

# CSR Management

The Showa Denko Group seeks to earn the full trust and confidence of society by providing safe and useful products and services, thus fulfilling its corporate social responsibility (CSR).

## \*1 Compliance

This refers to compliance with laws, regulations, in-house rules, operating manuals, and other rules, based on an understanding of the reasons underlying such rules. Alongside business ethics, compliance lies at the root of CSR activities.

## \*2 Risk

Potential dangers and losses

## Risk management

A management method for implementing stable business management by addressing risks through cost-effective and appropriate means.

## \*3 Responsible care

→ See page 29.

## \*4 Stakeholders

Individuals or organizations affected by, or having an effect on, a company's business activities, including shareholders and other investors; employees; customers and consumers; partners and suppliers; government agencies; and nongovernmental organizations (NGOs).

Over the three-year period covered by its medium-term CSR plan (2006-2008), the Showa Denko Group each year worked to build CSR foundations based on the keywords of promotion, firm establishment, and continuing development.

In 2008, the Group moved forward with activities based on the following CSR policies:

**General Policy for 2008:**

**Continued development of the third stage of CSR-based management**

- 1 Building a firm foundation for CSR at Group companies in Japan and overseas
- 2 Sustained efforts to enhance the following core aspects of CSR:  
Compliance,\*1 comprehensive risk management,\*2 Responsible Care (RC)\*3
- 3 Sustained CSR dialogue with all stakeholders\*4

See the following page for 2008 CSR performance.

At the end of 2008, in addition to reviewing the three years of the medium-term CSR plan, the Group established CSR goals to be achieved by the Showa Denko Group by 2015, and established CSR policies for 2009 and 2010 in accordance with the Passion Extension business plan.

**The Showa Denko Group's CSR Goals for 2015**

- While respecting employee diversity, share values and raise motivations for contributing to the sustainable development of society
- Address environmental protection and climate change issues not only as risks, but also as opportunities
- Encourage employees to discuss the Showa Denko Group's social contributions through its products and businesses

**The Showa Denko Group's CSR policies for 2009-2010**

**Realizing a company that contributes to the sound growth of society**  
Secondary theme: Contributing to the sustainable development of society

- 1 Practicing CSR at Group companies in Japan and overseas
- 2 Sustained efforts to enhance the following core aspects of CSR:
  - Maintaining and developing the compliance structure
  - Promoting comprehensive risk management
  - Deepening Responsible Care activities
- 3 Enhancing CSR dialogue with stakeholders

## CSR performance and issues

● Fully achieved ○ Achieved 80% or more △ Achieved less than 80%

	2008 plans	2008 achievements	Evaluation	2009 plans
<b>Compliance</b>	Building a firm foundation for the PDCA cycle in RC activities	Compliance structure checked through RC audits Site checklists and compliance lists checked Interviews with affiliates in Japan	○	Building a firm foundation for the PDCA cycle in RC activities and other domains
	Continuing training and education activities related to specific laws and regulations	Ongoing training and education on individual legal matters, such as laws and export controls	●	Achieving a systematic understanding of applicable laws and regulations Ongoing training related to individual laws and regulations Systematizing ethics training and adopting relevant tools
<b>Risk management</b>	Introducing the PDCA principle to risk management	Risk-management rules established (February 2008) Interviews involving risk assessment (second year), RC audits, etc. Phosgene leaks at Higashinagahara Plant	△	Thoroughly applying the principle of risk management PDCA cycle
	Promoting the BCP*5 and responses to new influenza strains	BCP preparation begun in each business section Basic action plan and site-specific action plans developed for new influenza strains Site-specific action manuals prepared, supplies distributed	●	Promoting the BCP and responses to new influenza strains
<b>Internal control*6 system</b>	Establishing a system of internal controls for financial reports	Internal Control Promotion Office established	●	Promoting internal control for financial reporting
<b>Corporate governance</b>	Maintaining the internal control system	Articles of Incorporation revised and outside director appointed	●	Checking the corporate governance system
<b>Dialogue with stakeholders</b>	<b>Customers and consumers</b>			
	Maintaining lines of communication with customers through business transactions Reducing complaints	Activities to improve quality assurance continued The number of complaints continues decreasing, but the rate is slowing down.	○	Maintaining lines of communication with customers through business transactions Reducing complaints
	<b>Shareholders</b>			
	Continuing IR*7 activities (promoting overseas IR)	Promoted in accordance with IR plans	●	Continuing IR activities (promoting overseas IR)
	<b>Employees</b>			
	Developing and promoting issues related to CSR cooperation with the labor union	Dialogue with the labor union continued. CO <sub>2</sub> diet*8 activities conducted jointly	●	Developing and promoting issues related to CSR cooperation with the labor union
	Promoting awareness of the Code of Conduct	Code of Conduct Guidelines revised (January 2008)	●	Promoting awareness of the Code of Conduct Guidelines
	Employee awareness surveys	Conducted in February 2009	●	Conducting employee awareness surveys and analyzing results
	<b>Partners</b>			
	Starting CSR procurement and dialogue with business partners	CSR procurement guidelines prepared	●	Initiating surveys on CSR procurement
<b>Society</b>				
Promoting dialogue	Dialogue with communities continued using mobile exhibitions	●	Promoting dialogue	
<b>Increasing corporate value</b>	Advancing the medium-term consolidated business plan (achieving goals for final year)	Reported on pages 17-18	△	Promoting the Passion Extension business plan
<b>Responsible Care (RC)</b>	Promoting the medium-term RC plan	Reported on pages 31-32	●	Promoting the medium-term RC plan
<b>Interactions with society</b>	Preparing CSR reports for corresponding sites	Site-specific CSR reports posted on website	●	Expanding and enhancing CSR reports for corresponding sites
<b>Employees</b>	Promoting diversity in employment	A diversity promotion team established within the Human Resources Office	●	Promoting diversity programs
	Improving human rights programs	Human Rights Committee organization restructured → Aiming at group deployment	●	Promoting human-rights education in the Showa Denko Group

\*5 BCP  
Business Continuity Plan

Corporate risk management to prepare for emergencies such as natural disasters or major fires, in the form of plans for the rapid restoration of business operations following such events.

