

CSR Report



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Editorial Policy

Nippon Shokubai began publishing its Environmental Report in fiscal 2002. In fiscal 2005, information on corporate social responsibility (CSR) was included, at which time this publication was renamed the "Environmental and Social Report." In fiscal 2006, we established our CSR Management Committee and reported on our CSR initiatives in order to improve our CSR implementation structure. We also appended the subtitle. "Our Commitment to CSR."

Beginning with this issue, we further expanded the content related to corporate social responsibility and renamed the publication the "CSR Report."

- ♦ We have focused on increasing both the readability and ease of understanding for the benefit of our stakeholders.
- \blacklozenge Since fiscal 2005, we have been including the results of an objective third-party evaluation of our Responsible Care initiative undertaken by the Japan Chemical Industry Association.
- ♦We prepared this report with reference to the "Environmental Reporting Guidelines" (Fiscal 2012 Version) of Japan's Ministry of the Environment and the "Sustainability Reporting Guidelines" (Version 3.1) of the Global Reporting Initiative.

CSR is a corporate initiative through which businesses take responsibility for the impact of their operations and contribute to sustainable growth in harmony with society and the environment. It encompasses the overall concept of corporate management and seeks to enhance the trust of the company's various stakeholders.

Scope of This Report

Organization

NIPPON SHOKUBAI CO., LTD. Osaka Office, Tokyo Office

Himeji Plant, Kawasaki Plant, Suita Plant* Himeji Research Center Suita Research Center Tsukuba Research Center (Unless otherwise stated, all data on business performance refers solely to Nippon Shokubai Co., Ltd.) *Ceased operations on January 1, 2015

Main Group Companies

In Japan

NIPPOH CHEMICALS CO., LTD., NIPPON POLYESTER CO., LTD., Tokyo Fine Chemical CO., LTD., CHUGOKU KAKO CO., LTD., NIPPON POLYMER IND. Co., Ltd., NISSHOKU TECHNO FINE CHEMICAL CO., LTD., NIPPON NYUKAZAI CO., LTD., Nisshoku Butsuryu Co., Ltd.

Outside Japan

NA Industries, Inc. PT. NIPPON SHOKUBAI INDONESIA NIPPON SHOKUBAI EUROPE N.V. SINGAPORE ACRYLIC PTE LTD NISSHOKU CHEMICAL INDUSTRY (ZHANGJIAGANG) CO., LTD. SINO-JAPAN CHEMICAL CO., LTD.

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Message from the President



Moves Forward.

On September 2012, the acrylic acid production facility of our Himeji Plant experienced an explosion and fire. Since that unfortunate event, we have taken steps to restore the damaged facilities and confirm their safety, and by fiscal 2014 we managed to repair the production system that had been in operation before the accident. We instituted thorough and ongoing preventive measures and have strengthened our safety management structure and culture of safety prioritization. By improving our awareness, knowledge and skills related to safety, we will remain committed to regaining and strengthening the trust the public has placed in us.

Strengthening CSR management through "Reborn Nippon Shokubai 2020," our new long-term business plan

The Nippon Shokubai Group has launched "Reborn Nippon Shokubai 2020," our new long-term business plan spanning the period from fiscal 2014 to fiscal 2020. From the outset, this plan takes a renewed approach to our corporate credo - "Safety takes priority over production" — and underpins both our Group Mission and Management Commitment.

With that in mind, we will strive to manufacture and sell our products with confidence in order to become an innovative chemical company that adds new value to people's lives. In addition, we will remain focused on developing products that meet the needs of society while providing greater comfort and convenience.

Under this plan, we will work together as a team to become a company that we can be proud to work for while emphasizing work safety and peace of mind and rewarding those who demonstrate their best efforts and

With this edition, we have given our conventional "Environmental and Social Report" the new title of "CSR Report"; moreover, beginning this year, we will introduce easier-to-understand CSR initiatives, including our Responsible Care (RC) plan for the Nippon Shokubai Group. We welcome your continued support and candid opinions, and we greatly appreciate your cooperation with our initiatives.

The "Reborn Nippon Shokubai"

achieve results

Clearly, however, the economic environment in which we operate has grown increasingly bleak in recent years. It is essential that we focus on strengthening the response capabilities of our personnel and our entire organization in order to accommodate the changing economic climate.

Therefore, one priority in the fiscal year ahead will be to reform our organizational culture. We are committed to developing small group activities on a company-wide scale to ensure that all employees maintain a clear recognition of current circumstances and remain aware of the individuals in charge. We have to understand our personal roles and those of our respective departments while identifying and pursuing action goals we have labeled "my action declarations."

At the same time, we will address organizational reforms in order to transform the structure of our company.

June 2015

Ikida

Masanori Ikeda, President

csR

Profile of the Nippon Shokubai Group

Outline

Est	ablished	August 21, 1941
Со	mmon stock	¥25,000 million
Ne	t sales	¥374,900 million (consolidated) ¥236,200 million (non-consolidated)
Nu em	mber of ployees	4,075 (consolidated) 2,141 (non-consolidated)
Os	aka Office	Kogin Bldg., 4-1-1 Koraibashi, Chuo-ku, Osaka 541-0043, Japan
		TEL: +81-6-6223-9111 FAX: +81-6-6201-3716
Toł	kyo Office	Hibiya Dai Bldg., 1-2-2 Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011, Japan
		TEL: +81-3-3506-7475 FAX: +81-3-3506-7598
Ma Re:	in Plants and search Centers	Himeji Plant, Kawasaki Plant, 6 Research Centers, Process Technology Center
		As of March 31, 2015

Major Product Lines

Basic Chemicals 39.5%

Acrylic acid, acrylates, ethylene oxide, ethylene glycol, ethanolamine, secondary alcohol ethoxylates, glycol ether

Superabsorbent polymers, intermediates for pharmaceutical, polymers for

resins for adhesives, resins for paints, plastic moldings, adhesive products

concrete admixture, electronic information materials, iodine, maleic anhydride,

Environmental Products & --

Catalysts 6.9% Automotive catalysts, De-NOx catalysts, dioxins decomposition catalysts, process catalysts, exhaust gas treatment catalysts, materials for fuel cells

Functional Chemicals

53.6%

Sales ratio by business segment (Fiscal 2014, consolidated)

Financial Data





Net income (consolidated)



companies, Nippon Shokubai has established a network encompassing the fields of chemicals, processing, and transportation in order to respond accurately to growing customer needs. Our Group was formed to more effective supply chain (as of April 1, 2015).

Domestic Network







R&D Highlights

VEEA UV-Curable Reactive Diluent

UV-curable reactive diluent is used to reduce the viscosity of UV-curable polymers; this polymerizable material also cures by means of photopolymerization with UV radiation. The resin cures when exposed to ultraviolet radiation for several seconds; because lengthy drying is unnecessary, energy consumption is reduced. In addition, because it has low viscosity, organic solvents are no longer required. This technology is friendly to the environment because it reduces the amounts of environmental pollutants released into the





Wide-format inkjet printer

atmosphere. VEEA, our proprietary product, is used widely as a hard coating agent for smartphones and as a UV-curable ink. Importantly, it is recognized for its outstanding performance as a reactive diluent for UV-curable ink for use with inkjet printers







ZIRCOSTAR Dispersed Zirconia Nanoparticles*

The zirconia nanoparticles we developed with our proprietary technology exhibit good dispersion in a variety of organic solvents and resins. Resins in which these nanoparticles are dispersed demonstrate good optical characteristics (including high refractive index and high transparency), which are not possible with conventional materials. Materials incorporating ZIRCOSTAR are most suitable for optical material and electronic material applications such as plastic lenses and displays. This product is especially suitable as a contributor to the energy-efficiency of portable devices such as smartphones and tablet PCs,

contributing to extended operating time when battery-powered. *Zirconium oxide whose particle size is mainta at nano scale (10⁻⁹ m)





Dispersion in methyl ethyl ketone

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IONEL Electrolyte for Lithium Batteries

We have developed a proprietary electrolyte for lithium batteries. Known by the generic term lithium bis(fluorosulfonyl)imide, or LiFSI, it exhibits the largest ionic conductivity among the numerous lithium salts.

Confirmed as effective at improving the performance of lithium ion batteries at low and high temperatures, this product offers societal and environmental advantages in terms of smartphone batteries and hybrid vehicle batteries.





Molecular model of LiFSI

Preventing Global Warming and Improving Water Resources

Our Policy on Social Initiatives

In keeping with the Nippon Shokubai Group Mission of **TechnoAmenity** and our commitment to protecting biodiversity, we intend to adopt initiatives focused on benefitting and increasing the prosperity of our stakeholders, including local communities, while maintaining clear communication with society as a good corporate citizen.

Under our Policy on Social Initiatives, we contribute to forest development as one of our environmental protection initiatives.

In an effort to help mitigate the threat of 21st-century challenges such as global warming while protecting biodiversity and engaging in similar initiatives, our employees participate as volunteers in forest protection and regeneration. Through this awareness-raising effort, we aim to cultivate personnel who can think for themselves and act on the environment.





Japan-China Friendship Forest Development and Global Warming Prevention

Location: Ejin Horo Banner, Inner Mongolia Autonomous Region, China Activities: Afforestation and irrigation work and the like Annually, beginning October 2008 Dates:

People's Republic

of China

Desert of Inner Mongolia

Acknowledging the serious problem of global desertification, we are working to prevent this issue in inland areas of China. We are planting trees with local residents with the goal of restoring an area where a vast forest once stood.





The trees next to the signboard grew significantly over eight years.



100 to 200 trees were planted over two days







rery sandy area, but I was surprised at how much this are has now changed. Today, it is covered with a considerab amount of greenery. I expect that the seedlings we planter will grow to become great trees. It was also very plea to interact with the local residents, including the mem of the Forestry Administration and students.













Nippon Shokubai's CSR Concept

Since 1973, Nippon Shokubai has been advocating the spirit contained within our corporate credo, "Safety takes

Corporate Governance

Management Structure

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 2015)



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

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 committees

Board of Auditors

Supervises the execution of duties of As an advisory body to the president, Comprising two external auditors and Chaired by the president, this committee management policies and related matters. It also consults on the execution of important divisional matters.

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

two internal auditors, this board implements measures as appropriate in convenes monthly in general, submits response to various wide-ranging risks reports, and engages in discussions to which the company is exposed. and deliberations on important matters.

