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# 2010 Our Commitment to CSR Environmental and Social Report



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# **Editorial Policies**

- . In this, our 9th report to our stakeholders, we have emphasized both readability and ease of understanding.
- In fiscal 2006, we introduced Nippon Shokubai's commitment to corporate social responsibility, through which we have sought to enhance our relationship with society.
- · As an objective third-party evaluation of this report, we present the results of our Responsible Care evaluation at the end of this report.

# **Scope of This Report**

# Organization

### NIPPON SHOKUBAI CO., LTD.

Osaka Office, Tokyo Office Kawasaki Plant, Himeji Plant, Suita Plant, Advanced Materials Research Center, Strategic Technology Research Center, Superabsorbents Research Center, Fine & Specialty Chemicals Research Center, E & I Materials Research Center, Catalysts Technology Research Center Process Technology Center (Unless otherwise stated, all data on business performance refers solely to Nippon Shokubai Co., Ltd.)

### Main Group Companies

In Japan

Nippoh Chemicals Co., Ltd., Nippon Polyester Co., Ltd., Tokyo Fine Chemical Co., Ltd., Chugoku Kako, Ltd., Nippon Polymer Industries Co., Ltd., Nihon Jyoryu Kogyo Co., Ltd., NIPPON NYUKAZAI CO., LTD.\*, Nisshoku Butsuryu Co., Ltd. \* Included in the report beginning fiscal 2009.

# Outside Japan

NA Industries, Inc. PT.NIPPON SHOKUBAI INDONESIA NIPPON SHOKUBAI EUROPE N.V. Singapore Acrylic Pte Ltd. / Singapore Glacial Acrylic Pte Ltd. NISSHOKU CHEMICAL INDUSTRY (ZHANGJIAGANG) CO., LTD.

Reporting period: April 1, 2009–March 31, 2010 (The reference period for some topics mentioned in this report extends beyond March 31, 2010.) Publication date: June 2010 Scheduled publication date of next issue: June 2011

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# Message from the President



### The Nippon Shokubai Group's commitment to CSRfocused management

In commemorating our 50th anniversary in 1991, the Nippon Shokubai Group adopted the corporate philosophy of "TechnoAmenity - Providing value and comfort to people and society, with our unique technology." In implementing this philosophy, we are actively engaged in CSR-focused management as defined by our four management principles, which emphasize conducting all of our corporate activities based upon a deep respect for humanity, coexisting with society, and working in harmony with the environment.

Beginning last year, the Japanese chemical industry has been impacted by a series of explosions and fires, and the issue of product quality became a public concern. As a manufacturer, our mission is to ensure safety, quality, and environmental protection according to our stated principle that "Safety takes priority over production." Without a doubt, a positive public perception, as well as compliance with laws and regulations, are intrinsic to our business. We are determined to conduct our business by responding appropriately to the increasingly stringent demands of society under our corporate philosophy of "TechnoAmenity."

### Strengthening our Responsible Care activities: The pillar of our CSR-focused management

Nippon Shokubai was one of the earliest members of the Japan Responsible Care Council (JRCC), which was founded in 1995. Consequently, we have been actively implementing Responsible Care (RC) activities as the centerpiece of our CSR-focused management.

- Our highlights for fiscal 2009 are as follows:
- · we conserved energy by safely operating advanced equipment for the production of acrylic acid and ethylene oxide
- · we initiated our full-scale sustainability review project with a primary focus on reducing greenhouse gas emissions; and
- · we diligently initiated procedures for registering our principal products under the European REACH chemical regulations.

### Dedicated to providing new value through innovative technologies

We undertook a thorough review of our entire business plan in response to the sudden and serious recession that emerged as a result of the global financial crisis in the autumn of 2008. As a result, in fiscal 2010 we initiated "TechnoAmenity 2015," our new medium- and long-term business plans. Under these plans, we remain committed to evolving as a chemical company that provides new value through innovative

# Gaining the full confidence of the public while contributing to the sustainable development of society through CSR-focused management

technologies according to our corporate philosophy of TechnoAmenity. Moreover, we will continue striving to develop new technologies while strengthening our core technologies. We will also improve our competitiveness with the imminent launch of our core Electronic & Information Materials Business and by starting new businesses without delay. We will also strengthen our competitiveness by introducing innovations that reduce the costs of our existing businesses. At the same time, we will develop innovative technologies that enable us to obtain materials from non-fossil-based sources in order to conserve energy and reduce carbon dioxide emissions.

# Initiatives of our 7th Medium-term RC Promotion **Basic Plan**

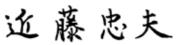
Beginning in fiscal 2010, we are implementing the 7th Medium-term RC Promotion Basic Plan that will serve as the foundation of our RC activities. This newly adopted plan is based on our new medium- and long-term business plans. Fiscal 2012 marks the closing year of the 7th plan, and is coincidentally the final year of the Kyoto Protocol; therefore, we will be switching to a post-Kyoto Protocol approach in 2013. During this three-year period, we will facilitate the development of innovative technology and improve our systems with an eye on the imminent arrival of the post-Kyoto Protocol era. In addition, through our energy-saving initiatives and other efforts, we are steadily reducing our energy intensity as well as our carbon dioxide emission intensity.

Placing priority on close coordination with the domestic and international member companies of the Nippon Shokubai Group, we are working to meet our global targets and plans regarding environmental preservation, process safety and disaster prevention, chemical safety, quality, occupational safety and health, and communication with society.

Going forward, Nippon Shokubai will create value by responding carefully to social needs and changes; moreover, we will enrich our CSR initiatives by focusing on RC activities in order to contribute to the emergence of a recycling society and global environment preservation.

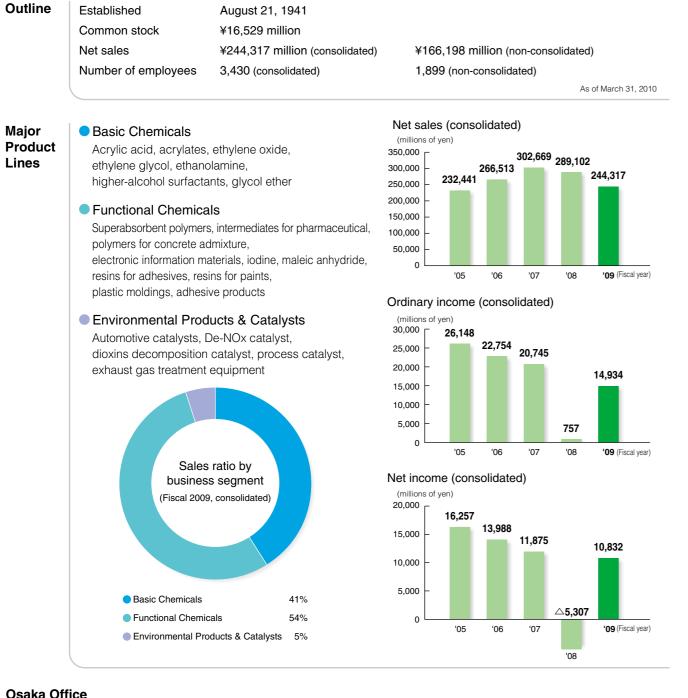
In this report, we introduce both the RC activities and CSR initiatives of the Nippon Shokubai Group. We welcome your continued support and frank opinions, and we greatly appreciate your cooperation with our initiatives.

June 2010



Tadao Kondo, President

# Profile of the Nippon Shokubai Group



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# Main Plants and Research Centers:

Himeji Plant, Kawasaki Plant, Suita Plant, 6 Research Centers, Process Technology Center

# **Group Companies:**

<In Japan>

Nippoh Chemicals Co., Ltd \*, Nippon Polyester Co., Ltd \*, NIPPON NYUKAZAI CO., LTD.\*, Nisshoku Butsuryu Co., Ltd.\*, Tokyo Fine Chemical Co., Ltd.\*, Chugoku Kako, Ltd.\*, Shinritsu Co., Ltd.\*, Nihon Jyoryu Kogyo Co., Ltd.\*, ICT Co., Ltd.\*, Nippon Polymer Industries Co., Ltd., Japan Composite Co., Ltd.

# <Outside Japan>

NA Industries, Inc.\*, NIPPON SHOKUBAI (ASIA) PTE LTD\*, PT.NIPPON SHOKUBAI INDONESIA\*, NIPPON SHOKUBAI EUROPE N.V.\*, Singapore Acrylic Pte Ltd.\*, Singapore Glacial Acrylic Pte Ltd.\*, NISSHOKU CHEMICAL INDUSTRY (ZHANGJIAGANG) CO., LTD.\*, American Acryl L.P., LG MMA Corporation, SINO-JAPAN CHEMICAL CO., LTD.

# **Our Product Lines**

# Nippon Shokubai — A Part of Your Daily Life





Superabsorbent polymers are used in sanitary goods such as disposable diapers.

Acrylates are used as ingredients in eco-friendly water-soluble paints.







various detergents.

Catalysts are used for vehicle emissions control and for decomposing dioxins generated by incinerators.

Higher-alcohol surfactants and water-soluble polymers are used as ingredients in

(\* Consolidated subsidiaries)

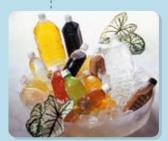




Acrylic resins for optical materials and polymers for color resists are used in energy-efficient LCD TVs.



Acrylic acid derivatives are used as core materials in golf balls.



Ethylene glycol is used as a raw material in the manufacture of recyclable PET bottles.

In April 2006, we established a CSR implementation structure that includes our CSR Management Committee. We have modified part of our corporate philosophy and management philosophy in order to clarify those management policies that concern our social responsibility.

On January 1, 2007, we established the Nippon Shokubai Corporate Behavior Charter as a behavioral guideline to ensure we conduct our business according to the principles of compliance and personal responsibility. We intend to further promote our CSR initiatives in the future.

# **Corporate Philosophy**



Providing value and comfort to people and society, with our unique technology

# Management Philosophy

We will conduct all of our corporate activities based upon a deep respect for humanity.

We will aim at coexisting with society, and working in harmony with the environment.

We will pursue innovative technology.\*

We will act on the global stage.\*

\* Modified under "TechnoAmenity 2015," the long-term business plan we adopted in fiscal 2010.

# Nippon Shokubai Corporate Behavior Charter

In the belief that it is our social responsibility to conduct business based upon the principles of compliance and self-responsibility for the sake of proper social development, we have set forth the following basic corporate behavior guidelines as the "Nippon Shokubai Corporate Behavior Charter."

- 1. Guided by our Corporate Philosophy of "TechnoAmenity," we will conduct all of our actions as a good corporate citizen.
- 2. We will comply with relevant laws both inside and outside of Japan, and act in accordance with in-house regulations.
- 3. We will create and nurture a sound, vibrant workplace, where each individual can hone their professional competence and find fulfillment in their career
- 4. We will develop and market products and services that are both safe and useful, based upon an accurate understanding of social demands.
- 5. We will commit ourselves to eliminating labor hazards and accidents, and constantly strive to protect the global environment
- 6. We will conduct business based on fair and open competition.
- 7. We will take a firm stance when dealing with unlawful or antisocial groups.
- 8. We will ensure frequent communications with our shareholders and members of society in general, and guarantee the appropriate disclosure of corporate information.
- 9. With respect for the culture and customs of every nation/region we serve, we will contribute to their development and wellbeing through community-based business undertakings.
- 10. We will ensure the solid and sustainable development of the company through business undertakings based soundly upon the above action guidelines.

# How We Define CSR

Based on our corporate philosophy "TechnoAmenity," Nippon Shokubai embraces our corporate behavior comprehensively from economic, environmental and social perspectives, while citing the following six areas as priority management topics: Corporate Ethics, Responsible Care (RC), Human Rights & Labor, Information Disclosure, Social Contribution and Corporate Governance. In each of the aforementioned topics, we pledge to implement appropriate measures toward all stakeholders while strengthening our competitiveness, enhancing our corporate value, in order to accomplish sustainable development.



# **CSR Implementation Structure**

In an effort to embody our CSR management with a high degree of effectiveness, the CSR Management Committee, chaired by the president, provides overall coordination while carrying out inspections and monitoring the implementation of the policies, and action plans as well as the achievements of each committee.