\*6 Internal control

A process incorporated in business operations and executed by all members of an organization to achieve the goals of the organization. An internal control system is a system for implementing this process.

\*7 IR

Investor relations

\*8 CO<sub>2</sub> diet

In 2008, the Showa Denko Group initiated carbon-dioxide diet efforts in cooperation with the Team -6% Committee, a movement led by the Ministry of the Environment of Japan to prevent global warming. The key point of these activities is to have each employee declare his or her own efforts to reduce carbon-dioxide emissions and to strengthen his or her efforts while keeping a monthly self-assessment log on the corporate intranet. Progress on these efforts will proceed through labor-management cooperative efforts.

# Corporate governance

## \*1 Corporate governance

Narrowly defined, this refers to relationships between shareholders and company management and to a company's decision-making and business execution structures and systems. More broadly defined, it refers to the relationships between a company and its stakeholders that help define the company's ultimate goals.

## Organization for promoting CSR

In July 2005, Showa Denko established a CSR Committee and a CSR Office to integrate and to aggressively implement Group CSR activities.

The CSR Committee is responsible for considering and determining basic policies and comprehensive strategies and for managing all CSR-related activities undertaken throughout the Group.

As the secretariat for the CSR Committee and the Risk Management Committee, the CSR Office plans basic Group CSR policies and strategies, gathers CSR-related information, coordinates efforts to ascertain and evaluate the progress of Group CSR activities, and formulates risk-management strategies for the entire Group.

In addition, we have assigned CSR managers at each sector, plant, office, and Group companies to implement CSR activities throughout the Group.

## Corporate governance

Showa Denko works to ensure the soundness, effectiveness, and transparency of its management and to continually improve its corporate value. To this end, the Group is improving its corporate governance\*1 (e.g., internal control systems and fraud-prevention functions) based on the following strategies:

- Strengthening compliance
- Strengthening management supervision and oversight functions
- Clarifying management responsibilities
- Rapid, effective decision-making and task implementation
- Strengthening the information disclosure system

## Group management

The Showa Denko Group has formulated its Vision, Code of Conduct, medium-term business plans, management policies, and annual action plans while respecting the independence of affiliate companies.

Group affiliates undertake business activities in cooperation with sections in charge of their businesses and report on the execution of their business activities in accordance with Group management rules.

Risk management is carried out on a Group basis in accordance with Group's risk-management rules. The Group works to ensure thorough compliance throughout the entire Group by establishing guidelines for corporate conduct based on business type and conditions of affiliates.

Showa Denko auditors and internal-audit sections audit and examine the performance of affiliates as necessary. In addition, auditors work to ensure coordination with corporate auditors of key affiliates in various ways, including periodic meetings.

## Corporate Vision

When its medium-term consolidated business plan was formulated in January 2002, Showa Denko defined its Vision. In August 2005, we partially revised its wording to emphasize corporate-wide CSR activities and to establish better relationships based on trust with our stakeholders all over the world.

## Code of Conduct and Guidelines

In 1998, Showa Denko established its Code of Conduct, which sets company behavioral standards and fundamental goals for its executives and employees. This Code of Conduct represents the Group's principles for promoting CSR, based on the Group's Vision, and we strive to put this Code into practice. In 1999, the company established Guidelines that provide specific examples related to compliance with the Code. These guidelines were revised in 2005 and 2008. Group member companies are also establishing their own Guidelines for Code of Conduct to reflect their own specific circumstances.

## Showa Denko's management organization

### ▶ Board of Directors

At Showa Denko, the Board of Directors is responsible for important decision-making and supervisory functions, while corporate officers are responsible for business execution functions. The Board of Directors consists of 12 directors, including one outside director. Chaired by the Chairman of the Board of Directors, who does not serve as corporate officer, the Board both determines the company's fundamental policies and considers

## Showa Denko Group's Vision

We at the Showa Denko Group will provide products and services that are useful and safe and exceed our customers' expectations, thereby enhancing the value of the Group, giving satisfaction to our shareholders, and contributing to the sound growth of international society as a responsible corporate citizen.

## Code of Conduct

- 1 We will develop and provide useful and safe technologies, products, and services to contribute to the sound growth of society.
- 2 We will observe the laws of Japan and of the foreign countries in which we operate, abide by Company rules, and strive to maintain the social order.
- 3 We will conduct business in Japan and abroad based on the principle of fair and free competition.
- 4 We will do our best to ensure safety and to protect the global environment.
- 5 We will make sure that we maintain good communications with the public and disclose accurate information on our Company in a timely manner.
- 6 We will respect human rights and create a cheerful and comfortable working environment.
- 7 We will act as a member of the international society and contribute to the development of the regions in which we operate.

and makes decisions on matters stipulated in the Companies Act and the Articles of Incorporation, in addition to decisions related to key issues regarding the execution of business operations. The Board of Directors also oversees each Director's executive actions.