Under the chairmanship of the president improves and strengthens the company's this committee has established a system to ensure the reliability of financial reporting as enforced by the Financial overall corporate ethics and systems for Instruments and Exchange Act. It also seeks to process company operations more efficiently and effectively

rnal Control Com

Contributing to Society and Earning Public Trust

Corporate Ethics / Information Disclosure

Corporate Ethics

We remain committed to various group-wide initiatives intended to further improve and strengthen our corporate ethics and legal compliance systems.

Corporate Ethics Training Rank-based Training

Every year we provide training sessions in corporate ethics targeted

to specific employee ranks.

Since 2011, we have held corporate ethics training sessions targeted to rank-and-file employees 27 times, reaching a total 1,600 employees. In 2014, we held the training sessions from September to December.

In these sessions, the participants reviewed the topics covered in the preceding session, such as the behaviors required for compliance, which include not only legal compliance but also the five behavioral aspects of integrity, fairness, responsibility, common sense, and law-abiding spirit. We reconfirmed the importance of performing daily operations by considering crimes committed by individuals and companies from the perspectives of origin (intent or

Training in Specific Laws and Regulations/Training in International Competition Laws

In light of the strengthened enforcement and increasing number of cases involving international competition laws recently, we provided training on this topic for executive officers and employees of the sales division and other divisions.

In December 2014, we invited Masahisa Ikeda and Toshiro Mochizuki, attorneys from the international law office of Shearman and Sterling LLP, to deliver a lecture and management training session for members of the board and executive officers. The lecture addressed recent trends in antitrust law with specific cases in the U.S.A. and EU and elsewhere; presented an overview of enforcement actions against cartels in the U.S.A. and the effectiveness of the leniency program (surcharge reduction and exemption system); and considered the importance of the compliance program in terms of preventing violations.



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



negligence) and conduct (omission or commission). Addressing the topics previously covered, we highlighted several themes, including individual behavior and judgment criteria in case of crimes of intent as well as methods of workplace communication for preventing crimes of omission



In March 2015, we invited Masahisa Ikeda for a return visit along with others in the field and provided training in specific laws and regulations for those employees working in sales and other divisions. Through this training, participants were given notes on appropriate business conduct through commentary and case studies that addressed differences in Antitrust Law in Japan and elsewhere and the effects of violations.



Social Contribution

In order to impart a deeper understanding of our company, we strive to actively communicate with all stakeholders through environmental protection initiatives, through involvement in local communities, and by supporting the training of personnel who represent 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

In keeping with the Nippon Shokubai Group Mission of **TechnoAmenity** and our commitment to protecting biodiversity, we intend to adopt initiatives focused on benefitting and increasing the prosperity of our stakeholders, including local communities, while maintaining clear communication with society as a good corporate citizen.

Environmental Protection Initiatives

Conserving and Popularizing the *Nojigiku* Chrysanthemum, Prefectural Flower of Hyogo

In order to protect, conserve, and popularize the endangered nojigiku chrysanthemum, the prefectural flower of Hyogo, our Himeji Plant has cultivated 160 varieties of this flower, including foundation stock, in a 2,000-square-meter green yard by the plant. Cultivation began in 1972 and by 1974 the Himeji Plant began

distributing seedlings annually in cooperation with Hyogo prefectural government. In April 2014, 34,500 seedlings were distributed to 321 organizations, including local governments, kindergartens, elementary and junior high schools, and community associations



reparing seedlings for shipr



Forest Development Initiatives

Contributing to Our Forests and Water Resources

- Location: Akasai Valley, Hara, Haga-cho, Shiso-shi, Hyogo prefecture
- Activities: Forest improvement, river biological surveys, and other activities

About three times annually beginning November 2008 Dates: In fiscal 2014, we engaged in three initiatives in May, August and October (Forest immersion tour).

Contributing to the "Yugawara Myriad Leaves Forest"

- Location: Kajiya, Yugawara-machi, Ashigarashimo-gun, Kanagawa prefecture
- Activities: Forest improvement, nature observation tours, and other activities

Dates: About two times annually beginning November 2013 In fiscal 2014, we engaged in two initiatives in May and October. The neighborhood residents of Yugawara-machi also participated and joined us in planting trees in the October event.

The Kanagawa Trust Midori Zaidan sponsored the activities in August.

Note: The forest development initiatives of Nippon Shokubai were undertaken in cooperation with the National Land Afforestation Promotion Organization and NPOs

Seedlings being loaded

Japan-China Friendship Forest Development and Global **Warming Prevention**

Location: Ejin Horo Banner, Inner Mongolia Autonomous Region, China

Activities: Afforestation, maintenance, management, and the like Annually, beginning October 2008 Dates:

In September 2014, we undertook a 7-day tour. For a change, we worked on tree planting during a period of blessed rainfall at a local site



Assisting the Community

Cleanup Campaign

We conduct periodic cleanups of the environs of all our plants. As part of the Kanzaki River Adopt-a-River Program in the neighborhood of the Suita Research Center, we participated in the Kanzaki Riverside Cleanup Campaign with a riverbed cleaning effort along the Kanzaki River in collaboration with local community beautification initiatives.



We grow sweet potatoes in the potato fields we have created in the green yard of the Himeji Plant. Each autumn, we invite neighborhood kindergartners and nursery school children to enjoy harvesting sweet potatoes. In fiscal 2014, more than 800 parents and children visited together.

We have been holding this activity since 1971 and it has helped us forge strong ties in the community. In fact, some of the children who harvested potatoes in the past are now employed with us.

Volunteer Initiatives

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

In fiscal 2014, employees participated in a summer gathering and a Christmas party that were enjoyed by all.

We hope to further expand our circle of volunteerism in the future.

Initiatives to Support Training

Hosting Internship Trainees

Each year from July to September, our various plants host trainees from technical colleges.

In fiscal 2014, a total of 26 students from 21 colleges gained experience through this program.



Science Booth Exhibit

In July 2014, we presented an exhibit at the Himeji City Science Museum. Our experimental booth was titled "Superabsorbent Polymer, the Mysterious Powder." We demonstrated our experiment a total of 20 times in two days, and a total of 280 children, from the very young to elementary and junior high school students, and their families.





Kanzaki Riverside Cleanup Campaign







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 iob 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.)

Re-employment System

This system corresponds to measures addressing the rescheduling of pension eligibility age and is intended to help stabilize the lives of retired employees through re-employment. The period of re-employment extends until the age of 65. This

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

initiative contributes to an employee's sense of security, self-worth, job satisfaction and motivation, as it provides ongoing employment in a familiar work environment.

* Re-employment rate of retired employees: 90%

A Positive Working Environment

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.





Ski tour held as an employee welfare even

Providing Balanced Assistance for Work, Child Care and Nursing Care

Japan's low birth rate and aging population remain pressing issues; therefore, it is essential that all sectors of society continue to support child care and nursing care. Private enterprises are also required to create an environment that supports a balance among work, child care, and nursing care. We are responding to these social realities by striving to create an environment and

Providing Balanced Assistance for Work and Child Care





Managing Mental and Physical Health

We promote a variety of measures related to management and promotion of healthcare through the health promotion office in each workplace. This is intended to assist our employees in living lives with healthy minds and bodies under the guidance of industrial physicians and nurses. In cooperation with the Nippon Shokubai Health Insurance Union, employees can undergo specific medical examinations and receive tailored health

quidance Moreover, we formulated a Mental Health Plan with the intention of preventing mental and physical illness while contributing to improved productivity and a bright, vibrant workplace. We also provide mental health training for all employees through position-specific training.

Toward a Sound Labor-Management Relationship Based on Mutual Respect

Nippon Shokubai and the Nippon Shokubai Labor Union, a member of the Japanese Federation of Energy and Chemistry Workers Unions, maintain a dialogue based on mutual respect. Through our good labor-management 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

At the Hakusan Ichirino ski slope

infrastructure that provides a variety of systems for supporting employees with their parenting and nursing responsibilities while employed. We also published a guidebook that summarizes our balanced support system, and we continue to keep our employees broadly informed and educated.

• Nursing care absence (for nursing an ill parent, spouse or child: 5 days per wage calculation period)

Responsible Care Activities

Responsible Care Initiatives

All companies in the chemical industry responsible for handling various chemical substances voluntarily agree to protect the environment and human health and safety in all processes ranging from the development of chemical substances to their manufacture, distribution, use, end consumption, disposal, and recycling. The results of these activities are publicly disclosed and the companies engage in dialogue and communication initiatives with the public. This effort is part of the initiative known as Responsible Care (RC). The RC Global Charter was developed in 2006 and revised in 2014 by the International Council of Chemical Associations (ICCA), which promotes Responsible Care worldwide.

Nippon Shokubai has participated in the Japan Responsible Care Council (JRCC; currently known as the Japan Chemical Industry Association Responsible Care Committee) since it was established in 1995. We actively promote Responsible Care by focusing on our main pillars: environmental protection; process safety and disaster prevention; occupational safety and health; chemical safety; quality; and communication with society





President's signature on the RC Global Charter (Revised 2014 version)

and

RC Policy

In conformity with the Nippon Shokubai Group Mission, Management Commitment, Corporate Credo, and the Nippon Shokubai Code of Conduct, 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.

	Aim at environmental protection and reduction of negative environmental impact throughout the entire life cycle of a product, from development to disposal.
2	Ensure the safety of our employees and our communities by targeting zero accidents and zero disasters with a commitment to the principle "Safety takes priority over production."
3	Confirm the safety of chemical materials, intermediates and products, and consider the health of our customers, employees of our logistics subcontractors, our employees, and others.
4	Stably supply products and associated services that meet customer satisfaction and inspire their trust.

Publicly announce the results of these activities and make an effort to communicate for 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 Responsible Care activities.



9th Medium-term Responsible Care Basic Plan (Fiscal 2014–2016) and Results

We formulated our 9th Medium-term Responsible Care Basic Plan as a three-year plan commencing in April 2014. As a continuation of our 8th plan, this plan enhances our initiatives to eliminate facility disasters, facility accidents, and occupational accidents. In addition, we have maintained our environmental impact reduction initiatives in the interests of sustainable development, and we are continuing to implement the priority initiatives intended to improve customer satisfaction and meet customer needs for functional products and the like. Moreover, we are enhancing our comp svstem.

