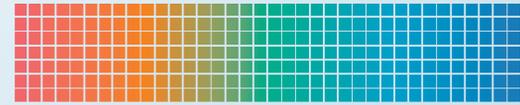
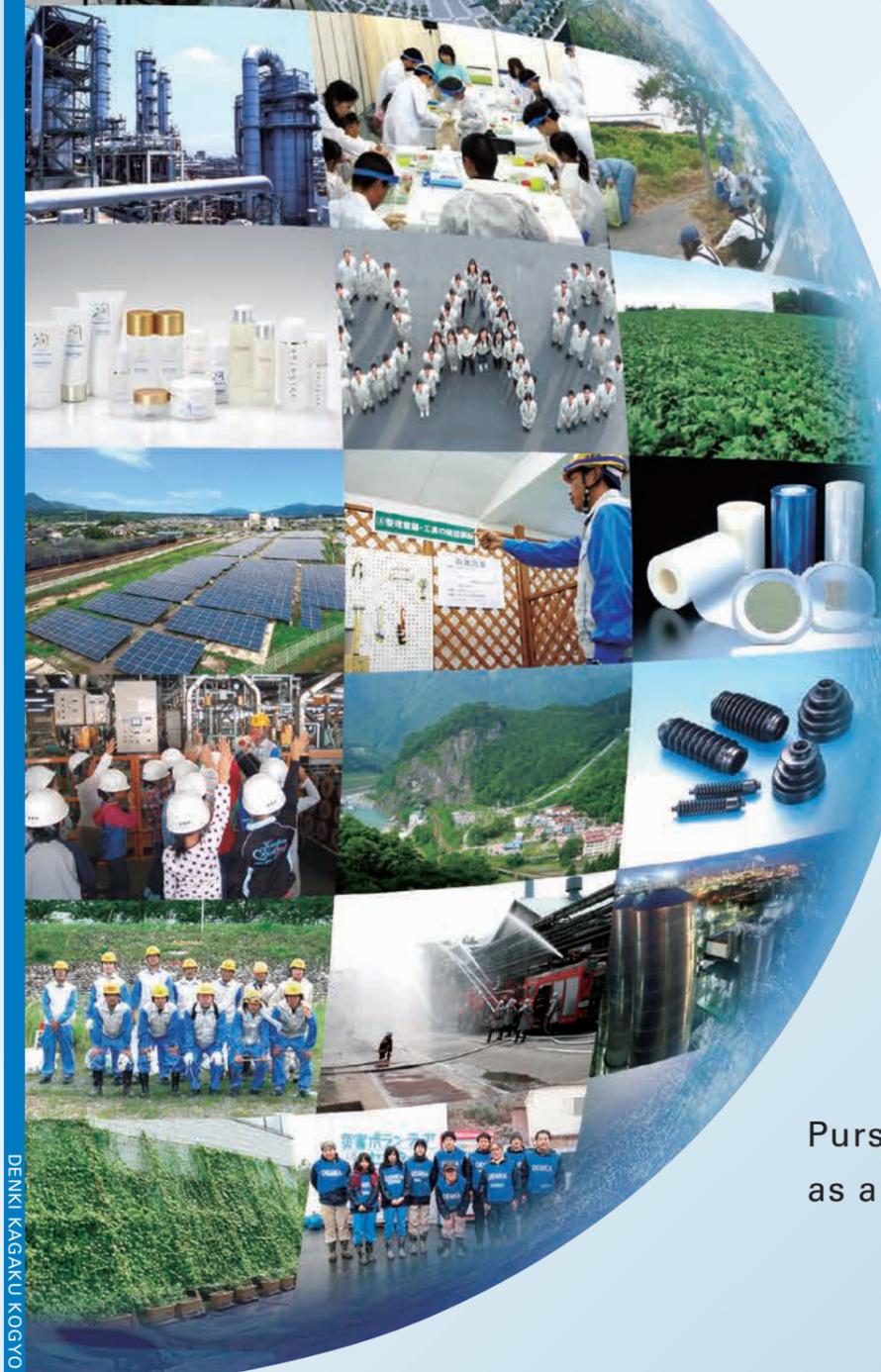


