/y

#### Results of activities in 2010

Without any accidents and casualties in 2010, we rewrote our record of no accident which has lasted since 1989. In 2010, we were able to reduce the number of troubles attributable to human errors as a result of thorough implementation of pointing / calling practices in critical spots, 3S by VPM activities, and visualization. In the field of environment protection, we are working on improvement of production facilities and addressing a problem of reducing volatile organic chemicals. While encouraging employees to participate positively in various training and competition programs and to acquire or upgrade skills, we are aiming to establish an environment- and human-friendly workplace.

Sumitomo Seika Singapore Pte. Ltd. [Policy] 1.We will secure safety and hygiene, endeavor to maintain stable operations, and to improve the level of safety and hygiene.

2. We will supply quality products and services which are fully satisfactory to our customers.

3.We will ensure environment protection by way of proper use of energy and raw materials.

4. We will comply with laws, regulations, covenants, and all the other similar rules.

- Location: 17 Sakra Road Singapore 627886



#### ■ Performance Data at Sumitomo Seika Singapore Works

Energy (as crude oil)		34,939kl/y
Air	CO <sub>2</sub>	40,302t/y
	SOx	-t/y
	NOx	-t/y
Effluent	Volume of effluent	135×1,000m <sup>3</sup> /y
	COD	100t/y
Waste material	Quantity	636t/y
	Recycle ratio	-%
	Landfill	620t/y
PRTR (Volume of exhaust to air)		-t/y

#### Results of activities in 2010

①We are striving to create a safety culture, and while continuing our record of zero accident with lost work-time and zero environment accident since the start of operation, we are exerting efforts to have risk assessment function as an effective means to help most surely reduce hazards, reexamining the Hazop report. ②We have gained reputation as an excellent supplier from major customers in our survey on customer satisfaction in the past two years. ③We are protecting environment by reducing unit consumption of steam, water, and electricity by way of proper use. ④We modified management systems in compliance with the newly-enacted ordinance of safety and hygiene of the Singapore government.

Sumisei Taiwan Technology Co., Ltd. [Policy] In Taiwan, semi-conductor device manufacturers are integrated, and industries of semi-conductors and LED are rapidly expanding. Our company supplies high-purity ammonia to customers in these fields, and for them, stable supply of quality products is essential. Under such background, our policies are: 1. to supply quality products which fully satisfy customers and which are used by them with high reliability 2. to keep zero accidents and zero casualties and ensure stable supply 3. to contribute to reduction in environmental load and to environment protection through product supply.

- Location: No.2 ChangPing West 4th road, Chang Ping Industrial Park, Siansi Township, Chang Hua County 50741Taiwan R.O.C.
- Number of employees: 15
  Production Items: High-Purity Ammonia



#### Results of activities in 2010

Supported by brisk demand from mainland China, shipment of our high-purity ammonia was rapidly boosted mainly for LED market. Though it was a great challenge for our company which is not so long since the start of operation to realize production increase, maintain high quality, and ensure stable supply, we were able to achieve a high rate of capacity utilization, also achieving such tasks as: 1. to provide employees with thorough

education of technology and safety, and 2. to maintain high quality, while complying with ISO standard, various kinds of regulations, and related procedures.

In addition to the above efforts, in 2011 we will enhance approach to facility maintenance, particularly because deterioration of production facilities progresses more rapidly due to reasons attributable to the area where our plant is located. Taking

necessary measures, we will endeavor to earn trust from our customers.



Inspections before shipmen

Sumisei Chemical Co., Ltd. [Policy] In 2010, the second year after the start of operation, our production facilities were in full operation, supported by a high growth of LED market with TV as its major outlet. We implemented our activities, renewing our attention to the importance of "securement of safety of our employees and the community through realization of zero accident and zero casualty" and "stable supply of quality products and services highly satisfactory to customers and reliably usable to them"

- Location: Paju-city, Gyeonggi-do, Korea
- Number of employees: 13
   Production Items: High-Purity Ammonia



#### Results of activities in 2010

[Attainment of zero accident and zero casualty] While developing 5S initiatives with securement of well-organized and cleaned workplace as the basic matter, we carried out: 1. visualization and cleanliness of the plant, 2. scheduled safety education intended to secure plant conditions which are free from human error and free from plant trouble, 3. establishment of preventive maintenance system, and 4. re-examination of education

system intended to upgrade workforce.