		1	
	Objectives for Fiscal 2014–2016	Results for Fiscal 2014	
Environmental Protection	To reduce energy intensity by 25% from fiscal 1990 levels (96.2 //t) To maintain zero emissions ¹ Emissions of substances subject to the PRTR Law: To reduce by 20% from fiscal 2010 levels (Fiscal 2016 level: 90.8 tons/year)	Energy intensity: 106.1 l/t (Previous fiscal year: 124.8 l/t) Zero emissions achieved and maintained. Emissions of substances subject to the PRTR Law: 2% reduction	To prom 1) To pr and r 2) To pr catal 3) To ev emis
Process Safety and Disaster Prevention	Zero disasters Zero accidents	Zero disasters occurred. One accidents occurred.	In the w culture = 1) To cc • To t • To s • To in 2) To re • To r • To r • To r • To s • (1) To st • (2) To st • (2) To re • (2) To re • (3) To st • (3) To st
Occupational Safety and Health	 Zero injuries with loss of workdays³ (including contractors) Zero injuries without loss of workdays⁴ (including contractors) 	 Two injuries with loss of workdays occurred. Thirteen injuries without loss of workdays occurred. 	To foste and He 1) To cc • To s 2) To re intern 3) To in traini • To r • To e 4) To st • To e 5) To er
Chemical Safety	Zero problems related to chemical safety (legal or social problems)	Zero problems related to chemical safety occurred.	1) To co 2) To im mana 3) To ap and c (by c provi 4) To pr (by p Chen
Quality	Zero serious customer complaints Zero quality nonconformities ⁵	Two serious customer complaints were filed. Three quality nonconformities were discovered.	1) To pr 2) To str busir 3) To str 4) To str 5) To co
Communication with Society	To maintain a dialogue with stakeholders and implement reasonable information disclosure	The Himeji Plant participated in the community dialogue. The Himeji Plant implemented factory tour.	1) To pr socia 2) To di CSR
Developing RC a	among Our Group Companies ⁶ (Measures	Common to Our Group Companies)	
 Environmeni To reduce To reduces To reduces To reduces Coupation: (3) Occupation: (4) Chemical Sai (5) Quality: To risk (6) Communica (7) Managemeric 	al Protection energy intensity disposal at off-site landfills (Group com the amount of waste (Group companie emissions of substances subject to the sty and Disaster Prevention: To achieve al Safety and Health: To achieve zero inj ety: To achieve zero problems related to ci oceive zero serious quality complaints tion with Society: To maintain a dialogue reasonable information t System: To effectively implement the n	apanies in Japan) s outside Japan) I PRTR Law zero disasters and zero accidents uries with loss of workdays hemical safety (legal or social problems) e with stakeholders and implement n disclosure hanagement system	 Six of 1 Waste compa Reduc previo Emissi 32% of 2 Zero fa Five in Zero p Two se Publisi EMS: . Risk a

(In the calculation of total waste, the amount of sludge subject to activated stored ethydration.) 2 o LCA (carbon-Life-Cycle Analysis): A method of assessing greenbudge treatment is calculated before dehydration.) 2 o LCA (carbon-Life-Cycle Analysis): A method of assessing greenbudge treatment is observed a finished product incorporating chemical products and a comparison product containing no such chemical products when used by consumers and in other industries. The evaluation method calculates a chemical product's net contribution to GHG emissions reduction by determining the increased emissions ³ Injury with loss of workdays: Injury requiring at least one lost workday for medical treatment ⁴ Injury without loss of workdays: Injury requiring no so of workdays for medical treatment ⁵ Quality nonconformities: Involving a minimum loss of ¥1 million ⁶ Refers to group companies inside and outside Japan, unless otherwise specified.

5

	vo onornioar maria	gomon					
Evaluation: 😳 Achieved 😳 Partially /	Achieved 🔀 Not	Achieved					
Priority Initiatives		Self- evaluation					
ote continuous improvement through our environmental management system omote energy conservation initiatives and technical reviews in order to reduce waste elease of PRTR-controlled chemical substances omote development of technology to reduce CO ₂ emissions by improving process st and utilization of plant-derived raw materials aluate by means of c-LCA ² how all our products contribute to the avoidance of CO ₂ ions throughout their life cycles and publicly disclose the reductions achieved							
ake of the accident, we will improve our process safety capabilities by fostering a f safety and operating our process safety management system with diligence. nduct thorough risk assessments vorough risk assessments leadily implement irregular work management and change management nprove risk identification through HAZOP enhancement duce risk by collecting and sharing safety technical information (including information on al and external accidents and hazardous substance risk) hance education and training wiew the educational content and method for each rank and implement it nsure "know-why" knowledge and design ideas are carried forward trengthen suppositions and responses when failures occur engthen the "safety first" mindset nsure that employees of each rank dutifully fulfill their roles engthen the inspection system related to process safety mote earthquake response measures and measures for aging facilities engthen the support system for logistics safety mote earthquake the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety mote earthquake tesponse measures for aging facilities engthen the support system for logistics safety for the support system							
a safety culture and promote continuous improvement through the Occupational Safety lith Management System nduct thorough risk assessments leadily implement irregular work management Juce risk by collecting and sharing safety technical information (including information on al and external accidents and hazardous substance risk) prove knowledge and sensitivity to risk prediction through enhanced education and ig wiew the educational content and method for each rank and implement it nsure "know-why" knowledge and design ideas are carried forward engthen the "safety first" mindset nsure that employees of each rank dutifully fulfill their roles nhance communication across all ranks hance support for safety initiatives among our contractors							
lect, share, and effectively apply information on hazardous substance risk prove the function of the chemical substance management system through central gement of the information propriately comply with the laws and regulations on chemical substances both inside utside Japan llecting information on laws and regulations, keeping our employees informed, and ling information to our Group companies both inside and outside Japan) omote Global Product Stewardship (GPS) articipating in the Japan Initiative of Product Stewardship (JIPS) launched by the Japan ical Industry Association)							
mote initiatives to prevent quality issues and complaints engthen the quality assurance system for functional products and asses angthen the quality assurance initiatives of Group companies in Ja engthen the quality assurance system of locations outside Japan duct continuous quality training and raise awareness	note initiatives to prevent quality issues and complaints ngthen the quality assurance system for functional products and products of new sees ngthen the quality assurance initiatives of Group companies in Japan ngthen the quality assurance system of locations outside Japan duct continuous quality training and raise awareness						
mote RC community dialogue and plant tours while participating activities activities close the status of RC initiatives to stakeholders through the comp Report	actively in community pany website and the						
Results for Fiscal 2014	Priority Initiative	s					
4 Group companies reduced their energy intensity. subject to final disposal at off-site landfills was reduced by 35% red with the level of the previous fiscal year. ad the amount of waste by 12% compared with the level of the is fiscal year. ons of substances subject to the PRTR Law were reduced by pompared with the level of the previous fiscal year. cility disasters occurred. • Zero facility accidents occurred. uries with loss of workdays occurred. rious customer complaints were filed. ed an Environmental Report and participated in community events.	 To support their implet of accident counterme To improve the RC leve entire Group by streng support of all Group c 	nentation asures al of the thening ompanies					
Il Group companies have already introduced an EMS							

sessment: All Group companies have already introduced risk sments.

n 0.1% of the total amount of waste generated

Environmental Protection Initiatives

Environmental Impacts of Our Business Operations

We are engaged in various initiatives to reduce the environmental impacts of our business operations and to provide better products and services



Initiatives for Preventing Global Warming

Promoting Energy Efficiency

Reductions in energy intensity and CO₂ emissions intensity

In an effort to achieve the goals of the Kyoto Protocol, the Japan Chemical Industry Association has adopted the goal of reducing the chemical industry's energy consumption rate per unit of production ("energy intensity") to 80% of the fiscal 1990 level as an average value for the period fiscal 2008-12. In order to contribute to global warming mitigation without pause after fiscal 2013, the industry is pushing forward with energy efficiency and CO₂ reduction initiatives through Keidanren's Commitment to a Low Carbon Society.



With the goal of further improving energy efficiency, we will promote energy conservation initiatives at each of our plants in view of the goals included in the Action Plan for a Low-Carbon Society adopted by the Japan Chemical Industry Association.

Our results for fiscal 2014 show that energy consumption and CO2 emissions both increased. However, our energy intensity declined by 17% and our CO2 emissions intensity declined by 21% from fiscal 1990 levels.

Trend in CO₂ Emissions



* Excludes head office research centers, plant administration buildings and employee welfare facilitie d CO₂ emissions in fiscal 2014 totaled 6,539 kiloliters and 14,404 tons search centers, plant administration buildings, and employee welfar ount of energy consumed an ively, for the head office, re *Data for Group companies outside Japan covers the calendar year, January 1-December 31, 2014

Promoting CO₂ Emissions Reductions Throughout the Product Life Cycle c-LCA Assessment

The c-LCA assesses CO₂ emissions throughout the life cycle of a finished product incorporating chemical products and a comparison product containing no such chemical products. The emissions avoided are calculated as the net amount of emissions avoided as a result of the use of these chemical products.

Nippon Shokubai's products that are expected to contribute to the avoidance of CO₂ emissions



Note: The above assumed values are for comparative purposes only; the actual service life and performance are not guaranteed

Calculating the CO₂ Emissions Resulting from All Our Corporate Operations **Calculation of Scope 3 emissions**

Under	the	GHG	protocol,	we	divided	greenhouse	gas (GHG)
emissio	ons i	nto th	e following	g thr	ee categ	ories: Scope	1, 2 and 3.

Direct emissions: GHG emissions resulting from burning of fuel or other product as part of business operations

Indirect emissions: GHG emissions resulting from purchased energy such as purchased electric power

Other indirect emissions: GHG emissions resulting from all other company-wide activities (from resource extraction to product disposal)

Nippon Shokubai reported Scope 1 and Scope 2 emissions to the national government under the terms of the Energy Saving Act and has disclosed these in previous reports. In 2014, we also decided to begin calculating Scope 3 emissions.

Nippon Shokubai will continue to calculate Scope 3 emissions in the future as we investigate the possibility of reducing CO₂ emissions resulting from all corporate activities.