DENKA GROUP
CSR REPORT
2014



Pursuing Lasting Trust
as an Outstanding Manufacturer

DENKA GROUP CSR REPORT 2014



DENKI KAGAKU KOGYO KABUSHIKI KAISHA

DENKA
DENKI KAGAKU KOGYO KABUSHIKI KAISHA
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Editorial Policy

In line with its CSR Vision "pursuing lasting trust as an outstanding manufacturer," the DENKA Group is striving to practice a management approach that brings its business and CSR activities together. To better realize this CSR Vision, we established the DENKA100 corporate philosophy, undertaking a Companywide initiative that encompasses six pillars, namely: "Expansion of business operations"; "Human resource development"; "R&D Promotion"; "Good Company Program (GCP)"; "Promote further innovation"; and "CSR: Corporate Social Responsibility." The initiative looks to achieve sustainable growth beyond fiscal 2015—the year we will mark the centennial of our founding.

With this in mind, the *DENKA Group CSR Report 2014* begins by reporting the results of our investigations into two major accidents occurred during fiscal 2013, namely, a heat blast accident at the Omi Plant and a fire in the Chiba Plant's styrene monomer production facility during its demolition. On pages 6 and 7, we discuss the cause of these accidents as well as the status of measures implemented to prevent recurrence.

The structure of the ensuing articles on pages 8 through 23 is designed to outline the status of the DENKA100 initiative in light of the six aforementioned pillars. In particular, on pages 12 and 13 we highlight our DENKA100 growth strategies, which have been reestablished in fiscal 2013, providing detailed information on how we promoted each strategy during the fiscal year.

In addition, with a view to stepping up our CSR activities, we focused on improving the process for preparing our CSR report while changing the scope and content of reporting. Details follow:

- The scope of reporting on safety and environmental initiatives, which had been confined to seven domestic business sites, has been expanded to encompass all Group members, including overseas bases and domestic production affiliates.
- Detailed explanations of business strategies are provided by the heads of the four business divisions (see the section entitled "Our Business Operations"), with particular emphasis on initiatives taken or planned to promote the DENKA100 new growth strategies as well as examples of DENKA products aimed at helping to resolve social issues.
- The process of preparing this report was revised. Specifically, in the editing process of this report we shared information within the company on the latest external guidelines and analyses of CSR reporting trends, thus ensuring that everyone concerned is aware of changes in the external environment, with an eye to upgrading our activities over medium to long term.

Coverage

This report generally covers fiscal 2013 (April 1, 2013, through March 31, 2014). It also includes information on subsequent initiatives undertaken in fiscal 2014 while presenting numerical targets for and performance statistics from the past several fiscal years.

Scope

Unless stated otherwise, the data in this report is based on information on the business sites of DENKA and key affiliates listed below.

- **Business sites:** Six production sites (Omi, Omuta, Chiba, Shibukawa, Ofuna and Iseaki) and four R&D institutes (the Advanced Technologies Research Institute, the Life Innovation Research Institute and the Infrastructure & Solutions Development Research Institute at the DENKA Innovation Center, as well as the Polymer & Processing Technology Institute)
- **Key affiliates:** Denal Silane Co., Ltd. and Denak Co., Ltd. at the Omi Plant, as well as TOYO STYRENE Co., Ltd., and Taiyo Vinyl Corporation at the Chiba Plant

Guidelines

- The G3.1 Sustainability Reporting Guidelines of the Global Reporting Initiative
- The Environmental Reporting Guidelines 2012 of Japan's Ministry of the Environment

Website-Only Contents

For CSR reporting, DENKA utilizes both the printed booklets and online references that are prepared in PDF format and posted on its website. While the former presents the latest examples of DENKA's initiatives aimed at achieving sustainable growth, the latter covers information on its long-standing CSR activities.

In addition, the Global Reporting Initiative (GRI) Content Index is attached to the web-based references to the *DENKA Group CSR Report 2014*.