[Corporate Philosophy] <b>DECEMBENT OF CONTROL OF CONTRO</b>	Delian
[Priority Management Topics] 1. Corporate Ethics 2. Responsible Care (RC) 3. Human Rights & Labor 4. Information Disclosure	Policy Inspection Auditing CSR Management Committee RC Promotion Committee Compliance Committee
5. Social Contribution 6. Corporate Governance	Disclosure Committee CSR Promotion Office
Strengthening the competitiveness of the company Enhancement of the corporate value Sustainable development of the company	

	 Determines overall policy for CSR initiatives.
	 Determines overall policy for RC activities and implements the PDCA cycle.
	 Determines comprehensive policies for corporate ethics and implements the PDCA cycle.
mittee	 Implements the PDCA cycle related to information disclosure in an effort to enhance communication with society.
Office	 Establishes a CSR implementation structure and implements the PDCA cycle for social contribution initiatives.

Shokubai's Nippon

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CSR

# **Corporate Ethics**

In order to further improve and strengthen our company-wide corporate ethics and compliance systems, our Compliance Committee instituted changes to the Corporate Philosophy and Management Philosophy, established the Nippon Shokubai Corporate Behavior Charter, and drew up the Nippon Shokubai Corporate Ethics Guidebook. For fiscal 2009, we have planned a variety of initiatives to further solidify our corporate ethics and support thorough compliance.

### Corporate Ethics Internet Portal

In April 2009, we introduced a corporate ethics Internet portal on our in-house intranet titled "Understanding Corporate Ethics." This site makes available a variety of related documents such as the Japanese Antitrust Law and the Subcontract Act, web links to related laws, and a FAQ section. This site enables us to provide the latest information in a timely manner following the revision of laws and regulations.

We compiled the Nippon Shokubai Corporate Ethics Guidebook to serve as a concrete behavioral guideline based on the Nippon

Shokubai Corporate Behavior Charter. To help raise awareness, we



Corporate Ethics Guidebool

# • Training in Specific Laws and Regulations

# Understanding contracts

We provided basic training in understanding contracts. This training was provided on six occasions to 150 employees, most of whom were from the sales and purchasing departments. As part of this training, employees learned about the importance of concluding a contract and the significance and risks of major contract provisions such as patent guarantees, quality assurance, and product liability. Group discussions enabled participants to gain a deeper understanding of the issues.



### Training committee report on specific laws and regulations

A report session was held to inform executive officers and directors regarding the implementation of training in specific laws and regulations. This presented these personnel with an opportunity to reaffirm our current status and address prominent issues as well as risk management related to laws, regulations, and contracts.



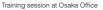
# Corporate Ethics Training

Corporate Ethics Guidebook

distributed it to all employees.

We provided training in corporate ethics for our mid-career employees. Outside lecturers conducted group training and imparted the latest information on compliance requirements, complying with laws as part of one's everyday duties, and preventing misconduct as an organization. A total of 18 training sessions with over 350 employees were held in our Osaka and Tokyo offices and at offices in our Himeji, Kawasaki, and Suita districts. In fiscal 2010, we are scheduled to conduct corporate ethics training for managers, and we will hold daily awareness campaigns related to corporate ethics in the workplace.





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Training session in Himeji district



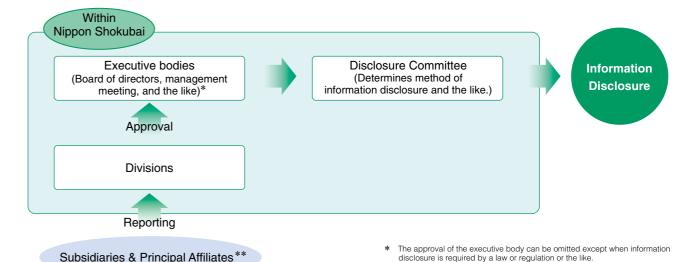


Training session in Kawasaki district

# Information Disclosure

In order to fulfill our social responsibility and ensure full management transparency while promoting a better understanding of our company among all stakeholders, we shall fairly disclose relevant corporate information regarding Nippon Shokubai, our subsidiaries, and our major affiliates on a timely basis.

Flow of Information Disclosure





- disclosure is required by a law or regulation or the like \*\* Includes direct subsidiaries as well as subsidiaries of principal affiliates

# **Contributing to Society and Earning Public Trust**

# **Social Contribution**

In order to impart a deeper understanding of our company, we strive to actively communicate with all stakeholders through environmental preservation initiatives, involvement in local communities, and by supporting the development of the next generation. We contribute to society by focusing on maintaining harmony with society and the local community through our business activities.

# **Our Policy on Social Initiatives**

Based on our corporate philosophy of TechnoAmenity, we shall implement initiatives focused on benefitting and increasing the prosperity of our stakeholders, including local communities, while maintaining good communication with society as a good corporate citizen

# **Environmental Preservation Initiatives**

### Forest Development Initiatives

In an effort to help mitigate the threat of global warming, which presents a challenge for the 21st century, we are promoting our forest development initiative among employees who participate as volunteers in forest protection and regeneration.

## Contributing to Our Forests and Water Resources

The Akasai Valley is part of the headwaters of the Ibo River, which faces our Himeji Plant. In order to enhance conservation of the headwater forest that extends to that area, we are undertaking maintenance work in order to leave a beautiful forest for future generations. This initiative also enables us to expand our ties with local residents.

Location: Akasai Valley, Hara-chinai, Haga-cho, Shiso-shi, Hyogo prefecture

Activity: Forest improvement and forest tours and the like Start date: November 2008









\* These activities were undertaken in cooperation with National Land Afforestation Promotion Organization and NPO



Acknowledging the serious problem of global desertification, we are working to prevent desertification in inland China. We are planting trees with local residents and intend to restore the forest throughout the area where it once existed on this land.

Location: Ejin Horo Banner, Inner Mongolia Autonomous Region, China Activity: Afforestation, maintenance, management, and the like Start date: October 2008







Photos taken in October 2009

# Conserving and Popularizing the "Nojigiku" Chrysanthemum

In order to rescue, conserve, and popularize the endangered "Nojigiku" chrysanthemum, the Hyogo prefectural flower, we began cultivating it in 1972. We have been distributing seedlings every year since 1974 in cooperation with Hyogo Prefecture. In April 2009, we distributed 43,000 seedlings to 340 organizations, including local governments.

Today, 160 varieties of Nojigiku, including foundation stock, have been conserved and cultivated in a 2,000-square-meter green yard at the Himeji Plant.

# Assisting the Community



Cleanup Campaign



Tsujido Beach cleanup at the Kawasaki Plant

#### Sweet Potato Harvest Party

We grow sweet potatoes in the potato fields we have created in the green yard of our Himeji Plant. Each year in October, we invite

neighborhood kindergartners to enjoy harvesting sweet potatoes. Recently, about 540 parents and children visited together. We have been holding this activity since 1971 and it has become rooted in the community. In fact, some of the children who harvested potatoes in the past are now employed with us.

Plant Tours

experiment using our products.



Kindergartners harvest potatoes

# **Initiatives to Help Raise Future Generations**





The Chemical Society of Japan held the "Chemical Club" tour at

Himeji Plant in August 2009, bringing together elementary and

junior high school students from Hyogo prefecture who applied for

the tour. Following the plant tour, our staff helped them perform an









Seedlings being distribute

We participate in regular community cleanup campaigns. The Kawasaki Plant, together with affiliates, participates in the Tsujido Beach cleanup in Kanagawa prefecture. The Suita Plant participates in the riverbed cleaning effort along the Kanzaki River as part of the Kanzaki River Adopt-a-River Program. We are also collaborating with community beautification activities.

## Volunteer Initiatives

Employee volunteers participate in events held at the Nukachan Welfare Workshop (a facility for the disabled) located near the Himeji Plant. We hope to

further expand our circle of volunteerism in the future.



Christmas part

# Science Booth

We staffed a science booth at the Sakurayama Park Festival in November 2009 at the Himeji City Science Museum, which organized the event. We helped mainly elementary and junior high school students participate in chemical experiments with our superabsorbent polymer. All who attended clearly enjoyed the thrill of working with chemistry.



# **Our Relationship with Our Employees**

We are committed to maintaining a healthy work environment and respecting the human rights of each of our employees. We support all our employees by providing a positive working environment that contributes to a high level of job satisfaction.

# An Environment That Contributes to Job Satisfaction

We seek to revitalize our employees and the organizations as the foundation for achieving our medium- and long-term business plans. With the understanding that responsibility for oneself equates to self-direction, and with the goal of forming a corporate structure with the dynamic flexibility to respond quickly to changing times, we are striving to design and manage a system framework that can develop autonomous workers and awaken the ambitions of individual employees.

### Human Resources Management System

We have introduced a human resources management system based on management by objectives, which is applicable to all employees, and we are creating a substantial system that is both open and transparent.

#### 1. Basic approach

- Create a substantial system that is both open and transparent.
- Implement a fair employee reward mechanism based on roles, performance, and competency.
- Structure a system capable of responding to diverse values.

#### 2. Framework

- Multiple avenues to rewards
- (Rewards can be accrued for performance or for demonstrated skills and proficiency.)
- · Clarification of job grade criteria and evaluation criteria
- (Roles and required performance and competency are specified.) · Feedback focused on human resources development
- (Advice is provided according to management by objectives and an appropriate evaluation system.)

# A Positive Working Environment

## Human Resources Development

- 1. Personnel objectives
- · Independently minded personnel capable of taking the initiative in identifying and resolving issues
- · Personnel capable of flexibly adapting themselves and their organizations
- Personnel capable of demonstrating sophisticated expertise
- · Personnel capable of working with a diverse international community
- 2. Characteristics of the human resources development system
- · Development according to section
- Emphasis on improving organizational and management skills, level of expertise, and competency by section
- Self-directed development
- Emphasis on self-directed development to boost career development
- Development according to corporate hierarchy Emphasis on strengthening management leadership

In an effort to provide our employees with the opportunity to achieve "the good life," we offer a wide-ranging employee welfare system for the benefit of our employees and their families. This initiative includes wealth building, emergency preparedness, support for daily life activities, planning for a stable retirement, positive use of personal time, and maintenance of health and wellness. Our company will continue to support a good life for our employees through self-help as we enter the era of a low birth rate and an aging population.

## Supporting the Positive Use of Personal Time



We advise our employees on the positive use of their time away from work by offering guidance in maintaining a balanced work, family, and social life, thus contributing to life enrichment.

# Refreshing Our Employees Through Exercise

The need to acquire good lifestyle habits and practice them on a regular basis is well known. This approach prevents the development of lifestyle-related diseases and avoids the need for therapy that targets symptoms after a disease gains a foothold.

We promote exercise activities on a regular basis to refresh our employees and help them enjoy a fully energized daily life. This effort seeks to further suppress the emergence of lifestyle-related diseases while maintaining employee physical fitness. This initiative includes physical strength measurements and participation in various sporting events and walking exercises.

### Re-employment System

This system corresponds to measures addressing the rescheduling of full pension eligibility age and is intended to help stabilize the lives of retired employees through re-employment. The period of employment is up to the beginning of the employees' eligibility for full pension. This initiative contributes to an employee's sense of security and worth, as it provides employment in a familiar work environment.

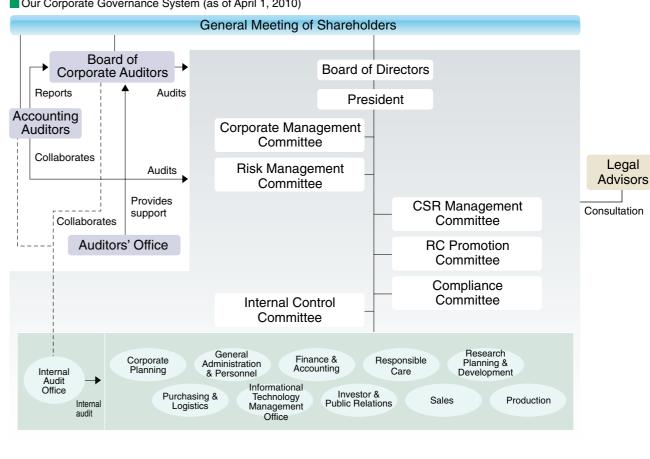
# Toward a Sound Labor-Management Relationship Based on Mutual Respect

Nippon Shokubai and the Nippon Shokubai Labor Union maintain a dialogue based on mutual respect. Through our good labormanagement relationship based on mutual understanding and trust, we are addressing the resolution of various issues and achievement of goals through cooperation. Under the union shop agreement, all our employees - except for managers - are required to join the union.