### ▶ Board of Auditors

Showa Denko employs an auditor system. The Board of Auditors consists of five auditors, including three outside auditors. Auditors attend meetings of the Board of Directors and other important meetings within the company, offer opinions when needed, and audit the execution of business operations, offering suggestions and advice to ensure that the Company operates in a sound manner. Auditors also seek to strengthen consolidated Group management by enhancing the overall auditing of Group member companies.

### ▶ Corporate Officers

To ensure swift decision-making in the execution of business operations and to invigorate such operations, Showa Denko has adopted a corporate officers system.

### ▶ CSR Committee

Showa Denko has established a CSR Committee at the highest management level

to oversee all management strategies from a CSR perspective. Chaired by the President & CEO, the CSR Committee's membership consists of members of the Management Committee.

### ▶ Management Committee and R&D Committee

Meeting weekly in principle, the Management Committee consults and makes decisions on issues to be submitted to the Board of Directors and on important general issues related to company management. The R&D Committee deliberates and makes decisions on important issues related to research and development.

### ▶ Business-sector structure

To clarify its system of responsibility for implementing business operations, Showa Denko has adopted a structure based on business sectors. To ensure thorough performance evaluations that focus on results, we have also implemented a system for evaluating the performance of business sectors.

### ▶ Committees

Showa Denko has established a number of committees to handle specific issues central to the execution of business operations. These

include the Risk Management Committee, the Corporate Ethics Committee, the Responsible Care Committee, the Security Export Control Committee, and the IR Committee. Each committee conducts investigation, research, and deliberations related to its areas of responsibility.

► **Internal Audit Office**

As an organization under the direct authority of the President, the Audit Office performs internal audits. The Internal Audit Office investigates the status of business execution by SDK and its Group companies to ensure compliance with laws, regulations, and other applicable rules; the efficacy and efficiency of business operations; financial soundness; and the reliability of financial reporting.

► **Legal Advisor**

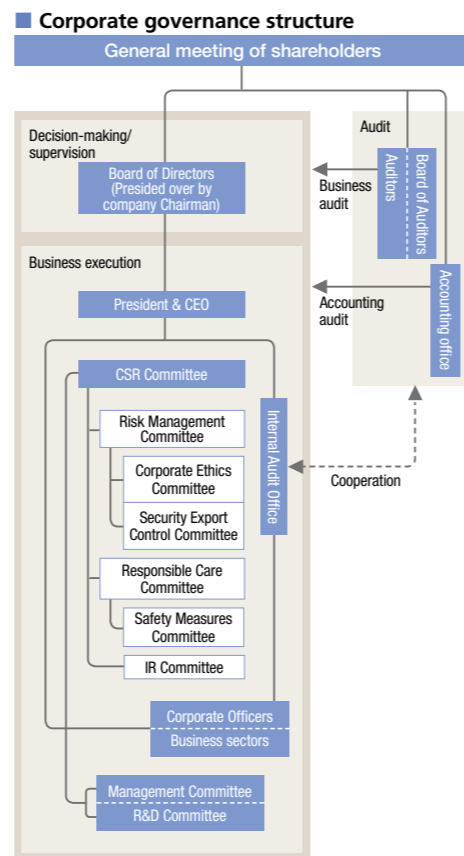
Showa Denko works to ensure compliance with laws, obtaining advice on legal matters from its Legal Advisor as needed.

► **Internal Control Promotion Office**

The Internal Control Promotion Office designs the system of internal control for financial reporting and evaluates the effectiveness of the system on behalf of the president. It also reports to the president on the results of these activities and provides support for developing and improving the internal control system to achieve an appropriate level in the design and use of the internal control system for financial reporting.

► **Accounting audits**

Showa Denko works to ensure the soundness of its accounting practices, undergoing periodic accounting audits by certified public accountants.



**VOICE**

**Voluntary efforts toward internal control**

The Showa Denko Group has designed its internal control system in accordance with the Practice Standards for Management Assessment and Audit concerning Internal Control over Financial Reporting. We will verify that the system functions properly so that highly reliable financial reports will be prepared. Despite the impulse to regard such reporting system as merely self-protective, my belief is that they go well beyond such motivations. Activities like identifying and reducing risks and proactively identifying and resolving issues in the process of designing the internal control system can help improve Group business management. Our goal is to earn the full trust of our stakeholders through voluntary efforts on the part of the entire Showa Denko Group within the framework of this system.

**Toshinori Takagi**  
General Manager  
Internal Control Promotion Office



# Risk management

**Risk management**

Showa Denko regards risk management as one of the most important aspects of company management. As such, the company seeks to improve, maintain, and promote its risk management system.

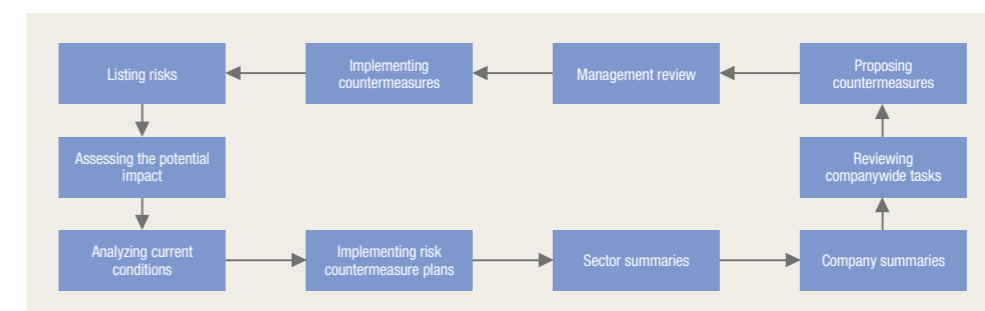
The Company has established a Risk Management Committee to promote risk management groupwide. This Committee prioritizes risks that threaten company policies, plans, and the Group as a whole based on assessments of their potential impact and likelihood. It also provides support for promoting measures to circumvent such risks and to respond to them should they occur. Major topics affecting the entire Group are presented for discussion at the CSR Committee, where decisions are based on deliberations from a wide range of perspectives.