	Category	Emissions (CO2 e-t)
1	Purchased goods and services	1,418,477
2	Capital goods	51,103
3	Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	54,800
4	Upstream transportation and distribution	13,319
5	Waste generated in operations	1,980
6	Business travel	242
7	Employee commuting	699
	Total	1,540,620



ACRYSET

We developed an emulsion for application-type vibrationdamping materials intended for mounting on the lower part of a vehicle body in order to reduce noise and vibration from the engine and road surface. By using such material, it is possible to keep the vehicle light and energy-efficient.

> CO₂ emissions avoided throughout the product life cycle 310.000 tons

Calculation of CO₂ emissions avoided when an application-type vibration-damping material is installed in all automobiles manufactured in one year

Assumption for assessment

The annual travelling distance is assumed to 10,000 km with a 10-year service life Automobiles using asphalt sheeting as a vibration-damping material are compared and evaluated



Improving energy efficiency by introducing an innovative turbine generator.

Satoshi Kawamoto Chemicals Production Dept., Himeji Plant

As a member of the project team responsible for construction of the new acrylic acid production facility, I was in charge of everything from the construction of the mixed-pressure steam turbine to the establishment of the safe and stable operation system.

Using the waste steam from the plant that was largely transformed after the facility began operation in May 2014, we generate electricity without waste with this turbine, which can simultaneously supply steam at different pressures.

In the future, we intend to work on promoting a stable and effective energy management system for the plant's waste steam.

Initiatives for Eco-friendly Distribution

Promoting Modal Shift

As a means of fighting global warming through our logistics operations, we are taking steps to reduce our CO2 emissions intensity and implement exhaust gas countermeasures to control air pollution.

Although changing economic conditions can affect the amount of goods we ship and our CO2 emissions, we are implementing initiatives to reduce CO2 emissions intensity. These include modal shift, improved transport efficiency, introduction of digital tachometers (including GPS and drive recorders), and energy-efficient vehicle operation such as minimized idling and the installation of energy-efficient tires. Furthermore, we are increasing the use of tank containers for rail

Trend in CO₂ Emissions and Emissions Intensity Attributable to Domestic Logistics



transport in response to the increased shipping volume of our main product line, ethylene oxide.

As an air pollution control measure, we adopted the Kawasaki Eco-Transport System* (effective April 1, 2010) and began promoting three initiatives: eco-friendly driving and display of "eco-drive" stickers; elimination of vehicles that do not comply with laws regulating NOx and PM emissions; and widespread adoption of low-emission and energy-efficient vehicles

*An environmentally friendly transportation system established with the partial amendment of the "Kawasaki City Ordinance for Conservation of Life Environment including Pollution Prevention.



We increased the use of container cargo packing equipment and rail transpo containers for our main product line, ethylene oxide.



Eco-Transport System

RC Training

We provide ongoing employee training in Responsible Care for the purpose of improving their knowledge, skill, and understanding of overall RC initiatives. In keeping with our training curriculum for fiscal 2014, we provided

this training to new employees entering our company; to those being promoted to the position of subsection chief (in plants); and to those being promoted to manager throughout the company.

We intend to continue improving our RC training capabilities in the future.



RC training for recently hired employees



We participate in the community dialogue meetings held by the Responsible Care Committee of the Japan Chemical Industry Association and introduce our company's RC initiatives. Participants include members of residents' associations, administrators, NPOs, trade groups, and companies located in the same districts as our plants. This communication initiative is helping to promote mutual understanding.

In fiscal 2014, the Hyogo district meeting was held in Himeji, where the Himeji Plant participated as the lead company.



new waste liquid combustion facility.

To control air pollution, we are taking steps to reduce consumption of fuel oil and 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



NOx and COD totals are below the agreed values

Waste Reduction Initiatives

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

Addressing waste reduction 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 recovery and recycling of our waste.





Ox	NOx	Du
hazardous air pollutant. This is a general term r sulfur oxides such as sulfur dioxide (SO ₂) id sulfur trioxide (SO ₃), which are generated ainly 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 photochemical smog.	Fine inc oth

Modal Shift

and reduce our environmental impact.

Ton-kilomete

Transport ton-kilometer is a unit of transportation measurement referring to freight transport volume. As an index for precisely expressing transport as an economic activity, it is the multiple By changing our shipping method toward bulk transport using railways and ships, we are optimizing our transport method to conserve energy of freight haul distance (in kilometers) and the transported freight weight (tons).

Pollution Control Initiatives Targeting Air and Water

To handle the increased volume of wastewater resulting from our expanded plant, we installed a

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 and a waste liquid combustion furnace.

In fiscal 2014, we continued to implement our zero emissions policy by reducing the amount of waste subject to final disposal at off-site landfills through on-site treatment of production residues and by implementing thorough sorting for recovery and recycling. In fiscal 2014, we began posting waste-related data for our Group companies outside Japan.



Responsible Care Activities **Environmental Protection Initiatives**



Chemical Substances Control Initiative

We are focused on reducing our chemical emissions. 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.

Top 10 Substances Subject to the PRTR Released in Fiscal 2014

Government Released into No. Substance Subject to PRTR Released into Water Total Emissions Designation No. Atmosphere Boron compounds 39.42 39.42 405 0.00 400 10.46 0.00 10.46 Benzene Acrylic acid and its water-soluble salts 9.68 0.00 9.68 321 0.00 8.90 8.90 4 Vanadium compounds 80 Xvlene 7.76 0.00 7.76 5 300 Toluene 5.99 0.00 5.99 6 56 5.08 0.00 5.08 Ethylene oxide 4.09 58 Ethylene glycol monomethyl ether 4.09 0.00 3.53 3.53 7 Butyl acrylate 0.00 9 10 414 Maleic anhydride 2.04 0.00 2.04

Note: In fiscal 2010, acrylic acid and its water-soluble salts, vanadium compounds, and other substances were included in the PRTR.



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.

Environmenta	al Pro	otection Co	sts & Environmenta	al Prote	ction Be	enefits Applicable period: April 1, 2014–March 31, 2015 Scope: Nippon Shokubai (nonconsolidated) (mi	illions of yen)
Clas	sifica	tion	Main Initiatives	Amount Invested	Expenses	Effects	Relevant Page
Environmental protection cost related to control of the environmental impacts of our production and service business operations (Business area cost)		1. Pollution Control Cost	Preventing air and water pollution, controlling hazardous substances	463	2,499	No pollution problems occurred.	23, 24
	Break- down	2. Global Environmental Protection Cost	Energy efficiency (preventing global warming), cogeneration	877	2,407	Energy efficiency efforts resulted in a 21% reduction in CO₂ emissions intensity from fiscal 1990 level. • CO₂ emissions intensity Fiscal 2013: 0.498 t/t → Fiscal 2014: 0.439 t/t (11% reduction) (21% reduction)	20, 21
		3. Resource Recycling Cost	Appropriate treatment and disposal of industrial waste	8	511	 We maintained zero emissions by sorting and recycling our solid waste. Amount of waste subject to final disposal at off-site landfills Fiscal 2013: 32 tons ➡ Fiscal 2014: 27 tons 	23, 24
Cost of controlling the environmental impacts of production and service operations occurring upstream & downstream (Upstream/downstream cost)		Reuse of drum containers	0	38	Some of drum containers are reused.	_	
Environmental protection cost related to management activities (Environmental management cost)		Operation of environmental structure; acquisition and maintenance of ISO 14001 registration	0	630	All our plants successfully acquired certifications, and we enhanced our environmental management systems.	_	
Environmental protection cost related to R&D activities (R&D cost)		promental protection cost do R&D activities and manufacturing of green products 0 (1,804) (Conducting R&D of catalysts for treating wastewater containing or granic substance(s) and catalysts for dioxin decomposition or granic substance(s) and catal		Conducting R&D of catalysts for treating wastewater containing organic substance(s) and catalysts for dioxin decomposition	_		
Environmental protection cost related to social activities (Social activity cost)		Environmental-related contributions	0	42	Forest development initiatives	8, 9, 14	
Cost of dealing with environmental remediation		ost of dealing with environmental mediation nvironmental damage cost)		0	7	_	-

nvironmenta	al Pro	otection Co	sts & Environmenta	al Prote	ction Be	enefits Applicable period: April 1, 2014–March 31, 2015 Scope: Nippon Shokubai (nonconsolidated) (milli	ions of yen)
Clas	sifica	tion	on Main Initiatives		Expenses	Effects	Relevant Page
nvironmental		1. Pollution Control Cost	Preventing air and water pollution, controlling hazardous substances	463	2,499	No pollution problems occurred.	23, 24
rotection cost elated to control if the nvironmental npacts of our roduction and ervice business perations Business area ost)	Break- down	2. Global Environmental Protection Cost	Energy efficiency (preventing global warming), cogeneration	877	2,407	Energy efficiency efforts resulted in a 21% reduction in CO₂ emissions intensity from fiscal 1990 level. • CO₂ emissions intensity Fiscal 2013: 0.498 t/t → Fiscal 2014: 0.439 t/t (11% reduction) (21% reduction)	20, 21
		ess a	3. Resource Recycling Cost	Appropriate treatment and disposal of industrial waste	8	511	We maintained zero emissions by sorting and recycling our solid waste. ● Amount of waste subject to final disposal at off-site landfills Fiscal 2013: 32 tons → Fiscal 2014: 27 tons
ost of controlling the environmental npacts of production and service perations occurring upstream & ownstream (Upstream/downstream cost)		Reuse of drum containers	0	38	Some of drum containers are reused.	_	
invironmental protection cost elated to management activities Environmental management cost)		Operation of environmental structure; acquisition and maintenance of ISO 14001 registration	0	630	All our plants successfully acquired certifications, and we enhanced our environmental management systems.	_	
invironmental protection cost elated to R&D activities R&D cost)		Reduction of the environmental impact through development and manufacturing of green products	0	1,804	Conducting R&D of catalysts for treating wastewater containing organic substance(s) and catalysts for dioxin decomposition	_	
nvironmental protection cost elated to social activities Social activity cost)		Environmental-related contributions	0	42	Forest development initiatives	8, 9, 14	
Cost of dealing with environmental emediation Environmental damage cost)		_	0	7	_	_	
		Total		1,348	7,938	Economic Effects (Monetary Benefits) Resulting	
						from Environmental Protection Initiatives (milli	ions of yen)
eference					Effect	Amount	
Total investment for the period: 9,268 million yen					Operating revenue from recycling used	_	

Eiji Nashimoto

(tons)

In fiscal 2014, we released 112 tons of substances subject to

We remain focused on further reducing emissions toward our

the PRTR, which represents a 2% decrease in emissions

fiscal 2016 target of a 20% reduction from fiscal 2010 levels.

compared to fiscal 2010 levels.