# **Corporate Governance**

We are working to improve our corporate culture and strengthen our competitiveness in order to respond to global trends. Our approach to corporate governance therefore establishes our foundation. Using the system illustrated in the following diagram, we are taking steps to revitalize our board of directors, strengthen our audit system, improve the efficiency of our management structure, and improve and strengthen our compliance system.

### Our Corporate Governance System (as of April 1, 2010)



#### **Board of Directors**

Supervises the execution of duties of each director and reports, deliberates on, and resolves matters related to execution of duties. In general, the board of directors convenes monthly.

### **Corporate Management Committee**

As an advisory body to the president, this committee deliberates on basic manag policies and related matters. It also consults on the execution of important divisional matters.

#### **Board of Corporate Auditors**

Comprising two external auditors and two internal auditors, this board convenes monthly in general submits reports, and engages in discussions and deliberations on important

# Internal Control Committee

**Compliance Committee** 

to which the company is exposed

This committee, in full operation since April 2008 under the chairmanship of the president, has established a system to ensure the reliability of financial reporting as enforced by the Financial Instruments and Exchange Act. It also seeks to process company operations more efficiently and effectively.

#### **Risk Management Committee**

Chaired by the president, this committee implements periodic measures in response to various wide-ranging risks

#### CSR Management Committee

Chaired by the president, this committee determines the company's CSR direction and promotes CSR initiatives that contribute to the interests of stakeholders while maintaining coordination with the other commit

#### **RC Promotion Committee**

Chaired by the president, this committee promotes the company's Responsible Care activities. It formulates the RC Promotion Basic Plan and works to further improve safety, quality, and environmental issues

Chaired by the president, this committee improves and strengthens the company's overall corporate ethics and systems for compliance with laws and regulations.

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**CSR** Initia

For the chemical industry, Responsible Care (RC) activities are very important contributors to sustainable development through their focus on health, safety, and environmental protection over the total product life cycle. At the same time, they help to increase the trust of society through dialogue.

Nippon Shokubai participated in the Japan Responsible Care Council (JRCC) at the time of its establishment in 1995. We have been actively promoting RC activities with a focus on our main pillars: environmental preservation; process safety and disaster prevention; occupational safety and health; chemical safety; guality; and communication with society. We are determined to continue gaining the trust of society with our group-wide RC activities by contributing to society and fulfilling our corporate social responsibility.

# **RC** Policy

In conformity with our Corporate Philosophy, Management Philosophy and the Nippon Shokubai Corporate Behavior Charter, we rank it as an important management measure to provide products and technologies that contribute to society and environmental protection. In addition, while paying due respect to the principle of Sustainable Development, we are determined to conduct all activities in accordance with the following policy related to environmental protection, safety and product quality that will bring our business operations into harmony with the global environment.

4	Aim at environmental preservation and reduction of negative environmental impact
	throughout the entire life cycle of a product, from development to disposal.

- Ensure the safety of our employees and our communities by targeting zero accidents and 2 zero disasters with a commitment to the principle "Safety takes priority over production."
- Confirm the safety of chemical materials, intermediates and products, and consider the 3 health of our customers, employees of our logistics subcontractors, our employees, and others.
- Stably supply products and associated services that meet customer satisfaction and 4 inspire their trust.
- Publicly announce the results of these activities and make an effort to communicate for 5 proper understanding.

We will implement this RC Policy in all our business operations by ensuring all employees have a thorough understanding and awareness of its importance. The president shall be the person with the ultimate responsibility for implementing this policy.

# **RC** Promotion Organization

The president is chairman of the RC Promotion Committee, and technical committees and sub-committees are established to promote company-wide RC activities.



# Results of RC Activities for Fiscal 2009

We began to implement our new medium- and long-term business plans in April 2010. Therefore, the results of the sixth medium-term RC Promotion Basic Plan have been generalized as the results of a single fiscal year (fiscal 2009).

The environmental preservation achievements for fiscal 2009 reveal that we lowered both our energy intensity and our CO2 emission intensity as a result of our energy conservation measures. We maintained our achievement of zero emissions in addition to reducing our emissions of substances subject to the PRTR Law by 47 percent.

In the area of occupational safety and health, we experienced three injuries with loss of workdays and three injuries without loss of workdays. During the period, we experienced no facility disasters, facility accidents, problems related to chemical safety or serious customer complaints regarding process safety and disaster prevention, chemical safety, or quality.

	Objectives for Fiscal 2009	
<ul> <li>To reduce energy intensity by 1% compared with level of preceding fiscal year</li> <li>To reduce CO₂ emission intensity by 1% compared with level of previous fiscal year</li> <li>To maintain zero emissions         <ul> <li>(Final disposal at off-site landfill) ≤ (Amount of waste generated ×</li> <li>Emissions of substances regulated under the PRTR Law: 78 tons (Reduced by 50% compared with the fiscal 2005 let)</li> </ul> </li> </ul>		•
Process Safety and Disaster Prevention	Zero facility disasters     Zero facility accidents	•
Occupational Safety and Health including contractors)	<ul><li>Zero injuries with loss of workdays</li><li>Zero injuries without loss of workdays</li></ul>	•
Chemical Safety • Zero problems related to chemical safety (legal or social)		•
Quality • To receive zero serious complaints		•
Communication with Society	<ul> <li>To maintain a dialogue with stakeholders and implement reasonable information disclosure</li> </ul>	•
Developing RC among Our Group Companies	Measures Common to Our Group Companies (1) Environmental Preservation • To reduce energy intensity • To reduce the amount of waste (international affiliates) • To reduce the amount of waste (international affiliates) • To reduce the amount of waste (international affiliates) • To reduce an emissions of PRTR Law covered substances (2) Process Safety and Disaster Prevention To achieve zero facility disasters and zero facility accidents (3) Occupational Safety and Health To achieve zero injuries with loss of workdays (4) Chemical Safety To achieve zero problems related to chemical safety (legal or social) (5) Quality To receive zero serious customer complaints (6) Communication with Society To maintain a dialogue with stakeholders and implement reasonable information disclosure (7) Management System To effectively manage risk assessments through EMS and OSHMS	
ote: Activated sludge is calculated before dehydration.	<ul> <li>Definitions: • Zero emissions: Reducing the quantity of waste subject to final (</li> <li>• Facility accident: Any problem accompanied by at least a two-day</li> <li>• Injury with loss of workdays: Injury requiring at least one day of (</li> <li>• Injury without loss of workdays: Injury requiring at least one day of (</li> </ul>	y shu med

# RC Training

No

To improve company-wide RC activities, we believe it is important to provide in-service RC training to employees by job rank. We emphasized enhancing our managers' understanding and awareness of RC activities first of all and carried out RC training programs for newly posted managers in fiscal 2008 and for assistant managers in fiscal 2009. To date, we have provided this training to 116 newly posted managers and 162 assistant managers. They now have a deeper understanding of the following:

• General RC • The importance of compliance with laws and regulations relevant to RC • The environmental safety activities of Nippon Shokubai Basic prevention of industrial accidents and facility accidents
 The roles of managers and supervisors related to RC

# Dialogue with the Local Community

In an RC dialogue with the local community in the Kawasaki district held by the Japan Responsible Care Council in December 2009, our Kawasaki Plant announced its initiatives regarding green distribution.



Evaluation: C Achieved Partially Achieved	ot Achieved
Results for Fiscal 2009	Self- evaluation
Reduced by 4% compared with the level of the previous fiscal year	
Reduced by 3% compared with the level of the previous fiscal year	
Zero emissions maintained.	
Emissions of substances regulated under the PRTR Law: 84 tons (Reduced by 45% compared with the fiscal 2005 level.)	
Zero facility disasters occurred.	$(\hat{\cdot})$
Zero facility accidents occurred.	
Three injuries with loss of workdays occurred.	$(\overline{\cdot},\overline{\cdot})$
Three injuries without loss of workdays occurred.	-
Zero problems related to chemical safety occurred.	
Zero serious complaints were filed.	
Our Kawasaki Plant participated in dialogue with the local community.	$(\overline{\cdot},\overline{\cdot})$
Instituted tours of our Himeji Plant.	-

Five of seven group companies reduced their energy intensity.
Waste subject to final disposal at off-site landfills was reduced by 6% compared with the level of the previous fiscal year.

Substances subject to the PRTR Law increased by 3% compared with the level of the

Zero facility disasters occurred. • Zero facility accidents occurred

Six injuries with loss of workdays occurred.

Zero problems related to chemical safety occurred.

One serious customer complaint was filed

One company is scheduled to introduce risk assessments through EMS in fiscal 2010. \*The results of Nippon Nyukazai Co., Ltd. were added for this fiscal year

posal at off-site landfills to less than 0.1% of the total amount of waste generated nutdown but with no impact on any third party dical treatment

Injury without loss of workdays: Injury requiring no loss of workdays for medical treatment

# Our 7th Medium-term Responsible Care Promotion Basic Plan (Fiscal 2010–12)

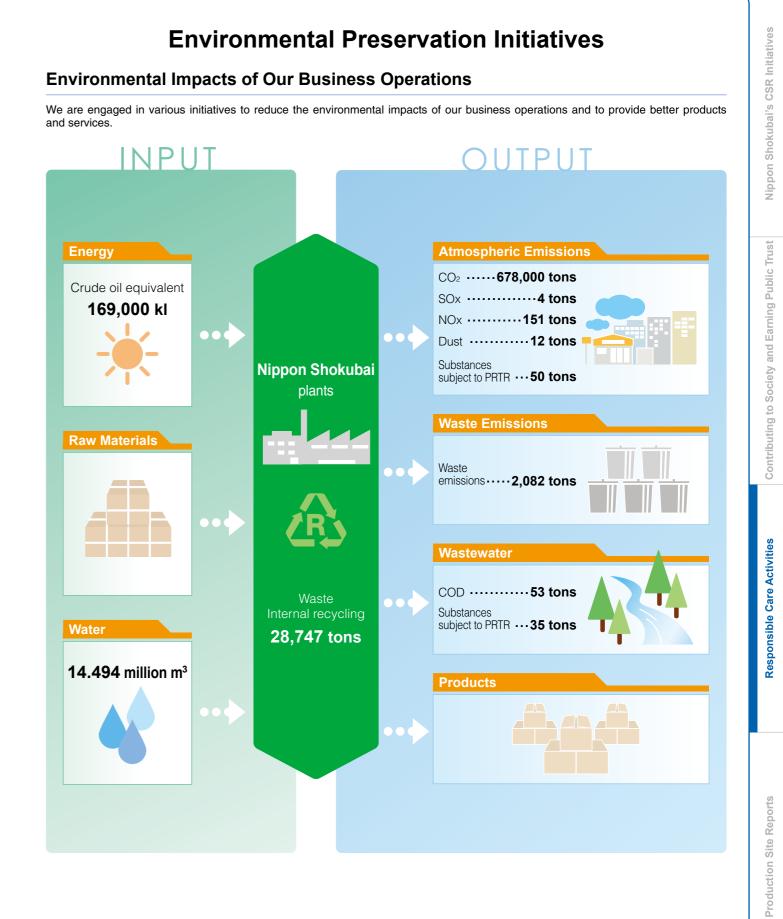
We launched our new medium- and long-term business plans in April 1. Concurrently, we are launching our 7th three-year medium-term RC Promotion Basic Plan — the basis of our RC activity — in fiscal 2010.

Because the number of accidental fires and explosions is growing, society is demanding greater process safety as a means of eradicating accidents and disasters. Moreover, our industry must fulfill its social responsibility to reduce environmental impacts, including the risk of global warming.