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Corporate Profile (as of March 31, 2014)

Name	DENKI KAGAKU KOGYO KABUSHIKI KAISHA	Paid-in Capital	¥ 36,998 million
Established	May 1, 1915	Employees	5,249 (consolidated); 2,873 (non-consolidated)
Business Sites	<ul style="list-style-type: none"> ■ Head Office Nihonbashi Mitsui Tower, 1-1, Nihonbashi-Muromachi 2-chome, Chuo-ku, Tokyo 103-8338, Japan Tel: +81-3-5290-5055 ■ Branches Osaka, Nagoya, Fukuoka, Niigata, Hokuriku (Toyama), Sapporo, Tohoku (Sendai) ■ Sales Offices Nagano, Gunma (Takasaki), Hiroshima, Shikoku (Takamatsu), Akita ■ Research Institutes DENKA Innovation Center [the Advanced Technologies Research Institute, the Life Innovation Research Institute, the Infrastructure & Solutions Development Research Institute] (Machida, Tokyo) Polymer & Processing Technology Institute (Ichihara, Chiba) 	<ul style="list-style-type: none"> ■ Plants Omi (Itoigawa, Niigata), Omuta, Chiba (Ichihara, Chiba and Bibai, Hokkaido), Shibukawa, Ofuna (Kamakura, Kanagawa), Iseaki (Iseaki and Ota, Gunma) ■ Overseas Subsidiaries & Offices New York, California, Düsseldorf, Singapore, Shanghai, Beijing, Guangzhou, Suzhou, Hong Kong, Tianjin, Taiwan, Seoul ■ Major Affiliates DENKA Polymer Co., Ltd. (Koto-ku, Tokyo) DENKA SEIKEN Co., Ltd. (Chuo-ku, Tokyo) CRK Corporation (Takasaki, Gunma) Hinode Kagaku Kogyo (Maizuru, Kyoto) DENKA Azumin Co., Ltd. (Hanamaki, Iwate) 	





We Will Strive to Become a Truly Competitive Manufacturer Deserving the Trust of Society.

S. Yoshitatsu

President & CEO
DENKI KAGAKU KOGYO KABUSHIKI KAISHA

1 Report on Major Accidents in Fiscal 2013 —Renewing Our Commitment to Safety

First of all, we would like to extend our sincere apologies for the victim of the accident that occurred in June 2013 at the Omi Plant's calcium carbide production facility, in which a heat blast blew out from an electrical furnace, resulting in the death of one person. We also express our condolences to the bereaved family. In addition, in July 2013, a fire broke out at the Chiba Plant during the demolition of a non-operational facility. We would extend our deepest apologies to those living in the areas near the plants as well as relevant authorities for any trouble and anxiety caused by these accidents.

Safety and disaster prevention must be integral part of corporate activities and are the foremost management issues throughout DENKA's business operations. Deeply reflecting on these major accidents, we will thoroughly investigate to see what was lacking in our operations to prevent similar events from occurring. We will strive to regain the trust of society, with everyone working for the Group rallying their full strengths to facilitate a safety-oriented corporate culture.

In the next section, we present outlines of the accidents and measures implemented to prevent reoccurrence. Moreover, examples of DENKA's Companywide safety initiatives are featured on the section entitled "Our Initiatives to Maintain Safe Operations."

2 New Growth Strategies —Providing Solutions to Social Issues

DENKA has been operating as a chemical company for nearly a century. Beginning with the manufacture of chemicals, such as calcium carbide, the scope of our operations has significantly expanded to include the production of electronic materials and pharmaceuticals. Throughout our history, we have augmented our manufacturing technology in line with an unchanging commitment to helping to resolve challenges that confront society.

Today's society is beset by a number of challenges, including a pressing need to preserve the global environment, the depletion of resources and rising energy demand. Moreover, there is growing need for safer living environments as well as solutions for disease prevention and health promotion. With these issues in mind, in April 2013 we formulated new growth strategies for the DENKA100 Companywide initiative and reallocated our management resources accordingly, positioning these challenges as opportunities to create new growth drivers.