In addition, specific risks involving matters such as environmental protection, security and disaster prevention, chemical substances, quality, intellectual property, fair trade, export controls, and contractual agreements are managed through a system of prior examination and decision-making, in accordance with internal regulations. Actions taken in the event of emergencies, including accidents and disasters, are implemented as stipulated in the emergency situation action guidelines and other internal regulations.

**The risk-management PDCA cycle**

The Group has taken "risk inventories,"\*1 since 2007, assessing the importance of risks, proposing and promoting risk countermeasures, and implementing annual reviews to strengthen risk management.

■ **The risk-management PDCA cycle**



The results of these efforts are summarized and presented at meetings of the Risk Management Committee. The information is organized into specific topics to be addressed companywide. When necessary, cross-functional efforts based on these topics are implemented companywide.

Examples of companywide efforts in 2007 and 2008 include the preparation of the Business Continuity Plan (BCP)—assuming such risks as large-scale earthquakes, fires, and explosions—and countermeasures against new influenza strains.

► **Business Continuity Plan (BCP)**

Based on fundamental policies for each business sector, we identified key operations with high priority by conducting a business impact analysis (BIA). This was followed by process analysis, including the identification of bottlenecks\*2 for priority operations and consideration of strategies and responses. These activities are documented and firmly implemented through training and drills and continual improvements added annually thereafter.

► **Countermeasures against new influenza strains**

Based on the basic plan for responding to new influenza strains, established as a fundamental policy for such measures, all Group member companies have prepared their own action plans and drafted specific countermeasures corresponding to alert levels. Specifically, as part of the Business Continuity Plan, we have worked out measures to prevent the exposure of employees to new flu strains and the spread of such viruses. We have established detailed action manuals. Activities are implemented through training and drills and continual improvements added.

\*1 **Inventory**

A term referring to periodic stock-taking at a store or other business, it can also be used to refer to reviews of tasks and problems.

\*2 **Bottleneck**

This refers to the rate-determining process stage at which efficiency or productivity is low.

**\*1 Data centers**

Such facilities are located in a building that features increased earthquake resistance, based on seismic base isolation techniques and a seismic control structure. Such buildings are also equipped with backup electrical systems and private generators as well as enhanced security measures, including a round-the-clock system for entry and exit control based on ID cards and security cameras.

**▶ Information security**

With the rapid growth of the Internet, the quality and quantity of the information a company can handle and the speed at which it can do so have grown dramatically. At the same time, the risk of information-related crimes and accidents has never been higher, including the theft of personal information, leaks of internal company information, and unauthorized alteration of company websites. Showa Denko has established Basic Guidelines for Information Security, Information Security Regulations, as well as Personal Information Protection Guidelines, seeking to develop a system to prevent information-security incidents and to minimize any resulting damage to its business while ensuring business continuity. We are also proceeding with activities intended to raise employee awareness through e-learning-based training. This will ensure a thorough understanding of these basic guidelines and regulations throughout the organization.

To maintain systems related to information security, we are making efforts to prevent unauthorized access from outside the organization; enhancing measures to

prevent information leaks; and strengthening information-security governance at each overseas Group member company.

Under its Business Continuity Plan (BCP), Showa Denko is taking the following steps to protect such assets from the wide range of threats they face.

- Security measures for information resources such as PCs
- Hosting key system servers at data centers\*1 and implementing timely updates
- Enhancing the reliability of networks connecting key production sites

Key efforts in fiscal 2008:

- Ensuring thorough implementation of antivirus measures for PCs and other devices; enhancing measures to prevent theft and unauthorized access
- Enhancing security for overseas networks and making them easier to use
- Enhancing backup connections to key production facilities

**VOICE**

**Protecting our information systems from various risks**

Despite many benefits they offer, information systems involve security risks. The field of information technology, as exemplified in the Internet, has seen remarkable growth in recent years. While these advances have resulted in great convenience, we must be very careful with the use of new technologies. For example, technologies that enable access to company networks while off company premises can also be used by outsiders to intrude and spy into company systems. It is essential to assess convenient functions from the perspective of security risks, implementing appropriate countermeasures and conducting verification.

As information systems provide main support of the company's overall operations, we have a heavy responsibility. This makes us feel that our work is very rewarding.

**Kohei Kasahara**  
 Manager  
 Information Systems Office



**Compliance**

We place adherence to societal norms and business ethics at the top of our management agenda, emphasizing compliance with laws and regulations in carrying out our operations. Although we had already firmly promoted legally compliant management at all companies within the Showa Denko Group, we established the Corporate Ethics Committee in January 2003 to ensure thorough implementation of legally compliant management from an organizational perspective. In 2005, we further enhanced the compliance system in each business sector, seeking to proactively prevent misconduct.

In the sphere of security-related trade controls, the company in 1987 established the Security Export Control Committee, which seeks to enhance compliance through these controls.