Our 7th RC Promotion Basic Plan will continue the work of the preceding plan to enhance our efforts to eradicate industrial accidents as well as facility accidents and disasters. We are also implementing environmental impact reduction activities targeting sustainable development. As well, we are maintaining our priority initiative to respond to customer needs by increasing customer satisfaction. We are also giving shape to our integrated management system for chemical products.

#### 7th Medium-term RC Promotion Basic Plan (Fiscal 2010–12)

	Targets	Priorities
Environmental Preservation	<ul> <li>To reduce energy intensity by 20% compared with level of fiscal 1990 (102.6 L/t)</li> <li>To reduce CO<sub>2</sub> emission intensity by 23% compared with level of fiscal 1990 (0.429 t-CO<sub>2</sub>/t)</li> <li>To maintain zero emissions (Final disposal at off-site landfill) ≤ (Amount of waste generated ×0.1%)</li> <li>Emissions of substances regulated under the PRTR Law: 77.5 t/year (Reduced by 50% from fiscal 2005 levels.)</li> </ul>	<ul> <li>Promote energy efficiency in order to reduce energy consumption and CO<sub>2</sub> emissions and examine additional ways to reduce CO<sub>2</sub> emissions in light of the imminent arrival of the post-Kyoto Protocol era.</li> <li>Promote waste reduction and reduced use of substances subject to the PRTR Law.</li> </ul>
Process Safety and Disaster Prevention	<ul> <li>Zero facility disasters</li> <li>Zero facility accidents</li> </ul>	<ul> <li>Reexamine the safety of production sites and technology.</li> <li>Promote continuous improvement with a process safety control system.</li> <li>Promote measures to increase the reliability of aging facilities.</li> <li>Promote risk reduction by enhancing change management.</li> <li>Strengthen process risk assessments (HAZOP, FMEA, etc.) and pass along safety design concepts and maintenance skills.</li> </ul>
Occupational Safety and Health (including contractors)	<ul> <li>Zero injuries with loss of workdays</li> <li>Zero injuries without loss of workdays</li> </ul>	<ul> <li>Promote continuous improvement by enhancing our occupational safety and health management system.</li> <li>Promote risk reduction in the workplace and create a pleasant and positive work environment.</li> <li>Improve the sensitivity of hazard prediction in order to prevent industrial accidents.</li> <li>Strengthen support of our contractors by improving communication.</li> </ul>
Chemical Safety	<ul> <li>Zero problems related to chemical safety (legal or social)</li> </ul>	<ul> <li>Respond to domestic and international regulations (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; GHS; REACH, etc.) and promote Global Product Stewardship (GPS).</li> <li>Train personnel by enhancing RC training and establish a total chemical management system.</li> </ul>
Quality	Zero serious quality complaints     Zero quality nonconformities*     *Involving a loss of at least ¥1 million	<ul> <li>Promote activities to prevent quality complaints and related issues.</li> <li>Strengthen the quality assurance system for functional products.</li> <li>Continuously implement quality training and quality awareness initiatives.</li> </ul>
Communication with Society	To maintain a dialogue with stakeholders and implement reasonable information disclosure	<ul> <li>Promote RC dialogue with the community, offer plant tours, and actively participate in local community activities.</li> <li>Disclose information to stakeholders on the status of RC activities on the corporate website and in the Environmental and Social Report.</li> </ul>
Developing RC among Our Group Companies	Measures Common to Our Group Companies (1) Environmental Preservation • To reduce energy intensity • To reduce the amount of waste (international affiliates) • To reduce emissions of PRTR Law covered substances (2) Process Safety and Disaster Prevention To achieve zero facility disasters and zero facility accidents (3) Occupational Safety and Health To achieve zero injuries with loss of workdays (4) Chemical Safety To achieve zero serious customer complaints (6) Communication with Society To maintain a dialogue with stakeholders and implement reasonable information disclosure (7) Management System To effectively manage risk assessments through EMS and OSHMS	<ul> <li>Improve the RC activities of Group companies by enhancing support actions such as RC interviews and RC reciprocal audits.</li> </ul>



# **Responsible Care Audits**

We undertake annual RC audits at each plant under committees comprising management-level employees.

These audits are intended to cover general RC activities as well as priority plant issues with the intention of upgrading these plants. The 37th annual audit took place in fiscal 2009, with audit results being reported to the RC Promotion Committee under the chairmanship of the company president. For each plant, we draft an improvement plan targeting the issues identified and implement the required activities. The priorities for the preceding five years are shown in the accompanying table; the main priorities for fiscal 2009 were a survey of the activities for passing on technologies and enhancing our approach to change management.

Fiscal Year	Priorities	Focus
2005	Status of implementation of handovers among departments regarding quality	Quality
2006	Environmental preservation initiatives focused on reducing environmental impacts	Environmental Preservation
2007	Initiatives to improve the safety culture	Process Safety and Disaster Prevention Occupational Safety and Health
2008	Initiatives to prevent accidents and the spread of damage	Process Safety and Disaster Prevention
2009	Initiatives to pass on technologies and enhance our approach to change management	Process Safety and Disaster Prevention Occupational Safety and Health

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# **Initiatives for Preventing Global Warming**

# **Promoting energy efficiency**

In an effort to achieve the goals of the Kyoto Protocol, the Japan Chemical Industry Association has set targets to reduce the energy consumption rate per unit of production ("energy intensity") to 80% of the fiscal 1990 level as an average value for the chemical industry for the period fiscal 2008-12. Nippon Shokubai has set a target for CO<sub>2</sub> emissions per unit of production ("emission intensity") as well as energy intensity by taking into account the Kyoto Protocol's target for reduction of CO2 emissions. Each of our plants has been focusing on energy efficiency initiatives in order to reduce CO<sub>2</sub> emissions.

In fiscal 2009, we were able to reduce our energy intensity by 4% and our CO<sub>2</sub> emission intensity by 3% from the fiscal 2008 levels.

# INTERVIEW

#### We have reduced our CO<sub>2</sub> emissions by tightly controlling the operation of our boilers.



I'm in the section that manages and operates the utilities of the entire plant. In 2007, we promoted energy efficiency by introducing high-efficiency boilers to supply steam. We were determined to achieve even greater energy efficiency, however, and in 2009 we began tightly controlling the operation of our boilers by adjusting the output to accommodate fluctuating demand for steam on an hourly basis, thereby reducing our energy consumption. As a result, we also succeeded in reducing our CO2 emissions.

Kenji Miyata Production Section, Suita Plant

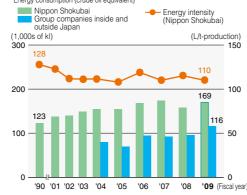
We were able to reduce energy consumption by 1,500 kiloliters of crude oil equivalent annually by effectively using the steam generated by our increased production of ethylene oxide.

In February 2007, we launched a project to increase production of ethylene oxide (EO); when this project concluded, we began commercial operation in February 2010. We have been diligent about using the steam generated in our existing facilities; more recently, we have expanded our advanced facilities, which are also designed to effectively use the steam for thorough heat recovery. As a result of our dedication to safe operation and by maintaining troublefree production in our Production Section on a daily basis, we were able to reduce energy consumption by 1,500 kiloliters of crude oil equivalent annually, thereby reducing CO2 emissions by 3,500 tons.

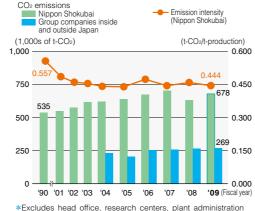


Production No.3 Section, Kawasaki Plant

# Trend in Energy Consumption



#### Trend in CO<sub>2</sub> Emissions



buildings and employee welfare facilities The amount of energy consumed and CO2 emissions in fisca 2009 totaled 3.600 kiloliters and 5.600 tons, respectively, for the head office, research centers, plant administration buildings, and employee welfare facilities of Nippon Shokuba

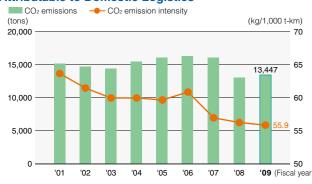
# **Initiatives for Eco-friendly Distribution**

# Promoting modal shift

As a global warming countermeasure in our logistics operations, we are implementing an emissions control plan in an effort to control air pollution and reduce CO2 emission intensity.

Although changing economic conditions can affect the amount of goods we ship and our CO<sub>2</sub> emissions, we are implementing initiatives to reduce CO<sub>2</sub> emission intensity. These include modal shift, improved transport efficiency, introduction of digital tachometers, and energyefficient vehicle operation such as minimized idling and the installation of energy-efficient tires. Furthermore, we are focusing on environmental considerations by increasing the use of tank containers adaptable to rail transport to accommodate the increased shipping volume of our main product line.

#### **Trend in CO<sub>2</sub> Emissions and Emission Intensity** Attributable to Domestic Logistics



As an air pollution control measure, we are promoting the switch to low-emission vehicles with high fuel economy that display certification stickers and that accommodate emissions regulations and ordinances as represented by Osaka Prefecture's Traffic Inflow Regulations.

vehicles





Switchover to low-emission eco-friendly

ntainers for our mai product line (EO) and container cargo packing equipment



By changing our shipping method toward bulk transport using Modal Shift railways and ships, we are optimizing our transport method to conserve energy and reduce our environmental impact.

# **Pollution Control Initiatives Targeting Air and Water**

# We introduced a high-performance activated sludge treatment system to accommodate increased production capacity.

To control air pollution, we are taking steps to reduce byproduct oil and consumption of fuel oil. At the same time, we are converting fuel sources to natural gas while monitoring our emissions of SOx, NOx and dust.

In addressing water pollution control, we are endeavoring to reduce the environmental impact (reduction in chemical oxygen demand, or COD) of our wastewater by recovering wastewater from the production process and reusing it. We have also installed an activated sludge treatment system, a waste liquid combustion furnace, and our own proprietary catalytic wet oxidation wastewater treatment system.

In addition, in fiscal 2009 we introduced a high-performance activated sludge treatment system that can stably treat even high loads of sludge. At the same time, we are seeking ways to reduce our total sludge disposal volume.

# INTERVIEW

#### We optimized procedures to prevent release of abnormal drain water.

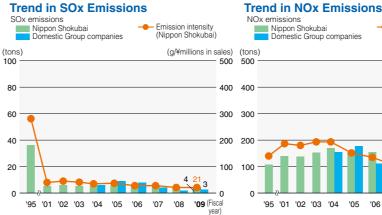


Environment & Safety Dept., Himeji Plant

We have increased the number of drainage channel sensors in order to prevent release of drain water outside the plant whenever the composition of drain water in plant drainage channels is found to deviate from our voluntary control standard. With this system, we can detect abnormalities early on. We have also improved our dispatch system for emergency response personnel. As a result, we can promptly identify the source location and undertake a rapid response. In addition, we have deployed a surface oil recovery pump at each drainage outlet in order to prevent the release of oil film in the event oil becomes mixed with the drain water.

In the future, we intend to review and improve our facilities and systems for protecting the environment of the Harima Sea.

#### **Trend in SOx Emissions**



# Trend in COD of Wastewater

 COD intensity (Nippon Shokubai) Nippon Shokubai (tons) (q/¥millions in sales) 200





Activated sludge treatment system

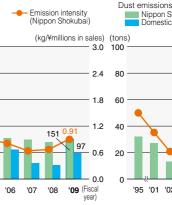


Waste liquid combustion furnace



Catalytic wet oxidation wastewate reatment system

## **Trend in Dust Emissions**



Nippon Shokuba — Emission intensity (Nippon Shokubai Domestic Group compar (q/¥millions in sales) 500 400 80 300 200 100 '95 '01 '02 '03 '04 '05 '06 '07 '08 'ng (Fiscal

Regarding the values agreed to by the city and prefecture, SOx emissions total 1/50th and dust emissions total 1/10th. NOx and COD totals are below the agreed values

Site

A hazardous air pollutant. This is a general term for sulfur oxides such SOx as sulfur dioxide (SO<sub>2</sub>) and sulfur trioxide (SO<sub>3</sub>), which are generated mainly from the burning of fossil fuels.