		(minors of ye			
Reference		Effect			
Total investment for the period:9,268 million yenTotal R&D expenses for the period:11,230 million yen	Income	Operating revenue from recycling used products and waste generated by principal business activities	7		
	Cost saving	Reduction in expenses associated with energy conservation	1,230		
	Cost saving	Reduction in waste disposal cost accruing from resource conservation and recycling	1,631		
		Total	2,868		

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.

18,000 16,000 14,000 12,000 10,000 8,000 6,000 4,000 2,000

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



Message from the P
Profile of the Nippon Shokubai Group
Our Product Lines
Special Feature: Forest Development Initiatives
Nippon Shokubai's CSR Concept
Corporate Governance
Contributing to Society and Earning Public Trust
Responsible Care Activities
iew

Responsible Care Activities

Process Safety and Disaster Prevention Initiatives

Basic Approach to Safety Issues

We recognized that our company could not achieve true sustainable development without maintaining a focus on ensuring safety and upholding the trust of the community. Thus, in 1973, we adopted our corporate credo "Safety takes priority over production."



In the aftermath of the explosion and fire that occurred in the acrylic acid production facility of our Himeji Plant in 2012, we published our Safety Handbook under the direction of the president. This publication contains our corporate credo above, our safety management regulations, and our Safety Oath. We have made it a point to distribute this handbook to all our employees and keep them informed. On September 29, we held a Safety Oath Ceremony opposite our Safety Oath Monument at the Himeji Plant. At this time, we renewed our vow to improve our safety competency and ensure that our remembrance of this accident does not fade with time.





Safety Oath Monument

round-table safety meetings during the period.

of ownership under our corporate credo.

In addition, in July 2014 the president visited the production

areas of the Kawasaki Plant and Himeji Plant and engaged in

direct dialogue with plant employees on their safe operation

initiatives. After the visit, he again appealed to the employees

to commit to safe operation initiatives and to maintain a sense

Corporate Credo, Safety Oath

....

「安全が生産に優先する」

アナのまい

N.S.

BATBRACKER

ALEIT BUDGRACT

Committed to Restoring Public Trust in Nippon Shokubai as a Responsible Chemical Company

In the aftermath of the explosion and fire that occurred at our Himeji Plant, we have strengthened our commitment to our corporate credo, "Safety takes priority over production." We are now working to prevent any recurrence and ensure that no such accident ever happens again. In this way, we are truly underpinning our commitment to restoring public trust in Nippon Shokubai as a responsible chemical company.

Considering our own experience as well as other major explosions and fires that have taken place in recent years, concerned organizations have issued various action plans and guidelines. In response to all these matters that remain top of mind, we intend to further promote safe operation.

Our President's Determination to Ensure Safe Operation

In fiscal 2013, we adopted our own Safety Oath and established September 29 as Safety Oath Day to clarify our determination to never again allow such an accident to recur and to resolve to never let the memory of this accident fade with time. On our commemoration of Safety Oath Day in fiscal 2014, our president inaugurated Safe Operation Month (September 16 to October 15). The president then instructed all employees to discuss any accidents that might occur at their own workplaces and to determine what is required to ensure safety by holding company-wide and workplace-wide



visit to the Kawasaki Pla

Strengthening a Culture of "Safety Prioritization"

Safety is not something that can be granted from others; it is up to each individual to determine his or her own way forward and adopt safe practices. Nippon Shokubai believes it necessary that all employees reflect safe practices in their

Himeji Plant

Exercises Promoting Thorough Awareness of Safety Prioritization

Under the slogan "Changing the awareness and action of each individual by taking our Safety Oath to heart," each department and group is adopting safety action targets and is encouraging all employees to take up the challenge. We are engaging in active communication that includes setting of targets and confirming the results of the implementation effort

Ensuring Implementation of Risk Assessments

The possibility exists that heightened risk can arise from changes in the work environment such as construction of new production facilities, renovations, changes in plant processes, different operating conditions, and changes in work methods. Identifying and evaluating such risks before such changes are implemented and adopting safety measures is a practice known as "change management."

This fiscal year, in order to securely implement change management with greater assurance, we have strengthened the role of supervising safety engineers from the perspective of safety as well as risk assessment. We are employing HAZOP practices in existing production facilities and are conducting periodic risk assessments. The Himeji Plant has improved its education in methodology, while the Kawasaki Plant has reviewed its risk evaluation method.

Regarding storage of reactive substances, we conducted a review of the management standards for all tanks and added the necessary equipment and facilities in addition to strengthening inspection and monitoring. We also established judgment criteria and methods of conducting emergency response. We are now fully equipped with emergency stabilizer injection equipment for disaster prevention and have systematically carried out injection drills for tanks or the like.



Emergency stabilizer injection dril

Safety Competency Improvement Initiatives

In order to strengthen a culture of safety prioritization, in fiscal 2013, we re-examined our culture of "safety prioritization" using the Safety Culture Assessment Checklist of the Safety Competency Center, and we clarified existing issues. These issues were reflected as priority items to be addressed in the 9th Medium-term Responsible Care Basic Plan (fiscal 2014 to 2016). We are systematically implementing them as accident recurrence prevention measures and are committed to improving our safety competency.

In fiscal 2014, we received the third-party evaluation from the Safety Competency Center in the Kawasaki Plant and are participating in the initiatives of the Safety Competency Center as a supporting member company.

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 detection

initiatives

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organizational initiatives and personal action. We are engaged in an effort to strengthen our culture of safety prioritization by upholding practices that ensure safety while thoroughly identifying issues that could degrade safety.

Kawasaki Plant

Verifying Safety Implementation

Each employee checks the implementation of the basic safety actions by the person (group) in charge and confirms the strengths and weaknesses of an individual or the person in charge in a collaborative fashion. Moreover, we set action targets for the individual and person in charge and semiannually confirm the improvement status of all employees. In this way, we are enhancing safety communication within our group and raising awareness of individual activities.

Enhancement of Safety Education and Training

In order to strengthen skills and abilities related to safe operation for our production division, we established a company-wide standard. We clarify the skills and abilities required for safe operation to employees in various positions in our production division and promote the content of the training programs used for these positions.

In fiscal 2014, we invited a lecturer from the Sanyo Association for Advancement of Science & Technology and held two sessions on safety, stable operation and risk management. These sessions were mainly intended for employees at the rank of foreman or above, and a total of 120 employees attended. These training sessions focused on the risk and safety management techniques that support a chemical plant, and through them we are striving to improve knowledge of safe operation and safety awareness. We will continue to offer these in the future.



Disaster preparedness training for chemical plants using case histories

Verifying Our Safety Management Practices

We continued our workplace-wide inspections initiated in fiscal 2013 under the theme "implementing measures to prevent accident recurrence '

At our Himeji Plant, the head office began implementing safety audits in fiscal 2014 in an effort to strengthen our safety CSR

Safety Competency Center

The Japan Society for Safety Engineering established this third-party safety organization in April 2013 to disseminate the safety competency evaluation system throughout industry.

Promotion of Voluntary Safety Initiatives

Since our company was established, we have been promoting voluntary safety initiatives aiming at zero accidents as we have incorporated our own proprietary technologies in our production operations.

High-Pressure Gas Safety Certified Plants

The Ministry of Economy, Trade and Industry has certified the Chidori Plant and Ukishima Plant at our Kawasaki Plant as "Certified Completion Inspector and Certified Safety Inspector" for high-pressure gas. A recertification inspection is conducted every five years. According to the terms of our safety management regulations, both plants undergo audits by our head office, with the managing executive officer in charge of the Responsible Care Division as the audit chairman. This audit evaluates whether the operational status of the high-pressure gas safety management system and the inspection management organization are functioning exactly as intended.

Implementation of Various Emergency Drills

Having established emergency response systems at each plant, we systematically conduct various types of emergency drills every vear

The Himeji Plant, in collaboration with the organizers comprising Hyogo Prefecture, Himeji City, Himeji Coast Guard Office, and Himeji Waterfront District Disaster Prevention Council, conducted "Hyogo Prefecture General Emergency Drills for Petrochemical Complexes and Other Facilities."

At the Kawasaki Plant, we conducted joint emergency drills with the Rinko Fire Department and the local disaster prevention council.

We give thorough consideration to the problems identified in our various drills so that we can review and strengthen our emergency response system as well as our education and training programs.

Earthquake Preparedness

In fiscal 1995, following the Great Hanshin-Awaji Earthquake, we conducted a review of our earthquake countermeasures. After the Great East Japan Earthquake struck, we again reviewed earthquake preparedness by incorporating a focus on the potential for tsunamis. We are now using this plan to guide the measures we are implementing in order to further improve safety from the perspective of both the tangible and intangible.

In addition, to ensure our initiative adheres to seismic standards for high-pressure gas facilities, we confirmed that all intersecting portions of steel tube bracing for spherical reservoirs meet the seismic standards. As for tank towers, we are now in the process of reviewing a notice received from the Ministry of Economy, Trade and Industry in May 2014. As for piping facilities, we are engaged in confirming the level of conformity

Interview

Improving the emergency response of our plants through emergency response training programs

> Hiroaki Ikegami Disaster Prevention Section Environment & Safety Dept., Himeii Plant



Our Disaster Prevention Section conducts emergency response training and seeks to maintain or improve the plant systems that can respond quickly should an emergency arise. As a fire engine squad leader, I am in a position to exert command, and I must exercise safe judgment and precision. Thus, it is essential that I continue to improve my skills. The members of our section actively participate in external emergency response training and drills in



ated training drill for facilities handling hazardous substance (hosted by the Hazardous Materials Safety Techniques Association)

Responsible Care Activities

Hyogo Prefecture General Emergency

Drills for Petrochemical Complexes and

Other Facilities

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Logistics Safety Initiatives

Emergency drill at the Ukishima Plar

in the Kawasaki Plant

We are committed to improving our ability to respond to accidents on transportation routes by periodically conducting drills at all our plants. Through this effort, we are helping to prevent accidents during product shipments while minimizing damage should an accident occur.

Moreover, we installed GPS units in all tanker trucks transporting our ethylene oxide products. This initiative enables us to accurately monitor the locations of these trucks so that we, as the shipper, can promptly respond when required.