**▶ Corporate Ethics Hot Line**

We established the Corporate Ethics Hot Line to serve employees of all Showa Denko Group companies. This system seeks to prevent or quickly correct any incidents such as violations of corporate ethics or laws, regulations, or company rules. The Corporate Ethics Hot Line focuses on a stringent respect for the privacy of employees seeking consultation. This system ensures no employees will be penalized for doing so; further, employees can report information or consult directly via the company intranet, e-mail, telephone, letters, or other means.

Since January 2005, the services have been made available at outside law offices, in addition to their availability within the company.

**▶ Corporate Ethics Month**

Since January 2004, we have designated each January as Corporate Ethics Month.

During Corporate Ethics Month, all executives and employees of each Group member company in Japan carefully read the Code of Conduct and its Guidelines to refresh their understanding of the importance of corporate ethics, and each reexamines his

or her own individual actions. In addition, all officers and managers signs a declaration of compliance with the Code of Conduct and the corresponding Guidelines.

Case study-based learning is underway as part of Corporate Ethics Month. Measures implemented in 2009 included the introduction of e-learning for managers.

**▶ Security Export Controls**

In the vicinity of Japan and around the world, concerns continue to grow concerning the development and proliferation of weapons of mass destruction and the threat of terrorism. To ensure the development of a peaceful, secure world, developed nations are working to ensure that non-military products and advanced technologies that could be converted for use with weapons such as nuclear or conventional weapons do not reach countries of concern or terrorists, based on international frameworks and United Nations Security Council resolutions. The Showa Denko Group has independently developed its own in-house export control system and takes measures to ensure thorough compliance with Japan's Foreign Exchange and Foreign Trade Act and with its own in-house control rules.

In accordance with the security export control rules, the Security Export Control Committee plays a leadership role for the entire Group in the area of export controls. Each business section and research section conducts careful examination\*2 of all products and technologies for export, in consultation with the Security Export Control Committee. The person engaged in export in each section participate proactively in a training program consisting of in-house workshop, e-learning, outside training sessions, and practical skills certification exams to improve levels of control.

As a result of strenuous efforts for export control in 2008, there was no case of violation of the Foreign Exchange and Foreign Trade Act.

**\*2 Showa Denko Group examination**

The following three points are considered particularly important aspects of control:

- ① Judging with certainty whether items require authorization
- ② Clearly determining how the items are to be used
- ③ Investigating whether customers have any ties to those seeking to manufacture nuclear or other weapons

# Responsible Care Management

## \*1 Responsible Care

"Responsible Care" is the chemical industry's global voluntary initiative, representing a commitment to work together to continuously improve the environmental, health, and safety performance of chemicals over their entire life cycles, namely, the development, production, distribution, use, final consumption and disposal.



## \*2 16 Group companies

Tsurusaki Kyodo Doryoku, Tokyo Liquefied Oxygen, Showa Titanium, Shinshu Showa, Showa Denko Packaging, Showa Aluminum Can, Showa Denko Sakai Aluminum, Showa Denko Electronics, Showa Engineering, Showa Highpolymer, Showa Denko Kenzai, Union Showa, Niigata Showa, Showa Aluminum Can Recycling Center, HI-PACK, Showa Tansan

## Responsible Care Action Guidelines

Showa Denko enacted the Responsible Care\*1 Action Guidelines in 1995 as its corporate policy related to the environment, safety, and health and declared that it would implement Responsible Care. Since then, all business sectors of the Company have been engaged continuously in the relevant activities under these Guidelines. These activities also are being expanded throughout the entire Group.

In 2005 we signed the Responsible Care Global Charter, which contains international guidelines to Responsible Care activities, declaring our support for and intention to implement Responsible Care.

### Responsible Care Action Guidelines

- Throughout the entire life cycle of chemical substances, we shall make our best efforts to review and improve business activities from the viewpoints of ensuring safety and health and protecting the environment.
- In manufacturing activities, we shall make our best efforts to reduce the burden on the global environment not only through conventional approaches to environmental protection but also through promotion of switching raw materials, energy conservation, waste reduction and recycling, and reductions in the release of chemical substances.
- In the development of new products and businesses and in the establishment, enlargement, and renovation of facilities, we shall undertake our best efforts to ensure safety and health and to protect the environment.
- We shall promote R&D and develop technologies that will contribute to the improvement of safety and health and to the protection of the environment. We shall also promote the marketing of alternative or new products.
- We shall investigate the effects of the products and materials we handle on safety, health, and the environment, and we shall encourage our employees to develop a deep knowledge of safe use and handling and provide our customers with such information as well.
- In overseas business activities, technology transfer, and international trading of chemical products, we shall give full consideration to ensuring safety and health and to protecting the environment.
- We shall comply with international rules and domestic laws and regulations and make our best efforts to cooperate with the relevant international organizations and both foreign and domestic regulators.
- We shall participate proactively in various activities related to environmental protection and make our best efforts to communicate with society and local communities to achieve better understanding and trust.