A general term for nitrogen oxides such as nitric oxide (NO) and nitrogen dioxide (NO\_2). These substances contribute to acid rain and NOx photochemical smog.

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# Waste Reduction Initiatives

### We are striving to reduce the amount of waste subject to final disposal at off-site landfills.

Addressing the need to reduce waste is a necessary initiative to support the emergence of a society committed to recycling. By achieving and continuing our initiative toward zero emissions (defined as "reducing the quantity of waste subject to final disposal at off-site landfills to less than 0.1% of total amount of waste generated"), we are promoting the sorting for collection and recycling of our waste. In fiscal 2009, we continued to implement our zero emissions policy by reducing the amount of waste generated through on-site treatment of production residues and by implementing thorough sorting for collection and recycling.



#### We recycle our waste oil.



Yasuhiro Tamaki Fine & Specialty Chemicals Production Dept. Himeji Plant

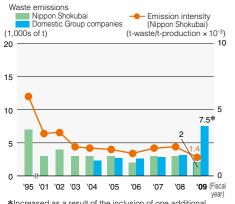
of waste oil in our production processes, all of which was disposed of through incineration. However, after working in collaboration with relevant departments, we have succeeded in developing a technology for recycling and effectively using this waste oil, thereby dramatically reducing the amount of waste we generate. In the future, we will endeavor to work with all our

My workplace manufactures electronic information

materials. Conventionally, we generated about 20 tons/year

employees to reduce the amount of waste generated in order to minimize our environmental impact.

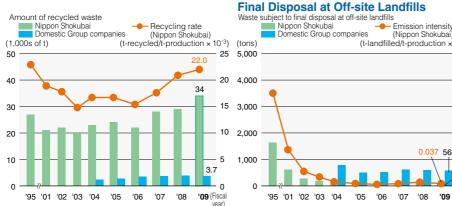
### **Trend in Waste Emissions**

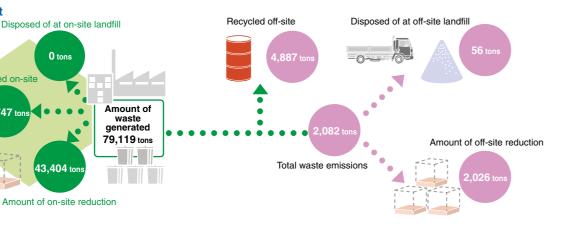


# Increased as a result of the inclusion of one additional group company in the scope of the report.









Fine particles generated through Dust incineration of materials and other nrocesses

COD (Chemical Oxygen Demand)

An index of water pollution caused by organic matter. It represents the volume of oxygen consumed when organic matter is chemically oxidized by an oxidizing agent.

And Man Man Man

Activated sludge treatment system

Trend in Amount of Waste Subject to

anies (Nippon Shokubai) (t-landfilled/t-production × 10<sup>-3</sup>

'08

'09 (Fisca

(tons)

400

300

200

100

Sorting for collection

Sel.

# **Chemical Substances Control Initiative**

### We are reducing our emissions of chemical substances.

In 1995, we participated in a voluntary PRTR survey undertaken by the Japan Chemical Industry Association and have set out to reduce our emissions of chemical substances into the environment. In fiscal 2009, we released 84 tons, which represents a 45% reduction from the fiscal 2005 levels. We remain committed to continuing our effort to systematically reduce emissions toward our fiscal 2012 target of a 50% reduction from fiscal 2005 levels.



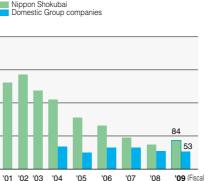
Acrylic acid absorption system

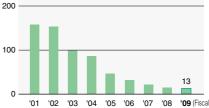
# Top 10 Substances Subject to the PRTR Released in Fiscal 2009

No.	Government Designation No.	Substance Subject to PRTR	Released into Atmosphere	Released into Water	Total Emissions
1	304	Boron and its compounds	0.0	29.8	29.8
2	3	Acrylic acid	13.0	0.0	13.0
3	42	Ethylene oxide	11.3	0.0	11.3
4	227	Toluene	8.0	0.0	8.0
5	299	Benzene	4.0	0.0	4.0
6	6	Methyl acrylate	2.9	0.0	2.9
7	63	Xylene	2.4	0.0	2.4
8	320	Methyl methacrylate	2.2	0.0	2.2
9	45	Ethylene glycol monomethyl ether	2.2	0.0	2.2
10	16	2-aminoethanol	0.0	1.6	1.6



#### **Trend in Emissions of Substances** Subject to the PRTR (by Category)





[Acrylic acid]

(tons)

300

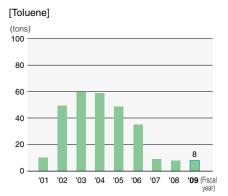
PRTR | Pollutant Release and | Transfer Register



Flue gas treatment system

(tons/year)





CSR

ő

A regulatory system that requires the reporting of emissions of designated chemical substances into the air, water and soil as well as the

# **Environmental Accounting**

The values determined in our environmental accounting were aggregated according to the Environmental Accounting Guidelines published in 2000 by the Ministry of the Environment of Japan and the Environmental Accounting Guidelines for the Chemical Industry published in 2003 by the Japan Chemical Industry Association and the Japan Responsible Care Council. We also made reference to the 2007 Edition of the Environmental Accounting Guidelines published by the Ministry of the Environment of Japan.

Classification Main Initiatives		Amount Invested	Expenses	Effects			
Environmental protection costs		1. Pollution Control Cost	Preventing air and water pollution, controlling hazardous substances	1,196	2,054	No pollution problems occurred. Introduced activated sludge treatment system and worked to reduce environmental impact.	P19, 20
related to control of the environmental impacts of our production and service business operations	Break- down	2. Global Environmental Protection Cost	Energy efficiency (preventing global warming), cogeneration	27	1,748	Energy efficiency efforts resulted in a 14% reduction in energy intensity from fiscal 1990 level. • Energy intensity Fiscal 2008: 115 L/t (10% reduction) Fiscal 2009: 110 L/t (14% reduction)	P18
(Business area cost)		3. Resource Recycling Cost	Appropriate treatment and disposal of industrial waste	0	604	We achieved zero emissions by sorting and recycling our solid waste. • Amount of waste subject to final disposal at off-site landfills Fiscal 2008: 79 tons → Fiscal 2009: 56 tons	P20
Cost of controlling er of production and se occurring upstream & (Upstream/downstream)	rvice o & dowr	perations stream	Reuse of drum containers	0	23	Parts of drum containers are reused.	_
management activities acquisit		Operation of environmental structure; acquisition and maintenance of ISO 14001 registration	1	548	Having acquired ISO 14001 registration at all plants, we plan to enhance our environmental management systems.	_	
R&D activities		Reduction of environmental impact of development and manufacturing processes of green products	164	1,626	Conducting R&D of catalysts for dioxin resolution and catalysts for treating wastewater with organic content	_	
		Environmental-related contributions	0	41	Participation in the LRI promoted by the Japan Chemical Industry Association	P26	
Cost of dealing with environmental remediation — (Environmental damage cost)		_	0	6	_	_	
		Total		1,387	6,650	Economic Effects (Monetary Benefits) Besulting	

	(millions of yen)	
	Amount	
Total investment for the period	17,547	
Total R&D expenses for the period	10,107	

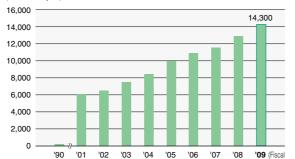
#### Economic Effects (Monetary Benefits) Resulting from Environmental Dratestics Initiative

trom Environmental Protection Initiatives (millions of yen)				
	Amount			
Income	Operating revenue from recycling used products and waste generated by principal business activities	1		
Cost saving	Reduction in expenses associated with energy conservation	4,305		
COSt Saving	Reduction in waste disposal cost accruing from resource conservation and recycling	1,144		
	Total	5,450		

# **Environmental Investment**

Every year, we actively invest in environmental protection measures. Beginning in fiscal 1990, we began to calculate our total investment in environmental protection.

### Total Environmental Investment (since fiscal 1990) (millions of ven)



Environmental Accounting

This system collects and analyzes the costs and effectiveness of environmental protection in business activities, quantitatively and to the maximum extent, and makes the data available to the public. It is focused on sustainable development for companies with the goal of efficiently and effectively promoting environmental protection initiatives while maintaining a good relationship with society

# **Process Safety and Disaster Prevention Initiatives**

# **Basic Approach to Safety Issues**

We recognized early on that the sustainable development of our company could not be achieved without ensuring safety and earning the trust of the community. Since 1973, we have been developing a consensus among all our employees that ensures safety is our top priority with the company's mission statement "Safety takes priority over production."

# The role of senior management in ensuring safety

Senior management has the important role of ensuring safety by implementing the following four items.

- · Clearly demonstrate an attitude of
- emphasizing safety.
- Carefully monitor actual circumstances and
- Maintain adequate management resources.
- Ensure compliance (with corporate ethics as

Management

We have established and implemented the following basic policy regarding safety management into the Safety Management Regulations of our company regulations.

# Principles of Safety Management (excerpt)

- issue necessary instructions to ensure safety.
- well as laws and regulations)

encounter an error in operation (without any risk of being assigned blame).

# Maintaining Our Record of Zero Accidents and Disasters (Promotion of Voluntary Safety Initiatives)

Since our company was established, we have been employing our own proprietary technology in our production operations. This has enabled us to gain much safety and technical knowledge regarding the risks specific to certain processes from the development stage. In keeping with our voluntarily safety awareness and accumulated knowledge, we assume responsibility for our own measures during plant construction and the like.

# Establishment of a Safety Management System

Under our fifth Medium-term RC Promotion Basic Plan (fiscal 2006-08), we introduced plans for a safety management system at all our plants. In fiscal 2009, we began implementing this initiative aiming at comprehensive implementation. Under this system, we can more thoroughly visualize our safety activities and can promote continuous improvement by following the PDCA cycle.

## Assessing the Safety of Facilities

In order to prevent accidents and disasters, we conduct advance risk assessments when undertaking new construction, expansion, and remodeling of facilities, or when changing work procedures. In fiscal 2001, we began employing HAZOP\* and other methods when re-evaluating existing plants to ensure safety.

#### \* HAZOP (Hazard and Operability Study)

A safety evaluation method for systematically evaluating the adequacy of safeguards in plants and eliminating latent risks in plants through comprehensive

# Certification Acquired under the High Pressure Gas Safety Act: Certified Completion Inspector and Certified Safety Inspector

In recognition of their advanced safety technology and safety management as well as their compliance with the provisions of the High Pressure Gas Safety Act, the seven facilities of the Chidori Plant and the seven facilities of the Ukishima Plant in our Kawasaki Plant have been recognized by the Ministry of Economy, Trade and Industry as "Certified Completion Inspector and Certified Safety Inspector" under the provisions of the High Pressure Gas Safety Act.

This certification enables us to conduct self-administrated safety and self-completion inspections on these plants. Recertification may be undertaken every five years.

We are promoting enhancements to our voluntary safety measures and are endeavoring to upgrade our safety management with a view to recertification in fiscal 2012.

## Trend in the Number of Facility Disasters

Fiscal year	'05	'06	'07	'08	'09
Number of disasters	1	0	0	0	0

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# The Principles of Safety

 Safety takes priority over production. • Undertake an immediate shutdown if you



# Implementation of Various **Emergency Drills**

We have established an emergency system for minimizing the damage at each plant in the event of an emergency and are implementing various emergency drills including those in our annual plan. Any necessary modifications are reflected in the next drill after evaluation, which enables us to steadily improve our drills.

# Commendations

. An accident occurred in July 2008 when a tanker truck transporting ethylene oxide was rear-ended on the Tokyo-Nagoya Expressway. Although it was a nighttime accident, the Kawasaki Plant organized an emergency response

team and dispatched them to provide assistance at the road transport accident site. There, they took steps to prevent a secondary disaster. Shizuoka Prefecture, Kanagawa Prefecture, and related organizations such as the responding fire departments highly appreciated this initiative. As a result, at the 24th Kanto High-Pressure Gas Safety Convention in July 2009, we were awarded a commendation as a Plant with Excellent Disaster Prevention.