We conduct annual audits of the logistics safety of our distribution contractors and seek to achieve continuous improvements in logistics safety.



Disaster-response drill to addr shipping EO accidents that can occur en route

Responsible Care Activities

Occupational Safety and Health Initiatives

Ensuring Continuous Improvement Through Our Occupational Safety and Health Management System

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

Also, we are committed to achieving zero industrial accidents by systematically implementing "KY" (kiken yochi, or "risk prediction") campaigns, "close-call" incident (hiyari hatto) reporting campaigns, our "5S" campaigns, and a variety of drills and training classes.

Risk Assessment

KY Campaign

Since the introduction of the Occupational Safety and Health Management System, the company has undertaken risk assessments of each workplace, reducing or eliminating the sources of risks associated with work. With the recent increase in the number of young employees, we have re-evaluated risks from the perspectives of young employees, evaluated risks by segmenting work processes, and evaluated examples of risks from close-call incidents (hivari hatto) and low-frequency work. We are fully engaged in improving safety in the workplace.

In an effort to prevent industrial accidents, we are committed to

daily safety initiatives targeting work-related risks, and we remain

focused on our KY risk prediction campaign. We implement

group KY before work, KY for individual workers, and radio

(Mobix) KY coordination between workers and the control room.

We also carry out systematic KY-focused drills and training, such

Occurrence of Industrial Accidents

as KY training with case sheets and KY workshops.

In fiscal 2014, we experienced zero injuries with loss of workdays and six injuries without loss of workdays. Our contractors experienced two injuries with loss of workdays and seven injuries without loss of workdays. We are focused on



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-containing products on occasion. Therefore, we are contacting employees and retirees regarding health issues and are implementing a phase-out of asbestos-containing products.

In 2006 and 2009, we sent out information about asbestos-related medical examinations to retirees, offering them an annual medical examination at our expense. To date, a total of 74 retired employees have been issued a Health Check Note. Six persons were awarded industrial accident compensation benefits under the Industrial Accident Compensation Insurance Act. Three persons were awarded special compensation benefits for bereaved families under the Act on Asbestos Health Damage Relief.

In the future, we will continue to support our retirees and employees with asbestos checkups and consultations. Information regarding medical examinations has been posted on our website (www.shokubai.co.jp/ja/news/pdf/20090528.pdf). Regarding substitutes for asbestos-containing products, we have adopted substitutes in cases where the asbestos was at risk of becoming airborne or wherever the potential existed for human contact with the product. As for other asbestos-containing parts,

we are systematically phasing them out whenever the opportunity arises.

On-site Training Sessions

We hold a variety of on-site training sessions that provide operators and workers with hands-on training in skills such as valve opening and closing as well as flange disassembly and reassembly. Training also includes dealing with exposure to liquids, electrical hazards, and risks of working at height as well as demonstrations of the entanglement hazards of rotating machinery



preventing recurrence of these incidents by providing information on thorough case studies of these industrial accidents and their countermeasures with the involvement of peer groups.

Chemical Safety Initiatives

Promoting Chemical Management

We have established a Chemicals Total Management Committee and have implemented a variety of initiatives to work toward our goal of zero legal and social issues related to the chemical substances contained in products. This effort applies throughout the product life cycle from the R&D stage to disposal at the end of the product service life.

We are upgrading our internal systems across the global operations of our Group in order to comply with national and international laws and regulations related to chemical products. Moreover, we are committed to providing our customers with information on relevant laws and regulations as well as product safety information.

Ensuring the Safety of New Products

We have introduced a gate system at each stage from R&D to commercialization. In order to maintain safety throughout the product life cycle that encompasses material procurement, processing, production, application, and disposal according to the terms of Responsible Care, we apply our technical expertise at each stage to determine whether to proceed to the next stage.

Product Safety Initiatives

We prepare GHS-compliant warning labels, SDSs, and Yellow Cards for the logistics sector and provide information to customers while promoting training sessions for our employees. Regarding application-specific products used in pharmaceutical raw materials, pesticides, cosmetics, and food additives, our Product Safety Review Sub-committee conducts stricter checks on product safety while ensuring compliance with the Product Liability Act.

Accommodating Chemical Registration **Requirements Within and Outside Japan**

In collaboration with specialized institutions and our Group companies outside Japan, we are responding appropriately to laws and regulations both within and outside Japan that require us to register chemical substances. Regarding the European Union's chemical regulation known as REACH, we registered all substances subject to the two registration deadlines of November 30, 2010, and May 31, 2013. We will continue to promote such initiatives toward the upcoming May 31, 2018, registration deadline. We also intend to respond to recently enforced chemical registration regulations in South Korea and Taiwan.

Addressing Import/Export Controls

In order to ensure legal compliance regarding imports and exports, we have streamlined our process for strengthening company regulations; determining whether a product is subject to import/export restrictions; keeping our employees informed about whether a product has been subject to import/export restrictions; recording applicable items on the relevant SDS; and improving our shipping management system for coordination with our enterprise resource planning (ERP) backbone accounting system. We also conduct regular internal training on import/export management.

Green Procurement Initiatives

For substances that are regulated or highly hazardous, we have independently assigned them to two categories: "prohibited substances" 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.

Promoting a Voluntary Initiative of the JCIA

We participate in JIPS (Japan Initiative of Product Stewardship), a voluntary initiative for strengthening chemical management promoted by the Japan Chemical Industry Association, by which a chemical safety abstract is prepared and released to the public.

Establishment of a Chemical Substance Management System

We are implementing a comprehensive chemical substance management system that can respond quickly to risk assessments, the issuance of SDS, and surveys from customers guerying us on the chemical content of our products. We have created and launched this system by providing centralized management of various types of information encompassing chemicals, raw materials, hazardous materials, and regulations.

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ALC MARKED IN COMPANY

Children Cold Street

(for use within Japan)

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Sample warning labe Are stone and patient



(for use outside Japan)



SDS

An abbreviation for Globally Harmonized System of Classification and The Safety Data Sheet lists a chemical's properties as well Carriers who transport hazardous materials and toxic substances Labeling of Chemicals, GHS reflects the risks and health and as data on its safety, transportation requirements, applicable must carry a yellow card for reporting information about their environmental hazards of chemicals determined in accordance with laws, proper handling, and specific emergency response cargo to fire squads in the event of an accident. The yellow card international standards. Under this system, products identified as measures in a prescribed format. We compile an SDS for lists a chemical's hazards, first aid procedures in an accident, and presenting a risk or hazard are categorized according to test data and the information is displayed on labels on product packaging containers and in implementing a system for distributing these documents to Responsible Care, the Japan Chemical Industry Association the respective SDS. Countries in Europe and Asia have also introduced all employees through our chemical substance management prepares and manages guidelines on the procedures for this system on the recommendation of the United Nations. This system is system as well as to our customers. enforced in Japan through the Industrial Safety and Health Act.

Yellow Card

preparing a yellow card in order to strengthen first aid measures in the event of an accident.

Responsible Care Activities

Quality Assurance Initiatives

Promoting Quality Initiatives

We give the highest priority to providing products and services that fully satisfy our customers while earning their trust through continuous quality improvement.

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. From the product development stage through to manufacturing and delivery, we implement our quality assurance initiatives from the customer's perspective

We are dedicated to continuous improvement of our quality management system to ensure our customers are satisfied with the stable high quality of our products and services.



Promoting Initiatives to Address Quality Issues

We respond quickly to any quality issues that arise and share information throughout the company by compiling it into a database to visualize the progress of the response. At the same time, we are preventing quality issues from occurring through company-wide distribution of case histories.

In addition, we provide appropriate advice on quality issues to Group companies inside and outside Japan and conduct quality exchange meetings and quality audits. In this way, we remain proactively committed to preventing the emergence of quality issues.



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Risk Assessment of Chemical Substances

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

Green Procurement

through recycling and the like. This initiative with the least environmental impact.

This initiative responds to the national policy to To achieve the UN-mandated goal of "minimizing chemical risks to human promote the purchase of products and raw health and the environment from manufacturing and using chemical materials with reduced environmental impact products with the aim of achieving the targets by 2020," the chemical industry is strengthening its chemical management on a global scale. The guides companies in their purchase of raw Japan Chemical Industry Association is promoting an initiative named Japan Initiative of Product Stewardship (JIPS) in Japan. It conducts risk to promote the preferential selection of products evaluations of chemicals, prepares safety abstracts that clearly list the results of the evaluations, and releases this information to the general public to improve public awareness.

GHS

Halal Certification Acquired for Organic Acid **Food Additives**

We produce several food additives, including succinic acid, succinic acid disodium (under the brand name "SS50"), and fumaric acid, and its raw material, maleic anhydride. The Japan Muslim Association has granted these products halal certification on the approval of the Shariah Research Institute of Takushoku University.

Consumption of processed foods such as instant noodles has recently been increasing along with the diversification of eating habits in Southeast Asia. Succinic acid, succinic acid disodium, and fumaric acid are widely used as seasonings or pH regulators in such processed foods, and further demand growth can be expected.

However, Southeast Asia, and most notably Malaysia and Indonesia, is home to many Muslims and demand for halal certification of food additives has been increasing at local food processing sites. This acquisition of halal certification meets the particular needs of food processors and consumers regarding succinic acid, succinic acid disodium, fumaric acid, and its raw material maleic anhydride, which are in high demand as food additives in Southeast Asia.

By responding to social needs in a wide range of fields, we are providing society with greater richness and comfort.



JIPS

Responsible Care Activities

Production Site Reports

Himeji Plant



We enhanced educational drills and training to improve our employees'

General Emergency Drills for Petrochemical Complexes and Other

Facilities." We strengthened our cooperation with the organizations

concerned and improved our emergency response capability. We

routinely conduct various disaster prevention drills with the goal of

On November 5, 2014, our plant conducted "Hyogo Prefecture

safety awareness, knowledge, and skills in fiscal 2014.