## Responsible Care promotion system

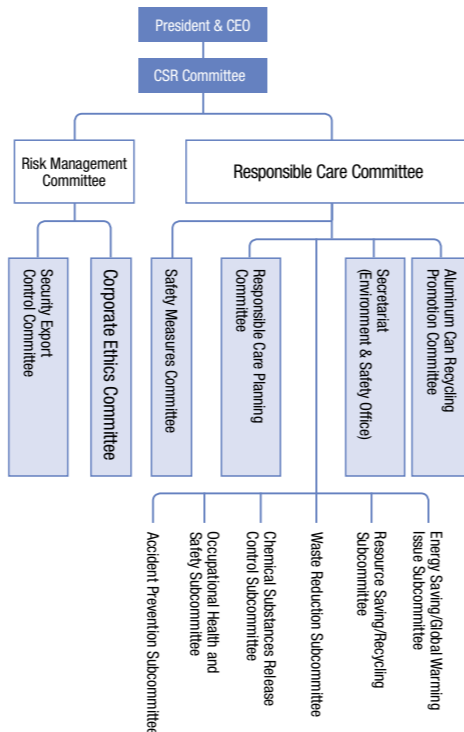
Responsible Care activities are promoted by the Responsible Care Committee, throughout the Showa Denko organization and throughout the Group.

As of June 2009, Responsible Care activities were conducted at the head office, six business sectors (12 business divisions and 14 regional offices), three branches, the Corporate R&D Center, and 16 Group companies\*2.

In addition, as part of its efforts to strengthen the Group's Responsible Care activities, Showa Denko is expanding the scope of such activities by ascertaining performance and providing on-site guidance concerning Responsible Care for domestic and overseas Group member companies involved in manufacturing, in addition to the 16 companies mentioned above.

In addition to establishing the new Risk Management Committee, the organizational reforms conducted in January 2007 placed the Responsible Care Committee beneath the CSR Committee, to promote Responsible Care as a key activity included in our CSR efforts.

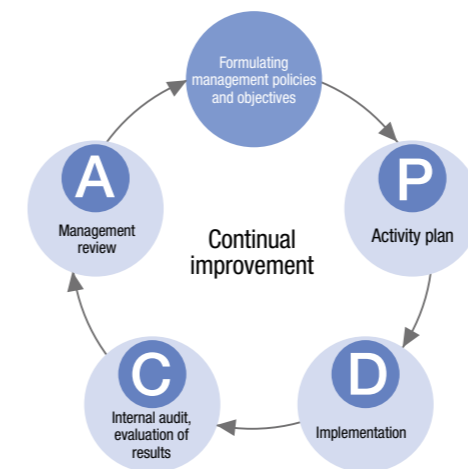
### Responsible Care promotion system



## The PDCA cycle

The Showa Denko Group works to achieve continuous improvement in its Responsible Care activities through the plan-do-check-act (PDCA) cycle of formulating Responsible Care activity plans (plan), implementing these (do), auditing and evaluating the results (check), and reflecting these via management review in the next round of objectives and activity plans (act).

### The PDCA cycle



Responsible Care Committee (June 2009)

## Auditing structure

The Showa Denko Group carries out the following audits at each stage, to confirm that activity plans concerning Responsible Care are implemented according to plan.

### Self-auditing

Using checklists, the workplaces of Showa Denko and 16 major Group companies evaluate their own Responsible Care systems and the status of its implementation, promoting

continuous improvements by reporting to the Safety Measures Committee on the results of these self audits and reflecting such results in objectives and activity plans for the following fiscal year.

### Workplace auditing

The Safety Measures Committee conducts on-site audits of the state of the efforts at respective workplaces described above, provides guidance as needed, and reports on the results of these audits to the Responsible Care Committee. The Responsible Care Committee examines these results and reflects them in companywide policies, objectives, and plans. At manufacturing companies within the Group, both in Japan and overseas, other than the above 16 companies, Responsible Care efforts are subject to onsite checking of their status and to on-site guidance.

### Overall auditing

The Audit Office audits the status of Responsible Care measures throughout Showa Denko and reports on the results of these audits to the Responsible Care Committee.

### Third-party verification

Showa Denko seeks third-party verification\*3 of its Responsible Care activities and the accuracy of its data collection methods. SGS Japan Inc. has verified the contents of CSR Report 2009. (See page 61.) We will continue to improve our Responsible Care system and its performance through third-party verification.



Workplace audit (Kitakata Plant)

## \*3 Third-party verification

The term refers to the verification by an independent organization to increase the reliability of activities and data of a company or association.

# Responsible Care Activities Plan

## Results in 2008 and policy/plans for 2009

Every two or three years, the Showa Denko Group establishes a medium-term Responsible Care activities plan, which is then used as the basis for annual action plans during the period covered. All workplaces promote Responsible Care and draft detailed action plans based on the comprehensive

plan, tailored to local conditions and circumstances. The following table lists the targets, achievements, and ratings for primary activities undertaken in 2008, together with plans for 2009. We will continue these efforts to achieve our goals.

◎ Fully achieved ○ Achieved 80% or more △ Achieved less than 80%

**\*1 Six designated types of gases**  
The following six types of greenhouse gases are covered: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

**\*2 Active safety**  
→ See page 57.

**\*3 REACH**  
→ See page 60.

**\*4 MSDS**  
This is a document provided by the supplier to the user (customer) of a chemical substance, covering such matters as its name, toxicity, and physical/chemical properties; cautions concerning its handling and storage; and emergency measures.

**\*5 GHS**  
This is a system for classifying the hazards and toxicity of chemical substances according to certain criteria, reflecting the results on labeling and MSDS, and using these to prevent accidents and protect human health and the environment.