•The Japan Petrochemical Industry Association provided an employee of the Kawasaki Plant an Excellent Safety Foreman Award. This employee was evaluated as having the prescribed technical skill and experience and demonstrated an excellent track record of safety at his workplace.

•The Himeji Plant was assessed as having improved and strengthened its facility for safety management of hazardous materials and for its voluntary disaster prevention system. As a result. the plant received the Mayor's Commendation as an Excellent Plant for Hazardous Materials as presented by the Himeji Hazardous Materials Safety Convention.

•An employee of the Himeji Plant received a commendation as an Excellent High-Pressure Gas Safety Supervisor at the 39th Hyogo Prefecture High Pressure Gas Safety Supervisor Convention. This employee was recognized for his many years of achievements in high-pressure gas safety









Recipient of Excellent Safety Foreman





ntion of prof

# **Occupational Safety and Health Initiatives**

# Continuous Improvement through the Occupational Safety and Health Management System

In fiscal 2003, we introduced our Occupational Safety and Health Management System (OSHMS) and have been implementing it continuously since then. Using this system, we have been improving occupational safety and health by seeking to eradicate industrial accidents, reduce potential risk factors, and promote health and the creation of pleasant work environments.

# **Targeting Zero Industrial Accidents**

We have succeeded in reducing industrial accidents by implementing systematic "KY" (*kiken yochi*, or risk prediction) campaigns, "close-call incident" (*hiyari hatto*) campaigns, our "5 S" campaigns, and a variety of drills and training classes. We are now working toward our current goal of eradicating industrial accidents by developing initiatives at each plant to enhance our risk prediction.

## On-site training sessions

We hold a variety of on-site training sessions at each plant with the intention of increasing our sensitivity to risk. For example, working with outside educational institutions, we are developing various safety measures tailored to specific job conditions at each plant by surveying previous incidents regarding cases of workers becoming entangled or wedged in equipment; becoming inadvertently splashed with fluids; or being exposed to fire or explosion. We also provide lectures on safety presented by retired employees with the experience of liquids spraying due to dropping or residual pressure and by current employees who have had the experience of our products being burned or leakage from flanges. Moreover, we provided training on earthquakes and first aid through our hands-on experience workshop.



### Intramural Exchange Program

In order to introduce safety activities at the plant, we have been actively promoting exchanges between plants in recent years. At our safety meetings and the like, we also introduce examples of activities implemented at other plants.



## KY campaign

In an effort to reduce the incidence of industrial accidents, we are committed to increasing our sensitivity to work-related risks. In years past, we have been focused on our KY campaign, having implemented group KY before work, KY for individual workers, and radio (Mobix) KY coordinated between the control room and workers. We also carry out systematic drills and KY-focused training, such as KY training with case sheets and holding KY workshops.

#### Commendations

•An employee at the Kawasaki Plant was honored with the Excellent Safety Foreman Award from the Minister of Health, Labour and Welfare. The recipient was evaluated for outstanding skills and experience and for having an excellent workplace safety record.

• The Suita Plant was commended for its 3,500-days accident-free record with the Chairman's Award from the Osaka Labor Standards Association.



# Addressing the Asbestos Issue

Since our establishment, we have never manufactured asbestos products; however, because we used insulation and sealing materials containing asbestos, we have handled asbestos on occasion. Therefore, we are contacting employees and retirees regarding health issues and are implementing a phase-out of products containing asbestos.

# **Supporting Health Issues**

In January 2006, we sent information about asbestos-related medical examinations to retirees, offering an annual medical examination at our expense. We sent out another notice in May 2009 and also published it on our Website.

Since 2006, personal health record cards have been issued to 66 retired employees. In fiscal 1993, one person was awarded industrial accident compensation benefits under the Industrial Accident Compensation Insurance Act, and another was awarded compensation benefits in fiscal 2009. The survivors of one person were awarded special compensation benefits for bereaved families according to the Act on Asbestos Health Damage Relief. We will continue to support our employees and retirees with asbestos checkups in the future.

# Installation of AEDs

We have installed AEDs (automated external defibrillators) at all our plants in preparation for employee emergencies and have systematically implemented lifesaving training.

# **Logistics Safety Initiatives**

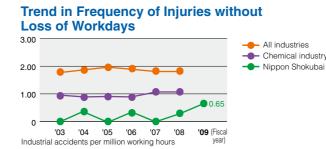
As a shipper committed to improving our logistics safety system at each plant, we periodically carry out mock accident drills that assume an accident on a transportation route. Through this effort, we are helping to prevent accidents during product shipments while minimizing damage should an accident occur. In fiscal 2008, we began installing GPS units in all tanker trucks transporting our ethylene oxide products. This initiative enables us to accurately monitor the position of these trucks so that we, as the shipper, can promptly respond if necessary.

In response to the report on our fiscal 2008 Responsible Care audit, we conducted an audit of the logistics safety of our distribution contractors in fiscal 2009. We intend to continue these audits in the future.

# **Occurrence of Industrial Accidents**

In fiscal 2009, we had two injuries with loss of workdays and two injuries without loss of workdays; our contractors had one injury with loss of workdays, and one injury without loss of workdays. We are focused on preventing any recurrence through intramural support and by providing comprehensive measures and information at each plant.





#### OSHMS (Occupational Safety and Health Management System)

This management system sets out the organization, responsibilities, practical issues, procedures, processes, and management resources required for business operators to continuously implement risk reduction in the area of safety and health.

#### KY (*KikenYochi* or Risk Prediction) Campaign

In an effort to prevent accidents and disasters, this initiative seeks to identify and correct risk factors in the workplace (unsafe behaviors or unsafe conditions) that are not readily apparent. ippon Shokubai's CSR Initiatives

ontributing to Society and Earning Public Tru

# Addressing the Use of Parts Containing Asbestos

In fiscal 2005, we stopped using asbestos-containing parts where the asbestos was at risk of becoming airborne.

In fiscal 2007, we completed a shift to using asbestos-free sealing materials wherever there was a potential to come into contact with the product.

As for other asbestos-containing parts that are not associated with the risk of becoming airborne in normal use, we are systematically phasing them out whenever the opportunity arises for updating or replacing parts.





Audit of the Kawasaki Branch of Nisshoku Butsuryu Co., Ltd.

## Close-call Incident (*Hiyari Hatto*) Campaign

In our day-to-day work, we implement safety measures targeting our facilities and activities in order to clarify the reason for the close call and how we can avoid experiences involving similar tense or alarming occurrences that do not necessarily involve an accident.

## "5 S" Campaign

An activity promoting the "5 S" (*seiri, seiton, seiketsu, seisou and shitsuke*) targeting sorting, tidying, hygiene, cleaning, and discipline.

sponsible Care Activitie

# **Chemical Safety Initiatives**

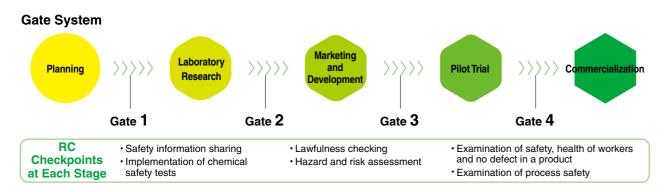
We strive to develop eco-friendly products that are safe and that do not present a health hazard throughout the product life cycle from the R&D stages to disposal at the end of the product service life. Moreover, we will continue to work toward our goal of zero legal and social problems related to chemical substances.

In addition, we are upgrading and reviewing our company regulations and standards for ensuring compliance with national and international chemical product laws and regulations.

Throughout our global operations, we are committed to providing customers with appropriate and timely environmental and safety information regarding the safe handling of our products as well as information on relevant laws and regulations.

# Ensuring the safety of new products

We have introduced a gate system at each stage from R&D to production. At each stage we deliberate whether to proceed to the next stage or not in terms of RC in order to maintain safety throughout the process including material procurement, processing, production, application, and disposal

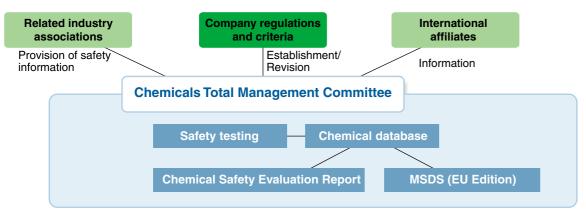


### Accommodating the REACH Regulation

Responding to the EU's chemical regulation REACH requires registration and evaluation of both new and existing chemical products. We export many of our products to the countries within the EU, including our superabsorbent polymer, and we maintain manufacturing and sales companies in the EU that carry numerous substances subject to REACH registration.

We have established a system centered on our Chemicals Total Management Committee, and we have promoted the compilation and use of a substance database that stores safety information collected in HPV/LRI and GPS (defined below). The collected information has been used in GHS and the Japan Challenge Program and for safety inspections of products we have developed.

Our policy is to achieve sequential registration as part of the registration effort. We conduct chemical substance risk assessments with the cooperation of fellow dealers and importers in Western countries and obtain the necessary safety information. Following registration, we proceed with comprehensive measures to avoid obstacles to the distribution of our products including our affiliates both within and outside Japan



#### **Risk Assessment of Chemical Substances**

REACH

This European Union's chemical regulation is an acronym for Registration, Evaluation, Authorization and Restriction of Chemicals. While risk

assessment of chemical substances had conventionally been carried at the initiative of administrative agencies, this responsibility was later

transferred to companies. This legislative approach requires registrants (manufacturers and importers of chemicals) in the supply chain to assume the

responsibility for maintaining human health and reducing environmental impacts. One of the objectives of this legislation is to strengthen the

competitiveness of manufacturers within the FU.

Chemical risk assessment entails evaluation of the risk of various toxic hazards associated with chemical substances. Chemical manufacturers have the socia esponsibility to minimize the risk of chemical substances and are ired to implement voluntary Responsible Care activities.

#### HPV (High Production Volume)/ LRI (Long-Range Research Initiative)

HPV is a program for assessing the human health safety and environmental impact of existing high-production-volume chemicals (exceeding 1,000 tons annually). Internationally, progress continues to be achieved through joint ventures between developed countries and chemical industry associations around the world. The Japan Challenge Program is our domestic initiative, and Nippon Shokubai is dealing with 21 HPV substances outside Japan and four substances inside Japan. We are providing financial assistance to the LRI through research for the Japan Chemical Industry Association, which is studying the long-term impact of chemicals

#### **GPS (Global Product Stewardship)** Initiative

"Product stewardship" is a phrase with a meaning somewhat similar to product safety. This initiativ is focused more on the perspective of customer global collection and use of information on product and chemical safety in cooperation with user organizations and raw materials organizations and the like. We have entered into this initiative with the Japan Superabsorbent Polymer Industry Association (JSPIA) and others

#### Product safety initiatives

Our product safety initiatives serve as a form of preventive maintenance that ensures safe use by our customers. We verify product safety including the response to the Product Liability Act by the Product Safety Review Sub-committee. We prepare and inspect GHS-compliant warning labels, material safety data sheets (MSDS) and yellow cards for the logistics sector and provide information to customers in real time while promoting training sessions for our emplovees.

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#### Accommodating chemical product laws

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(for use outside Japan)

Sample warning label

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We are responding appropriately to national and international laws and regulations such as the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. and the Industrial Safety and Health Act of Japan: the Toxic Substances Control Act of the U.S.A.; REACH; Environmental Management Regulation of China; the Toxic Chemical Control Law of South Korea, and others. These laws require that we collaborate with specialized institutions and our international affiliates in providing notification of new chemical substances.

In order to ensure better compliance with relevant laws and regulations regarding the import and export of our chemical products, we have incorporated the following two additional chemical safety initiatives: the introduction of an in-house training initiative: and the requirement to determine whether a product is on a list of regulated chemical substances subject to import/export restrictions. We are now taking steps to familiarize our employees with the lists of items subject to import/export restrictions, and to record on the MSDS whether a product has been determined to be on a list of items subject to import/export restrictions.