Plant Outline

Plant Manager: Kenji Rakutani, Executive Officer Location: 992-1 Aza-Nishioki, Okihama, Aboshi-ku, Himeji Number of employees: 958 at the Himeji Plant; 180 at research centers in the Himeii district

Products: Acrylic acid, acrylates, maleic anhydride, superabsorbent polymers, resin modifiers, electronic information materials, De-NOx catalysts, dioxins decomposition catalysts, and other products

Fiscal 2014 Results of RC Activities

- We emphasized the strengthening of our culture of safety prioritization and the improvement of our safety awareness, knowledge, and skills.
- Regarding earthquake preparedness, we are steadily implementing facility safety measures.
- Our employees suffered zero injuries with loss of workdays and three without loss of workdays; our contractors suffered two injuries with loss of workdays and six without loss of workdays.
- Compared to 2013 levels, we decreased our energy intensity by 26%; increased our emissions of substances subject to the PRTR by 5%; and increased our waste emissions by 10%.

On the facility side, we are improving our earthquake preparedness, which includes beefing-up our earthquake countermeasure in terms of emergency equipment such as firefighting pumps and emergency generators

Because our contractors experienced an increase in industrial accidents in 2013, we assisted our contractors in strengthening their safety management practices.



Kawasaki Plant





Teruo Kamei, Plant Manage

After identifying the issues common to serious accidents, we took steps in fiscal 2014 to review our risk evaluation method and improve our training through the use of accident case histories.

Furthermore, we are systematically incorporating safety drills and other facility countermeasures in response to the potential for major earthquakes and tsunamis.

In terms of our safety record, one employee suffered injuries without loss of workdays, and a contractor suffered one injury without loss of



Plant Outline

Plant Manager: Teruo Kamei

- Location: Chidori Plant
 - 14-1 Chidori-cho, Kawasaki-ku, Kawasaki Ukishima Plant
- 10-12 Ukishima-cho, Kawasaki-ku, Kawasaki Number of employees: 352
- Products: Ethylene oxide, ethylene glycol, ethanolamine, secondary alcohol ethoxylates, polymers for concrete admixture, acrylic acid special ester, and other products

Fiscal 2014 Results of RC Activities

- In light of the serious accidents that took place in recent years, we took steps to strengthen our safety measures in 2014. • We systematically implemented facility countermeasures and drills against potentially large earthquakes and tsunamis.
- Our employees suffered one injury without loss of workdays and our contractors suffered one injury without loss of workdays.
- We proceeded with our planned initiatives to reduce our energy use and reduce waste emissions.
- workdays. We strengthened safety measures, including conducting a review of work procedures.
- We are steadily implementing plans to improve our energy efficiency and reduce waste emissions. We are pushing forward with a series of improvements despite increased emissions of substances subject to the PRTR.
- We will continue to promote our Responsible Care initiatives with the goal of ensuring our plant remains safe and reliable.



Providing Support for Group Companies

We are actively extending Responsible Care to Group companies both inside and outside Japan.

Initiatives for Group Companies

Responsible Care Interviews

In the interests of reinforcing Group management, we are actively promoting Responsible Care throughout the Nippon Shokubai Group. The members of the Nippon Shokubai Responsible Care Division visit Group companies inside and outside Japan in order to extend the implementation of Responsible Care. The members engage in active discussion of Responsible Care policies and the implementation status of the Responsible Care plan. In addition, we go on site tours to verify the activities

In fiscal 2014, the members visited all domestic Group companies as well as NA Industries, Inc. (U.S.A.) and Nippon Shokubai Europe N.V. (Belgium). Because Group companies outside Japan adopt the systems unique to their respective countries, regions or localities, we engaged in discussions focused on disaster prevention and occupational safety regarding the implementation status of Responsible Care, including the current response to those systems.



Responsible Care interview at Nippoh Chemicals

Responsible Care interview at NA Industries, Inc. (U.S.A.)

continuous improvement incorporating the PDCA cycle.

improvements and corrective action as needed

management system.

We also audited for proper compliance with legal

requirements — including the Industrial Safety and Health Act

and the Fire Service Act - as well as activities based on

regulations and standards related to safety and the

environment. In this audit, we requested suggestions for

them in order to maintain or improve our environmental safety

We will continue with these audits and provide support for

Environmental Safety Audits

In fiscal 2014, the members of the Nippon Shokubai Responsible Care Division began to visit all the domestic Group companies to perform environmental safety audits in addition to Responsible Care interviews. This was an opportunity to perform Responsible Care interviews and strengthen the environmental safety management system of domestic Group companies.

In our audits, we confirmed whether the management system responsible for process safety and disaster prevention as well as occupational health and safety is connected to

Reciprocal Responsible Care Audits

Twice annually, those in charge of Responsible Care in each Group company assemble at another Group company for the purpose of improving the quality of Responsible Care at our domestic Group companies. They carry out comprehensive audits on Responsible Care implementation. By auditing other companies' Responsible Care activities, they can apply corrective action to their own initiatives.

They also exchange information and discuss the situation regarding horizontal deployment in each company in response to industrial accidents of Group companies and Nippon Shokubai's facility disaster of 2014.

In fiscal 2014, reciprocal audits were conducted at Nippon Polyester Co., Ltd. and Nisshoku Techno Fine Chemical Co.,



Responsible Care Activities

Initiatives of Group Companies

Group Companies in Japan

Nisshoku Butsuryu Co., Ltd.

Principle business Logistics of chemicals

The Nisshoku Butsuryu Group continues to sharpen its focus on environmental protection, distribution safety, and distribution quality. At the same time, it aims to become an even better logistics company that warrants the full confidence of shippers and customers alike for implementing a management system according to ISO international standards. The following are examples of its initiatives.

- · Proactively pursuing a commitment to safety management (transportation safety management) as a truck transport company and introducing a combination of digital tachometers. GPS units, and drive recorders (comprising an advanced driving information system known as Mimamorikun), lane-departure warning devices, and supplemental rear-view cameras. The introduction of these safety devices follows risk evaluations supporting energy-efficient driving methods, safe driving, and accident response
- In fiscal 2014, vehicles mounted with pre-collision warning systems* were introduced to help prevent accidents. Installation of such collision mitigation brake systems will be made mandatory beginning in November 2014.
- · Systematically conducting voluntary checks of tankers in an effort to prevent leakage during transport.



Tokyo Fine Chemical CO., LTD.



In fiscal 2014, Tokyo Fine Chemical commemorated its 60th anniversary, a year that marked a turning point. The company updated its work uniforms at its plant and adopted Responsible Care with a new attitude under the corporate credo, "Safety takes priority over production.

In the area of occupational health and safety, the company strengthened its risk assessments and enhanced its safety displays, achieving zero industrial accidents. In the area of process safety and disaster prevention, the company registered zero accidents and disasters by strengthening facilities such as safety measures and deterioration updates.

The company also actively participates in and cooperates with local administration and firefighting organizations and conducts beautification campaigns on roads around its plant. The company aims to enhance and improve its Responsible Care implementation in the future





on roads around the plant

Participating in the 2015 New Year's parade of fire brigades in Yokosuka

NIPPON POLYESTER CO., LTD.

Manufacture and sale of polycarbonate sheet, Principle business FRP products, and other plastic products

To improve energy efficiency and the work environment, Nippon Polyester has been working hard to reduce its environmental footprint. It reduced its electrical energy consumption by adopting LED illumination in the plant and warehouse building: reduced its water consumption by converting the vacuum pumps in the production facility from water-sealed models to dry pumps; and employed a substitute for dichloromethane, which is subject to the PRTR law.

In addition, the company reviewed its risk assessment methods and introduced the quantitative risk evaluation method.





CHUGOKU KAKO CO., LTD.

Principle business

Manufacture and sale of adhesive-processed products and fine sphere particles

Chugoku Kako actively pursued its goal of zero accidents; unfortunately, one injury with loss of workdays and one injury without loss of workdays have occurred since 2001. The company implemented proactive preventive measures against any recurrences and confirmed their adoption

In addition to continuing the close-call (hiyari hatto) campaign, the

company will enhance its health and safety activities by establishing a monthly priority objective and will focus on ensuring that the company maintain the trust of the community.



Health and safety patro

Interview

Reducing Fuel Consumption of the Exhaust Gas Treatment Facility

Kenichi Yamada Production Section II CHUGOKU KAKO CO., LTD.



Organic solvent gases generated during production processes are burned in the exhaust gas treatment facility. With this initiative, we set out to reduce the consumption of kerosene used as fuel in this process. We were able to reduce our fuel consumption by 10% compared with fiscal 2013 levels by setting rules for the facility setup time and by reducing standby time. In the future, we intend to achieve greater energy efficiency through such operational efficiencies.

Group Companies in Japan

NIPPOH CHEMICALS CO., LTD.

Manufacture and sale of iodine, intermediates for API and Principle business agro-chemicals, photo/electro chemicals, and flame retardants

In July 2014, Nippoh Chemicals experienced an accident without loss of workdays that involved worker exposure to a toxic substance. That same month, a chlorine leakage occurred, although no environmental impact resulted. The company took these incidents very seriously and declared that August would be "Safety Improvement Month" for regular maintenance. The company then adopted a new safety slogan campaign and strengthened its conventional initiatives, which include risk assessment, "KY" risk prediction, "HH" close-call incident reporting, and patrols. Thanks to this company-wide campaign, the company was able to complete regular maintenance without a work accident.

In December, however, an accident without loss of workdays resulted from an incision wound from a polyvinyl chloride cutter. The company thus reiterated the need for continuous improvement of its safety awareness.

With revisions to the Industrial Safety and Health Law imposing risk assessments for chemical substances, the company began conducting seminars specifying appropriate in-house procedures.

For fiscal 2015, the company has adopted the stated goal of "absolutely zero industrial accidents" and has set out to raise awareness of safety while fostering a stronger safety culture.



afety patrol with occupational health

and safety consultants



OHSMS internal auditor training

NISSHOKU TECHNO FINE CHEMICAL CO., LTD.

Manufacture and sale of polycyclic aromatic Principle business hydrocarbons, (meth)acrylic acid derivatives, and photo/electro chemicals

Nisshoku Techno Fine Chemical's environmental protection initiatives have been focused on waste generation, energy efficiency, and emissions of substances subject to the PRTR. Their goal is to reduce emissions intensity levels to their respective fiscal 2012 levels. They managed to come very close to achieving their stated goals. In particular, the company was able to reduce waste by adopting in-house treatment of waste liquid that had previously been treated externally.

In the area of occupational health and safety, the company experienced one injury without loss of workdays in fiscal 2014. They reviewed their operations and were engaged in clarifying risks through risk assessments. But this operation was not clarified. The company will continue to clarify risks through risk assessments and will target zero injuries with and without loss of workdays by utilizing "KY" risk prediction and "HH" close-call incident reporting.