**\*6 PRTR**  
→ See page 51.

	Subject	2008 targets	2008 plans	2008 results and progress	Rating	2009 policy/plans	Page
Environmental conservation	Environmental management	<ul style="list-style-type: none"> <li>Zero environmental problems</li> </ul>	<ul style="list-style-type: none"> <li>Continuing detailed investigations of legal responses</li> <li>Planning and implementing plans to reduce potential risks in existing operations</li> <li>Promoting ISO 14001 certification acquisition plan</li> </ul>	<ul style="list-style-type: none"> <li>Two environmental problems arose (phosgene leaks at Higashinagahara Plant)</li> <li>Provision of appropriate legal and regulatory information and careful examination of legal responses</li> <li>Decision made on efforts to prevent environmental problems in business lines</li> <li>Continuing soil improvement efforts at Higashinagahara</li> <li>ISO14001 certification attained at Chiba Plant</li> </ul>	△	[Policy] Zero environmental problems [Plans] <ul style="list-style-type: none"> <li>Steady implementation and comprehensive awareness of active safety efforts (utilizing checklists to prevent environmental problems)</li> <li>Planning and implementing reductions in potential risks</li> </ul>	P29 - 30 P47b 56
	Global warming initiatives	<ul style="list-style-type: none"> <li>Energy and resource conservation: unit energy consumption reduced to 80% or less</li> <li>Compliance with legislative amendments</li> </ul>	<ul style="list-style-type: none"> <li>Reducing energy consumption via production process reviews, optimization, equipment modifications, etc.</li> <li>Ensuring execution of the implementation plans</li> </ul>	<ul style="list-style-type: none"> <li>Unit energy consumption: 91.6% relative to 1990 levels, up 5.7% from 2007</li> <li>Implementation of regular reporting by respective worksites</li> </ul>	△	[Policy] Reducing unit energy consumption to 80% or less [Plans] <ul style="list-style-type: none"> <li>Creating energy conservation measures</li> </ul>	P48 - 49
		<ul style="list-style-type: none"> <li>Establishing Showa Denko Group's GHG emission reduction plans in compliance with the Kyoto Protocol; reducing six designated types of gases*1</li> <li>Compliance with legislative amendments</li> </ul>	<ul style="list-style-type: none"> <li>Steady efforts based on implementation plans for Kyoto protocol targets (reductions in six gases)</li> <li>Formation and partial implementation of other reduction plans</li> </ul>	<ul style="list-style-type: none"> <li>Greenhouse gas emissions: reduced by 7% vs. 1990 levels in the Showa Denko Group</li> <li>Plan developed for achieving Kyoto protocol targets (for Showa Denko alone)</li> <li>Head office building subjected to energy conservation assessment: scored highly at 140 kWh/m<sup>2</sup> (standard: 160)</li> <li>Energy consumption unit 2007 results and 2008 reduction plans for designated shippers reported to authorities</li> </ul>	◎	[Policy] Achievement of Kyoto protocol targets by the Showa Denko Group [Plans] <ul style="list-style-type: none"> <li>Implementing reduction plans at each site</li> </ul>	P7 - 8 P48 - 49
	Reducing industrial waste	<ul style="list-style-type: none"> <li>Reducing landfill waste Showa Denko: 1,800 t (9% relative to 1990 levels) Group companies: 1,400 t</li> </ul>	<ul style="list-style-type: none"> <li>Implementing waste reduction plans at each site</li> </ul>	<ul style="list-style-type: none"> <li>Landfill waste: 1,717 t at Showa Denko (down 728 t from 2007; 9% relative to 1990 levels); 1,341 t at Group companies (down 199 t from 2007); targets achieved</li> </ul>	◎	[Policy] Achieving zero emissions [Plans] <ul style="list-style-type: none"> <li>Eliminating landfill waste through efforts such as more effective use of sludge Showa Denko: 2,000 t or less Group companies: 1,300 t or less</li> </ul>	P55
		<ul style="list-style-type: none"> <li>Promoting recycling</li> </ul>	<ul style="list-style-type: none"> <li>Stable operation of the used-plastic-based ammonia plant</li> <li>Reducing paper waste at offices</li> <li>Aluminum can recycling: Group participation rate 100%, with each employee bringing in 100 cans over three months on the average.</li> </ul>	<ul style="list-style-type: none"> <li>Production of ammonia based on used plastic: up 38% from 2007</li> <li>Reduction in paper waste (head office): 2.6 t reduction from 2007</li> <li>Aluminum can recycling: Group participation rate 94%, with each employee bringing in 229 cans over three months on the average</li> </ul>	○	[Policy] Contributing to recycling-based society [Plans] <ul style="list-style-type: none"> <li>Promoting recycling</li> </ul>	P10, P40
Security and fire prevention	Equipment safety	<ul style="list-style-type: none"> <li>Zero equipment incidents</li> </ul>	<ul style="list-style-type: none"> <li>Better equipment reliability</li> <li>Enhancing the change management system</li> <li>Promoting voluntary safety initiatives</li> </ul>	<ul style="list-style-type: none"> <li>6 equipment incidents (up from 3 in 2007)</li> <li>Damage to tank storing hazardous materials, damage to high-pressure gas tank/leakage of ammonia liquor, damage to hydraulic-valve hose/ oil leak, damage to flexible hose due to unintended lorry start-up, etc.</li> <li>Oita Plant: four years continuous operation as certified high-pressure gas operation site</li> </ul>	△	[Policy] Zero equipment incidents [Plans] <ul style="list-style-type: none"> <li>Holding and utilizing active safety study meetings</li> <li>Enhancing the change management system</li> <li>Promoting voluntary safety initiatives</li> </ul>	P57 to 60