In order to ensure thoroughly appropriate export procedures, we have also instituted a shipping management system coordinated with our Enterprise Resource Planning (ERP) backbone accounting system.

# Quality Assurance Initiatives

We are closely focused on our top priority of improving quality by providing products and services that fully satisfy our customers while earning their trust.

#### Customer satisfaction initiatives

All our plants and all Group companies engaged in manufacturing and distribution both within and outside Japan have acquired certification of registration with ISO 9001, the international standard for quality management systems.

As a result, we promote quality assurance initiatives that represent our customers' interests from the product development stage through to manufacturing and delivery.

We are dedicated to ensuring continuous improvement of our quality management system in order to provide products that satisfy our customers with stable and exceptional quality

MSDS

#### GHS

The Globally Harmonized System of Classification and Labeling of Chemicals, as recommended by the United Nations, has been enforced in Japan through the Industrial Safety and Health Act. This system globally harmonizes the criteria of risk, health, and environmental hazards. As a result, hazardous chemical products are classified as hazards based on test data, packaging containers bear labels with pictographs, and products are identified as hazardous on their MSDS. Countries in Europe and Asia have also introduced this system. We are implementing this system by incorporating it into our RC Plan

The Material Safety Data Sheet lists a chemical's properties as well as data on its safety, transportation requirements, applicable laws, proper handline dependence of the products we compile an MSDS for each of the products we manufacture and develop, and we have implemented a system for distributing the latest versions to all employees through our MSDS DB. In the future, we intend to compile a GHScompatible version, an international version, and versions targeted to specific countries, such as an FU version and Chinese version.

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# Accommodating green procurement

For substances that are regulated or highly hazardous, we have adopted regulations that set forth two categories: "prohibited substances (total ban on use)" and "restricted substances (handling restricted depending on product application)." We are promoting the development of green products and the procurement of raw materials with low environmental impact while determining and controlling the inclusion of such substances in our products. In response to customer requirements regarding the discontinuation and reduction of substances imparting an environmental burden, we are striving to eliminate these hazardous substances from our products and are disclosing appropriate information to customers.

### Addressing import/export controls



Quality Assurance Me

# • Preventing quality problems through widespread communication

We swiftly institute a company-wide response to any quality problems that arise and have compiled a database that enables us to share information and visualize the state of progress of our response. At the same time, by providing a means of widespread communication, we can help to prevent the emergence of quality problems elsewhere in our Group. We actively support the exchange of information among our Group companies and, by encouraging widespread communication, we are committed to minimizing problems

#### Yellow Card

Carriers who transport hazardous materials and toxic substances must carry a yellow card for reporting information about their cargo to fire squads in the event of an accident. The yellow card lists a chemical's hazards, first aid procedures in an accident. and emergency contact information. As part of its promotion of Responsible Care, the Japan Chemical Industry Association prepares and manages guidelines on the procedures for preparing a yellow card in order to strengthen first aid measures in the event of an accident

#### **Green Procurement**

This initiative responds to the national policy to promote the purchase of products and raw materials with reduced environmental impact through recycling and the like. This initiative guides companies in their purchase of raw materials and parts for products from suppliers to promote the preferential selection of products with the least environ

Site

# **Production Site Report**

# Himeji Plant



In fiscal 2009, our plant completed an acrylic acid plant featuring the most advanced technology, and we succeeded in reducing our energy intensity and CO2 emission intensity significantly year on year, which the new plant is expected to reduce further.

In the area of process safety and disaster prevention, we systematically implement initiatives to reduce the risk of a facility disaster based on the safety management manual we issued in fiscal 2008.

During the preceding fiscal year, one serious industrial accident occurred involving a serious chemical injury. We are working to prevent the recurrence of similar accidents by reviewing our educational materials and by focusing on safety measures related to chemical accidents.

In 2010, we will mark the 50th anniversary of our plant. We will continue to promote our RC activities in order to develop a safe workplace that maintains the trust of everyone in the region.

	Plant Manager:	Yosuke Ogata, Member of the Board, Managing Executive Officer
	Location:	992-1 Aza-Nishioki, Okihama, Aboshi-ku, Himeji
nt	Number of employees:	1,004 (including Research Center employees)
lline	Products:	Acrylic acid, acrylates, maleic anhydride, superabsorbent polymers, resin modifier, electronic information materials, De-NOx catalyst, dioxins decomposition catalyst, and other products

# **Fiscal 2009 Results of RC Activities**

• We reduced our energy intensity by 6.3%, and CO<sub>2</sub> emission intensity by 3.6%, year on year.

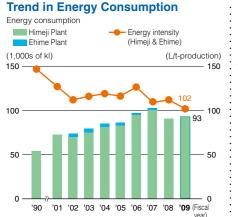
Yosuke Ogata

Plant Manage

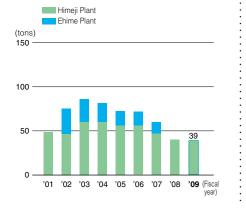
- We achieved the process safety and disaster prevention target of zero facility disasters and zero facility accidents.
- We implemented factory tours by extending invitations to various local community associations.
- We experienced two injuries with loss of workdays (including contractors) and one injury without loss of workdays.



#### Trend in CO<sub>2</sub> Emissions CO<sub>2</sub> emissions

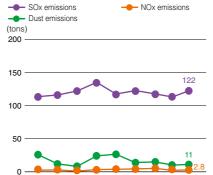


Trend in COD of Wastewater









## **Trend in Emissions of Substances** Subject to the PRTR

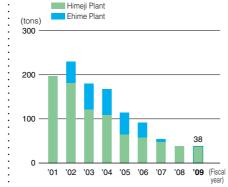
'03 '04 '05 '06

'07 '08 '09(Fisca

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Data for the Ehime Plant was added to the data for fiscal 2002-07.

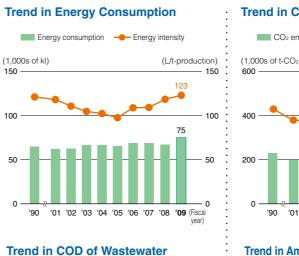


In fiscal 2009, we unfortunately experienced an injury with loss of workdays. After reflecting on the need to enhance basic safety initiatives, we focused on taking preventive steps through hands-on training and videos of accident situations.

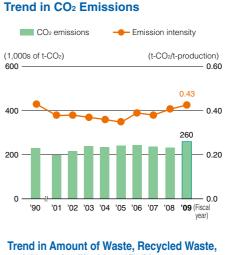
We completed the expansion of our ethylene oxide (EO) facility at the Ukishima Plant and began commercial operation in February. Having pledged to ensure safety as a leading national manufacturer of ethylene oxide, we will continue to move toward realizing the design of the EO Center.

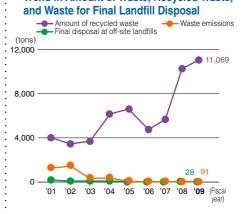
In addition, the Chidori Plant will promote a modal shift of product transportation by upgrading the freight car shipping facility for ethylene oxide.

We will continue to promote RC activities with the goal of earning the trust of the public and the local community.



'01 '02 '03 '04 '05 '06 '07 '08 '09 (Fiscal





# Kawasaki Plant

Plant Man Location

> Number Products:

'01

'02



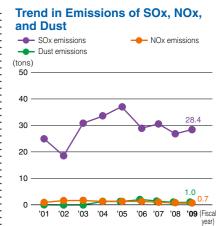
nager:	Kenji Rakutani, Member of the Board
:	Chidori Plant
	14-1 Chidori-cho, Kawasaki-ku, Kawasaki
	Ukishima Plant
	10-12 Ukishima-cho, Kawasaki-ku, Kawasaki
of employees:	326 (including Research Center employees)
:	Ethylene oxide, ethylene glycol, ethanolamine, higher- alcohol surfactants, polymers for concrete admixture, and other products

# **Fiscal 2009 Results of RC Activities**

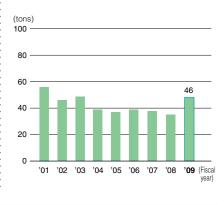
Completed expansion of the ethylene oxide facility at the Ukishima Plant and began commercial operation with zero facility disasters.

- One injury with loss of workdays occurred.
- We have enhanced our hands-on training and expanded our ongoing basic safety initiatives.





# Trend in Emissions of Substances Subject to the PRTR



# **Production Site Report**

# Suita Plant



In fiscal 2009, the Suita Plant experienced zero industrial

accidents, zero facility disasters, zero problems related to

increased our sensitivity to risk by making practical use of our

commemoration of this achievement, we were presented

with the Chairman's Award from the Osaka Labor

we implemented our safety management system and made

our boiler operation patterns to accommodate fluctuating

our environmental impact and promote efforts to maintain

our record of zero accidents and zero disasters while ensuring safety and security and earning the trust of the

an unprecedented effort to prevent facility disasters.

steam demand, thereby improving energy efficiency.

In the area of process safety and disaster prevention,

As an environmental protection initiative, we reviewed

Through our RC activities, we will continuously reduce

"close-call incident" database and hands-on safety training.

In the area of occupational health and safety, we

As a result of these various efforts, last year marked our 10th consecutive year of no workdays lost to injury. In

chemical safety, and zero serious guality complaints.

Plant Manager Location: Plant Number of employees: 82 Outline Products

Hideyuki Nishibayashi 5-8 Nishi Otabi-cho, Suita

Acrylic resins for adhesives, resins for paints, and other products

# **Fiscal 2009 Results of RC Activities**

- We achieved zero industrial accidents, zero facility disasters, zero problems related to chemical safety, and zero serious quality complaints.
- We received the Chairman's Award from the Osaka Labor Standards Association.
- We extended our accident-free record to 10 years and counting.
- We promoted energy efficiency by reviewing our boiler operation patterns.

Hideyuki Nishibayashi Plant Manage

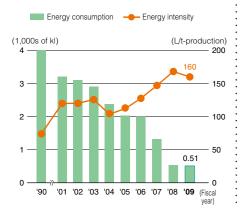
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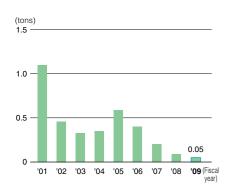
# **Trend in Energy Consumption**

Standards Association

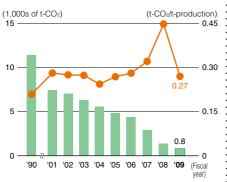
regional community.



#### **Trend in COD of Wastewater**

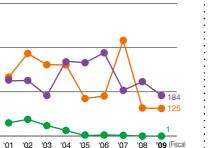


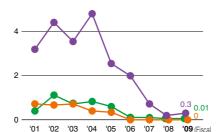
#### **Trend in CO<sub>2</sub> Emissions** Trend in Emissions of SOx, NOx, and Dust CO<sub>2</sub> emissions ---- Emission intensity ---- SOx emissions --- Dust emissions





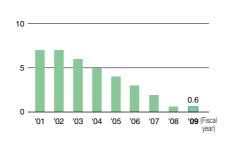
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---- NOx emissions

**Trend in Emissions of Substances** Subject to the PRTR



# **Responsible Care Activities**

# **Initiatives of Group Companies**

Our Group companies both inside and outside Japan are also engaged in RC activities.

# **RC Exchanges among Group Companies**

# RC reciprocal audits

Since fiscal 2002, in an effort to improve the RC activities of our Group companies in Japan, an organization of representatives of Group companies has been undertaking overall audits of RC activities at two companies each year. In fiscal 2009, audits were conducted at Tokyo Fine Chemical Co., Ltd. and Chugoku Kako, Ltd.



## RC interviews

From a Group management perspective, the entire Nippon Shokubai Group is proactively taking steps to upgrade the improvement level of our RC activities by arranging individual visits of members of the RC Division to Group companies both inside and outside Japan to engage in a vigorous exchange of views on the policies and status of RC activities.

The Group companies individually visited for interviews included all companies located in Japan as well as NIPPON SHOKUBAI EUROPE N.V.; NISSHOKU CHEMICAL INDUSTRY (ZHANGJIAGANG) CO., LTD.; and SINO-JAPAN CHEMICAL CO., LTD.