The "5S" campaign remains fully active and is addressing improvements including safety initiatives. Improvement reports were submitted by groups and individuals and by members of various circles



Off-premises cleanup under the "5S" campaign

NIPPON NYUKAZAI CO., LTD.

Principle business Manufacture and sale of surfactant and other chemicals

As an occupational safety initiative in the first fiscal year of the 3rd Responsible Care Medium-term Promotion Plan (fiscal 2014 to 2016), Nippon Nyukazai focused on risk assessments of infrequent operations. The company identified the risks and implemented countermeasures regarding inside-tank work, equipment removal, pipe cleaning, and operations carried out at height.

In terms of environmental protection, the company greatly reduced its energy intensity through capital spending on the Heat Recovery System at the Kashima BG Plant and by improving operational control of the Kawasaki thermal oil heaters and incinerators. In addition, the company was able to reduce its waste intensity by more than 5% by improving its washing method at the time of product changeovers.

In terms of process safety and disaster prevention, the company addressed the issue of accidents on transportation routes by implementing its first joint response drills with logistics companies at its Kawasaki Plant, using the experience gained from a transportation route accident that occurred in March 2014. In addition, with revisions to emergency response regulations, the company defined certain positions, such as that of "firefighting technology facilitator," and strengthened the organizational system of the in-house disaster response team. The company plans and carries out drills based on the realities experienced in actual emergencies

In the future, the company will strive for greater operational safety while further promoting and enhancing its Responsible Care initiatives



Response drill for accidents occurring on transportation routes

NIPPON POLYMER IND. Co., Ltd.

Principle business Manufacture and sale of acrylic resins

The Water Pollution Control Act was revised in order to prevent groundwater contamination due to leaks and underground seepage from hazardous substance storage and usage facilities as well as incidental facilities. The company examined countermeasures for substances subject to these laws that are used by the company.

In fiscal 2014, liquid protective barriers for storage facilities (tanks) were installed as part of an improvement strategy to prevent ground penetration.



Installation of protective barrier for ammonia tan

Group Companies Outside Japan

PT. NIPPON SHOKUBAI INDONESIA

Manufacture and sale of acrylic acid, acrylic esters, Principle business and superabsorbent polymers

For the second time, the Indonesian Ministry of Industry presented PT. Nippon Shokubai Indonesia with the Green Industry Award.

Under our corporate credo, "Safety takes priority over production," the company has adhered to the slogan, "The person who noticed is responsible

The company is committed to implementing the following initiatives through its environmental and occupational safety management systems:

• targeting zero landfill disposal of hazardous and toxic waste and promoting the "3 Rs" (reuse, reduce, and recycle); and

• turning off lights and air conditioners except when necessary as an energy conservation measure.

By adopting the following measures intended to overcome human error and prevent chemical injuries, the company is committed to achieving a record of zero industrial accidents:

• practicing "Pointing and Calling," "Reply Instruction," and "Real Time KY" with video teaching materials;

• improving safety awareness through occupational safety training; · evaluating the risks of transporting chemical substances through distributor audits; and

· conducting annual firefighting drills in order to improve emergency response capability.

In September 2014, Sino-Japan Chemical acquired certification under the Taiwan Occupational Safety and Health Management System (TOSHMS), a strengthened version of OHSAS 18001. in order to strengthen and extend its occupational safety and health management. As for TPM activities, the company established five subcommittees (self-maintenance, planning maintenance, education and training, individual improvement, and environmental health & safety) that have since undertaken full-scale initiatives. The subcommittees considered facility maintenance and improvements to the production system. The results of this effort have been shared throughout the company.

Green award ceremony from the Indonesian Ministry of Industry

Joint firefighting drill in collaboration with neighboring company

Interview



We improved our acrylic acid plant in 2014. We can now treat exhaust gas effectively without creating an environmental load, thus reducing our energy consumption by 1.1 teraioules Going forward, we intend to achieve even greater energy efficiency.





Commendation awarded at a safety meeting

SINGAPORE ACRYLIC PTE LTD

Principle business Manufacture and sale of crude acrylic acid

Singapore Acrylic won first place in a safety slogan contest held by SMAG (an organization comprising four neighboring companies) to promote additional safety initiatives. In 2014, the company advocated chemical safety as a priority issue and incorporated improvements in its employee chemical safety awareness initiative through various types of training.

In the wake of the 2012 Himeji Plant accident, the company improved its portable emergency polymerization inhibitor injector as a safety upgrade to prevent fire and explosion. It also revised its operational response manual for use in the event of an emergency and publicized it among all operators. Furthermore, the company will carry out regular emergency response drills



Training drill on use of emergency polymerization inhibitor injector

SINO-JAPAN CHEMICAL CO., LTD. (Taiwan)

Principle business Manufacture and sale of surfactant and other chemicals



Forklift skills competition sponsored by the Education and Training Subcommittee



TOSHMS certificate

Message from the President
Profile of the Nippon Shokubai Group
Our Product Lines
Special Feature: Forest Development Initiatives
Nippon Shokubai's CSR Concept
Corporate Governance
Contributing to Society and Earning Public Trust
Responsible Care Activities
hird-Party Review

Group Companies Outside Japan

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

Principle business	Manufacture and sale of superabsorbent polymers, polymers for concrete admixture, water soluble polymers, and acrylic emulsion
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To ensure appropriate safety and environmental conservation, NA Industries provides a variety of on-the-job training and safety operations training utilizing web-based systems; it remains committed to facilitating in-house communication. Through this initiative, the Chattanooga (Tennessee) Plant was able to boast of "No Lost Time Accidents" for four consecutive years as of 2014.

Working in collaboration with the neighboring company, American Acryl L.P., the Houston (Texas) Plant assembled a joint emergency response team and conducted fire, lifesaving, and chemical leakage drills.

The Chattanooga Plant installed additional tank sensors in order to improve safety and environmental response. It also adopted measures to prevent soil pollution in the event of a chemical leak.



Firefighting drill by joint emergency response team



Rope rescue drill at height





Firefighting dril



Principle business Manufacture and sale of superabsorbent polymers

In order to improve its emergency response capabilities, Nippon Shokubai Europe prepared an emergency scenario and conducted several emergency response drills. From the results of these drills, the company reviewed its emergency response plan.

In addition, the company collaborated with adjacent chemical companies and the municipal fire brigade to carry out a joint emergency response drill. As this drill was unannounced, the concerned parties were able to further strengthen their cooperation as a result.



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

Principle business	Development, manufacture and sale of superabsorbent
	polymers and polymers for concrete admixture

Nisshoku Chemical Industry has long maintained a commitment to environmental, safety, and quality assurance initiatives. In September 2014, the company became a member of the Responsible Care Association in the Zhangjiagang Free Trade Area

The company also conducted disaster response drills in July and December in collaboration with local firefighting teams and emergency centers. In addition, the in-house disaster response team trains every two months in order to ensure a prompt response to all possible disaster scenarios. With regard to occupational safety and health, the company holds monthly health and safety meetings and measures noise, chemical concentrations, and particulate concentrations. In this way it maintains a positive work environment and supports the maintenance of employee health.



Disaster response drill

Third-Party Review The Japan Chemical Industry Association (JCIA) issued the "Independent Verification – Opinions" for our CSR Report 2015 (Japanese edition) in Japanese as below. It expresses verification on rationality and accuracy, and informed opinions of chemical industry specialists on the contents related to our RC activities and the characteristics of our report. 「CSR報告書 2015」 第三者検証 意見書 レスポンシブルーケン 2015年6月8日 株式会社 日本触媒 代表取締役社長 池田 全徳 殿 一般社团法人 日本化学工業協会 レスポンシブル・ケア検証センター長 局潮純沉 ■検証の目的 本検証は、株式会社日本触媒が作成した「CSR報告書 2015」(以後、報告書と略す)を対象として、下記の 事項について、化学業界の専門家としての意見を表明することを目的としています。 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性 2) 数値以外の記載情報の正確性 3) レスポンシブル・ケア活動の評価 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集計方法の合理性、及び数値以外の記載情報の 正確性について誤査を行いました。 調査は、報告書の内容について各業務責任者及び報告書作成責任者に 質問すること、及びそれぞれの責任者より資料提示と説明を受けることにより行いました。 ・維路製造所において、本社に報告する数値の算出方法の合理性、数値の正確性及び数値以外の記載情報の正 確性の調査を行いました。この調査は、各業務責任者及び報告書作成責任者への質問とその資料提示及び説 明を受けること、並びに証拠物件と照合することにより行いました。 ・数値及び記載情報の調査についてはサンプリング手法を適用しました。 ■ 武 現 1) バフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性について ・数値の算出・集計方法は、本社、姫路製造所において、合理的な方法を採用しています。 ・調査した範囲において、数値は正確に算出・集計されています。 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。原案段階では表現の適切性、文章の分かり易さ について若干の指摘をしましたが、現報告書では指摘事項は修正されています。 3) レスポンシブル・ケア活動の評価について ・「安全の誓いの日」を迎えるに当たって、社長が、9月16日~10月15日の間を「保安月間」と定め、全社全職 場に安全想該会の開催を指示していたこと、9月29日には「安全の誓」の碑の前で「安全の誓い式」を開催し、 全従業員が改めて事故を風化させることなく保安力を向上していくことを宣言したことを高く評価します。 ・本年度より国内グループ会社の環境安全監査を開始し、また海外のグループ会社の2社とRC活動について 意見交換を行うなどグループ会社のRC活動推進を積極的に支援していることを評価します。 ・日本触媒の主力工場である姫路製造所では、安全優先の意識撤底に係る行動宣言、職場の安全目標設定、 ヒヤリハット・危険予知活動、HAZOPを軸としたリスクアセスメント、地震・津波対応、各種防災訓練そして保 安力の向上への取り組み等々、保安防災活動に幅広く取り組まれていることを評価します。 ・姫路設造所では2014年度のRC活動において、設備トラブルの影響等があり目標未達の項目もありました が、定量的な目標を設定LPDCAを確実に溜した活動を実践していますので、今後も着実な成果が期待され ます。 4)報告書の特徴について ・特集記事として、社会貢献活動の「日本触媒の森」づくりを紹介するなど企業の社会的責任にかかわる情 報を充実させ、本年から報告書名を「環境・社会報告書」から「CSR報告書」へと変更されています。 RLE



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