		<ul style="list-style-type: none"> <li>Comprehensive risk management</li> </ul>	<ul style="list-style-type: none"> <li>Utilizing active safety*2 study meetings</li> </ul>	<ul style="list-style-type: none"> <li>Active safety study meetings held four times</li> <li>Emergency earthquake early warning system installed</li> </ul>	◎		
Occupational safety and health	Occupational safety	<ul style="list-style-type: none"> <li>Zero lost-time injuries</li> </ul>	<ul style="list-style-type: none"> <li>Strong worksite focused on safety and training</li> <li>Addressing equipment and process deficiencies</li> <li>Stricter safety standards</li> </ul>	<ul style="list-style-type: none"> <li>Three incidents resulting in lost-time injuries (down from seven in 2007) and zero minor incidents (down from six in 2007)</li> <li>Frequency rate: 0.34</li> <li>Oyama Plant, Showa Aluminum Can Corporation's Oyama Plant, Showa Highpolymer Co., Ltd.'s Tatsuno Plant, and Showa Denko Electronics K.K. won external safety awards</li> <li>Omachi Plant secured Occupational Safety and Health Management System accreditation, while six other sites began preparations for accreditation</li> </ul>	○	[Policy] <ul style="list-style-type: none"> <li>Zero lost-time injuries</li> <li>Build up the best safety management system in the chemical industry</li> </ul> [Plans] <ul style="list-style-type: none"> <li>Strong worksite focused on safety and training</li> <li>Addressing equipment and process deficiencies</li> <li>Stricter safety standards (expanding attainment of Occupational Safety and Health Management System accreditation)</li> </ul>	P58 - 59
		<ul style="list-style-type: none"> <li>Zero work-related illnesses</li> </ul>	<ul style="list-style-type: none"> <li>Enhancing sanitation management structure</li> <li>Improving work environment and work methods</li> </ul>	<ul style="list-style-type: none"> <li>Zero work-related illnesses</li> </ul>	◎	[Policy] Zero work-related illnesses [Plans] <ul style="list-style-type: none"> <li>Enhancing sanitation management structure</li> <li>Improving work environment and work methods</li> </ul>	P58 - 59
	<ul style="list-style-type: none"> <li>Promoting Showa Denko Group Health 21 Plan</li> </ul>	<ul style="list-style-type: none"> <li>Implementing the Health 21 Plan at sites</li> </ul>	<ul style="list-style-type: none"> <li>Implemented preventive activities against lifestyle-related diseases in accordance with Showa Denko Group Health 21 Plan</li> <li>Responded to legal framework for specific medical examinations and specific health guidance</li> <li>Presented successful cases at worksites and implemented training sessions by public health nurses and nurses</li> </ul>	◎	[Policy] Promoting Showa Denko Group Health 21 Plan [Plans] <ul style="list-style-type: none"> <li>Enhancing health support system</li> <li>Mental-healthcare efforts at worksites</li> </ul>	P46	
Chemical substance safety	Chemical substance management	<ul style="list-style-type: none"> <li>Zero accidents/incidents involving chemical substances or violations of chemical substances legislation</li> </ul>	<ul style="list-style-type: none"> <li>Stronger emphasis on chemical management</li> <li>Handling REACH*3 pre-registration</li> </ul>	<ul style="list-style-type: none"> <li>Zero accidents/incidents involving chemical substances or violations of chemical substances legislation</li> <li>Promoted MSDS*4 amendments in accordance with GHS*5</li> <li>Chemicals Management Officer provided information on relevant legislation and follow-up training</li> <li>REACH pre-registration completed by the deadline</li> </ul>	◎	[Policy] Zero accidents/incidents involving chemical substances or violations of chemical substances legislation [Plans] <ul style="list-style-type: none"> <li>Comprehensive implementation of compliance, education, and management structures</li> <li>Collecting, assessing, and providing safety information (REACH compatibility, etc.)</li> </ul>	P60
		<ul style="list-style-type: none"> <li>Reduced chemical emissions (at least 10% per year)</li> </ul>	<ul style="list-style-type: none"> <li>Firmly implementing voluntary emissions reduction programs</li> </ul>	<ul style="list-style-type: none"> <li>Emission of PRTR*6 listed substances: 345 t, down by 85 t from 2007; target achieved</li> <li>Emissions of toxic atmospheric pollutants: 62 t, down by 44% from 2007; target achieved</li> </ul>	◎	[Policy] Reducing chemical emissions [Plans] <ul style="list-style-type: none"> <li>Developing and implementing reduction plans for each worksite</li> </ul>	P51 to 54
Quality assurance	Quality assurance	<ul style="list-style-type: none"> <li>Products that offer total safety in use</li> </ul>	<ul style="list-style-type: none"> <li>Strong emphasis on product safety (no product-related accidents)</li> <li>Strong emphasis on compliance</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of zero product-related accidents thanks to stronger emphasis on product safety and greater authority by product safety screening unit, etc.</li> <li>Continuation of zero compliance problems thanks to stronger emphasis on laws, regulations, and in-house quality rules (in particular, change management) through quality inspections</li> </ul>	◎	[Policy] <ul style="list-style-type: none"> <li>Products that offer total safety in use</li> <li>No product accidents, no major complaints</li> </ul> [Plans] <ul style="list-style-type: none"> <li>Securing product safety (comprehensive risk management focused on changed products, new products, and ones not addressed for some time)</li> <li>Raising the bar on quality assurance and quality control (increasing the effectiveness of management systems)</li> <li>Strong emphasis on compliance</li> </ul>	P35 - 36

(Figures shown are for Showa Denko alone)