# **RC** Activities at Group Companies in Japan

# Nippoh Chemicals Co., Ltd.

This company integrated the activities of the ISO 9001 and ISO 14001 standards within its RC activities. Now into the second year, this approach is finally functioning as one activity. The company has been implementing its Occupational Safety and Health Management System (OSHMS) since 2008 and it completed the building of a framework system in February 2010. In March, the UN completed inspections according to the Chemical Weapons Convention and uncovered no problems.





Forklift safety training led by an instructor from Toyota L&F



Safety consultant engaged in training o new employees



Emergency workshop chaired by personnel from Izumi Fire Department

# Nippon Polyester Co., Ltd.

Among the environmental initiatives undertaken by the company during this fiscal year, much progress was made toward ensuring efficient use of solid waste. The company sorted plastic packaging materials and is seeking ways to reuse it. In the area of disaster prevention, the company was recommended by the Sanda City Fire Department as a candidate for the excellent plant commendation presented by the prefectural governor at the Hazardous Materials Safety & Security Conference. In terms of quality, the company is seriously committed to implementing RC activities according to the advice of the ISO auditors.



Sorting of plastic for reuse as a valuable



Factory aisle outlined with paint

# **RC** Activities at Group Companies in Japan

# Tokyo Fine Chemical Co., Ltd.

As part of its fiscal 2009 RC activities, this company acquired its environment-focused Eco Action 21 certification. As a result of external inspections, it succeeded in achieving significant

results through practices such as recycling waste and conserving energy. Tokyo Fine Chemical will continue to work around its core principles of safety, quality, and environmental harmony.

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# Nihon Jyoryu Kogyo Co., Ltd.

This company is seeking to address environmental protection by reducing waste generation, energy use, and emissions of substances subject to the PRTR.

By bringing the treatment of wastewater in-house, a task formerly outsourced, Nihon Jyoryu Kogyo has greatly reduced its waste emissions.

In the area of occupational health and safety, the company improved the work environment and increased safety awareness through risk assessments; KY, HH, and "5 S" campaigns; and

training through review of industrial accidents. The company, which is also implementing a zero accident program, remains committed to taking action to improve its business operations and the environment by applying the "5 S" campaign.



Presentation at environmental conference

# Nippon Polymer Industries Co., Ltd.

As production increases, the amount of water used also increases, leading to increases in the volume of wastewater for treatment and for off-site disposal. In June 2009, one of the company's wastewater projects resulted in some wastewater being collected in the form of reclaimed water from the wastewater treatment process. The company has been able to conserve water resources and reduce wastewater by 400 to 500 tons/month by reusing this water for primary cleaning of containers.





Reclaimed water used for container cleaning

New tank for reclaimed water

# Chugoku Kako, Ltd.

As priority themes for fiscal 2009. Chugoku Kako implemented the Eco Action 21 activity linked to the Cost Reduction Committee. The company also improved the work environment as a place for managing special health and hygiene guidance. In the area of environmental preservation, the company successfully reduced the volume of waste generated and water consumed by reviewing the manufacturing process. As regards health and safety, Chugoku Kako improved its work environment through risk assessment by means of its HH closecall incident campaign, promotion of the use of protective gear, and the participation of an industrial physician in safety patrols. The company remains committed to developing as a safe and eco-friendly company by promoting its RC activities.



Safety patro

# NIPPON NYUKAZAI CO., LTD.

Nippon Nyukazai became a member of the Nippon Shokubai Group in March 2008. It manufactures surfactants and chemical products at its production sites at the Kawasaki Plant and Kashima Plant

In April 2009, the company introduced its RC activity and launched an activity for all employees by laying out its goals with six pillars under the slogan "Working together towards a better future."

In the first year of the RC activity, everyone struggled with its unfamiliarity, but the employees are gradually becoming more comfortable with the RC activity. The company will continue to improve its RC activity.





Workplace RC inspections



KY Workshop



Having acquired certification of ISO 9001 and ISO 14001 registration for all its divisions, the Nisshoku Butsuryu Group is raising awareness of continual improvement, quality assurance. and environmental management with management systems that comply with international standards. The company's efforts to reduce the threat of global warming and mitigate environmental impacts include initiatives focused on modal shift, transport efficiency and improved fuel economy, energyefficient driving methods, and green management with an emphasis on eco-friendly logistics. Notably, Shingu Unsou Co., Ltd. won the Minister of Environment Award at the Eco Drive Contest 2009 sponsored by the Ministry of the Environment; Daiko Rikuun was also awarded a prize.

As for initiatives targeting prevention of industrial accidents, the company introduced a risk assessment of hazardous and toxic work in fiscal 2009.

The Nisshoku Butsuryu Group continues to refine its emphasis on the environment, distribution safety, and distribution quality while aiming to become a better logistics company that warrants the full confidence of shippers and customers alike.





Award ceremony for the Business/Commercial Eco Drive Contest, a project associated with Air Pollution Control Promotion Month

# RC Activities at Group Companies Outside Japan

# NA Industries, Inc. (U.S.A.)

In 2009, NA Industries upgraded its pH treatment facility for sewage and plant wastewater.



Moreover, the company is working to reduce landfill waste by recycling cardboard boxes, aluminum cans, and bottles, and has provided a hopper for recycling cardboard boxes.





In the U.S., atmospheric emission of acrylic acid is regulated as a Hazardous Air Pollutant (HAP); therefore, the company is required to submit a regular report to the EPA regarding the total amount of leakage detected from flanges, valves, and pumps.

In 2009, NA Industries introduced its KY(kiken yochi or risk prediction) campaign. Each department director was obliged to review its KY activities and report the most outstanding examples from their respective campaigns. The company continues to advocate this innovation in which selected KY activity reports are displayed to all employees on the in-house bulletin board.



# **RC** Activities at Group Companies Outside Japan

# **PT. NIPPON SHOKUBAI INDONESIA**

### Proper Award

This company has earned praise for its eco-friendly production

operations, with this year marking its fourth consecutive year of being commended by the Indonesian Ministry of the Environment. Indonesia's Vice President Kalla presented the most recent award at a ceremony in 2009.



### Zero Accident Award

In August 2009, PT. Nippon Shokubai Indonesia marked its 10th year of being free of accidents not requiring shutdown. The Indonesian Ministry of Labour presented the company with a Zero Accident Award.



#### Responsible Care Award

Every two years, RC Indonesia evaluates and commends participating enterprises for their RC activities. Recently, the RC

activity of PT. Nippon Shokubai Indonesia was recognized as the best in Indonesia. The Deputy Minister of Industry of Indonesia presented the company with the Platinum Award for Excellent and Outstanding Achievement.



# Contributing to the community and reducing the volume of general refuse

Previously, the company collected six cubic meters of weeds from idle land every week and discarded it as general refuse at an off-site landfill. Recently, the company started raising goats, which eat these weeds on the idle land. The goats born here are loaned to local residents for breeding, providing them with a new business opportunity. The weeds and droppings are used as fertilizer for plants on the premises.



# NIPPON SHOKUBAI EUROPE N.V. (Belgium)

In addition to implementing its RC activity on a daily basis, Nippon Shokubai Europe has been advocating company policies related to environmental management, occupational safety, and quality assurance. It launched its "5 S" campaign in January 2009 and posts information on,



and the results of, periodic inspections by the audit team.

By adopting a system based on the PDCA cycle, the company is recognizing and inspiring employees in their "5 S" activities. The company installed an electronic billboard around the company entrance area to display information regarding safety, quality assurance, and environmental management. The company continues to disseminate information about its RC activity not only to employees but also to visitors and vendors to the company.

# Singapore Acrylic Pte Ltd.

Having adopted a management policy of safety first, zero accidents, and zero disasters, Singapore Acrylic is implementing its RC activity as part of its daily operations.

In 2008, the company became a member of the Singapore Chemical Industry Association and declared its intention to comply with RC policies.



In 2010, the company conducted an emergency drill involving a mock rescue of a worker who required assistance when working at significant height on the distillation tower. The "victim" was safely returned to the ground on a stretcher with a rope and was rushed to hospital. The Jurong Emergency Support Force also participated in the drill. The company was confirmed to have conducted the drill effectively and undertook important coordination with all responsible parties.

For 2010, Singapore Acrylic is committed to continue seeking ways to conserve energy and maintain its ISO registration.

# NISSHOKU CHEMICAL INDUSTRY (ZHANGJIAGANG) CO., LTD.

Nisshoku Chemical Industry continued its environmental, safety, and quality assurance production initiatives in 2009. The company focused on its goals of minimizing industrial waste and increasing energy efficiency. Notably, the Zhangjiagang Free Trade Zone recognized the company as a "Corporation with Advanced Safe Production and Environmental Protection," making it the first company to be so recognized.

The company also undertakes disaster prevention activities in June and November of each year and conducts fire drills jointly with the firefighting team of the chemical industry park. In addition, the self-defense disaster-prevention team trains every two months within the company to ensure it can promptly handle any disasters that might occur.

The company initiated a risk assessment in the preceding fiscal year and implemented measures to reduce the risks of operation. The company remains committed to complying with all relevant laws; undertaking periodic measurements of noise, chemical concentrations, and particulate; and maintaining the health of its employees.





# Third-Party

The Japan Chemical Industry Association (JCIA) issued the "Independe Report 2010 (Japanese edition) in Japanese as below. It expresses ver of chemical industry specialists on the contents related to our RC activiti



株式会社 日本触媒 代表取締役社長 近藤 忠夫 殿

# ■検証の目的

レスポンシブル・ケア報告書検証は、株式会社日本触媒が作成 (以後、報告書と略す)に記載されている、下記の事項について、 門家の意見を表明することを目的としています。

パフォーマンス指標(数値)の算出・集計方法の合理性及び
 数値以外の記載情報の正確性

3) レスポンシブル・ケア活動の評価

4) 報告書の特徴

### ■検証の手順

・本社において、各サイト(事業所、工場)から報告される数値の 確性について調査を行いました。調査は、報告書の内容につ ること、並びに彼らより資料提示・説明を受けることにより行ない。 吹田工場及び研究所において、本社に報告する数値の算出力 情報の正確性の調査を行いました。吹田工場及び研究所の割 すること、資料提示・説明を受けること、並びに証拠物件との照 ・数値及び記載情報の調査についてはサンプリング手法を適用

### ■意見

- パフォーマンス指標(数値)の算出・集計方法の合理性及び数値
   ・数値の算出・集計方法は、本社、吹田工場及び研究所において・調査した範囲に於いて、パフォーマンスの数値は正確に算出・
   2)記載情報の正確性について
- ・報告書に記載された情報は、正確であることを確認しました。 易さに関し、若干指摘事項がありましたが、現報告書では修 れません。
- 3) レスボンシブル・ケア(以後、RCと略す)活動の評価について ・RC活動をCSR経営の中心と位置づけ取り組んでいること及びの活動の向上に努めていることを評価します。 ・吹田工場では、場内の整理・整頓が確実に実施されていること
- 無災害を継続していること、並びに研究所では、5年間無災害 ・吹田工場では、廃棄物処理の委託先の監査を計画的に実施 要請しました。
- 4) 報告書の特徴について ・簡潔で分かりやすく、読みやすい報告書を目指していることを ・数値データは、毎年、同じ書式で記載し、年度間の比較をしゃ

ent Verification – Opinions" for our Environmental and Social rification on rationality and accuracy, and informed opinions ies and the characteristics of our report.	CSR Initiativ
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社団法人 日本化学工業協会 レスポンシブル・ケア検証センター長	Contributing to Society and Earning Public Trust
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2集計方法の合理性、及び数値以外の記載情報の正 のいて各業務責任者及び報告書作成責任者に質問す いました。 方法の合理性、数値の正確性、及び数値以外の記載 調査は、各業務責任者及び報告書作成責任者に質問 給合することにより行ないました。 乱ました。	Responsible Care Activities
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び国内グループ会社と及び海外グループ会社のRC	
と、安全表示も適切に行われていること及び 10 年間 診を継続していることを評価します。 されていますが、その記録を分かりやすくするように	ite Reports
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