[Securement of stable quality] Aspiring to a complete settlement of quality management system and its operation, we implemented such activities as: 1. employee education, 2. internal auditing, twice a year, 3. response to external auditing (preservation examination, auditing of RC and quality).

We took measures and responses steadily at respective stages

of facility improvement and modification. As a result, we attained zero accident, zero casualty, zero complaint from customer, and zero violation of laws.



Safety education

## **Independent verification report**



#### Corporate Social Responsibility Report 2011 Independent Verification Report

August 5, 2011

To: Mr. Yusuke Ueda

Sumitomo Selka Chemicals Company, Limited



Chief Director, Responsible Care Verification Center Japan Chemical Industry Association

#### ■ Purpose of verification

This verification aims to express opinions of Responsible Care Verification Center, in its capacity as an expert in the chemical industry, on the following items concerning the "Corporate Social Responsibility Report 2011" (hereinafter "the Report") that was prepared by Sumitomo Seika Chemicals Company, Limited (the Company):

- The rationality of collection, compilation and calculation methods of performance indices (numerical values) and accuracy of the values
- 2) The accuracy of information other than numerical values presented in the Report
- 3) The details of the Company's Responsible Care activities
- 4) The characteristics of the Report
- \* We audited the matters relating to environment, health, and safety only.

#### ■ Verification procedure

- For the corporate head office, we audited the rationality of the calculation methods of numerical values reported from each site (office and works), as well as the accuracy of information other than numerical values presented in the Report. This was done by interviewing personnel responsible for relevant business operations and those in charge of preparing the Report, asking them about information given in the Report and hearing their explanations of supporting documents.
- For Himeji Works, we audited the rationality of the calculation methods of numerical values reported to the corporate head office and
  the accuracy of those values, as well as the accuracy of information other than numerical values presented in the Report. We
  conducted the audit of Himeji Works by questioning personnel responsible for relevant business operations, hearing their explanations
  of supporting documents, and cross-checking the data and information with evidential matter.
- · We applied a sampling technique to the audit of numerical values and other information presented in the Report.

#### Opinions

- 1) The rationality of collection, compilation and calculation methods of performance indices (numerical values) and accuracy of the values
- · Rational methods were employed at the corporate head office and Himeij Works to collect, compile and calculate numerical values.
- As far as we audited, the performance numerical values were accurately collected, compiled and calculated.
- 2) The accuracy of information presented in the Report
- We confirmed that the information presented in the Report was accurate. Although we made a few comments about the
  appropriateness of some expressions and the readability of some sentences at the draft stage, reasonable corrections have been
  incorporated in the final Report. As a result, there are no important matters that require revisions at present.

#### 3) The details of the Company's Responsible Care activities

- We value the company's active efforts for RC activities, such as creating management systems and databases, using those to control
  the RC action plan, and establishing or conducting compliance evaluation, education and training, and maintenance.
- We value the Company's diligent safety management efforts for its existing production facilities, such as management of deterioration caused by aging to predict failure risk, and safety evaluation by the use of HAZOP technique.
- We note that Himeji Works carries out an excellent water discharge management as a result of an intensive investment. Also, we highly value the Works' continued commitment to contributing to the local community and the fact that such efforts are recognized and commended by the community.
- We value the Company's efforts for increasing transparency of its RC activities, such as receiving the Development Bank of Japan's "DBJ Environmental Ratings" and undergoing third-party evaluations for the process safety.
- 4) The characteristics of the Report
- The Report proves the Company's active efforts for information disclosure, as is evident in the disclosure of such data as the detailed financial information and the percentage of paid holiday taken.