Specifically, our new growth strategies consist of: "Create the most optimal production system"; "Scrutinize every cost element"; and "Focus management resources on new growth drivers and develop next-generation products." These strategies are considered critical management issues as we aim to realize business growth through the provision of solutions for challenges confronting society. Making full use of our technological strengths in chemical fields, which range from inorganic to organic materials, we will strive to help resolve social issues in a way only the DENKA Group is capable of.

3 Initiatives to Ensure Sustainability

As part of the new growth strategies, we are striving to "Create the most optimal production system" and "Scrutinize every cost element" to ensure the sustainable development of our corporate activities.

To create the most optimal production system, in July 2013 we established a new plant in Singapore to produce TOYOKALON synthetic fiber for wigs and hairpieces. And, in April 2014, we went on to launch multiple overseas subsidiaries to expand our operations in the special cement additive business targeting the Chinese and Southeast Asian markets. Moreover, plans call for establishing a new facility in China to produce food packaging and electronic packaging materials. We will thereby accelerate the development of a production network optimized to accommodate needs of growth markets.

Also, we are scrutinizing every cost element, to this end reviewing our production technologies, energy and raw material inputs and logistics operations, irrespective of past practices.

At the same time, we are promoting the use of clean energy. As cement and calcium carbide production are energy intensive operations, we recognize that ensuring stable energy supply and high production efficiency is a precondition for sustainable business activities. Currently, approximately 60% of DENKA's total electricity use is provided by its in-house power generation facilities, with hydroelectric power generation representing roughly half of this figure. Accordingly, we are reinforcing our network of hydroelectric power generation facilities, augmenting the capacity of existing facilities and preparing for the construction of a new hydroelectric power plant. Moreover, we are developing mega solar power generation facilities, drawing on our know-how in the power generation business. In these ways, we will pursue the development of a low-carbon society as well as sustainable business operations.

4 Developing Next-Generation Products

As a manufacturer, we recognize "Focus management resources on new growth drivers and develop next-generation products" as being crucial to achieving continued business growth. In line with this recognition, in April 2014 we completed the DENKA Innovation Center main building in Machida, Tokyo. This building comprises three new R&D facilities, allowing us to consolidate our Groupwide management resources. Moreover, efforts are now under way to accelerate our R&D activities through proactive collaboration with external corporations, research organizations and public institutions aimed at pursuing open innovation. One such initiative resulted in the establishment of the NIMS-DENKA Center of Excellence for Next Generation Materials in June 2013. Although our initiatives may not yield results overnight, we are determined to develop an even stronger R&D platform to realize innovations that will, in turn, help to resolve social issues.

5 Nurturing Human Resources Capable of Bolstering Growth

We believe our human resources are key to achieving corporate growth. Therefore, we have adopted systematic employee training programs while stepping up efforts to nurture competitive human resources under the initiative of the Human Resource Development Center. Specifically, we enhanced the

content of an overseas on-the-job training program for younger employees to get them used to working in diverse business settings and multicultural environments. Simultaneously, we have introduced long-term training in Japan for manager candidates who have been recruited overseas. Moreover, each business site is striving to ensure workplace safety and enhance employees' technological skills through the provision of the DENKA Techno School educational programs. Meanwhile, each department is implementing its own initiatives to enhance occupational safety by raising employee awareness and to otherwise improve daily operations.

We are also promoting workforce diversity and striving to create a working environment in which employees with diverse characteristics can realize their full potential. For example, we have set numerical targets for the recruitment of female specialists. At the same time, we have abolished the practice of seniority-based promotion while proactively offering managerial positions to ambitious employees. As such, we are adopting new personnel administration practices that drive employees' ambitions and motivation to create an even more inclusive and rewording workplace.

6 Initiatives to Help Develop Local Communities

We have acquired the naming rights for the Niigata Stadium and dubbed it the DENKA BIG SWAN STADIUM in January 2014. The name of this stadium represents our intention to revitalize local communities through the promotion of sports activities. This change is also intended to increase the DENKA Group's name recognition among community members.

In addition, each business site is regularly holding various community events for people living in their neighborhood. We are also participating in such events as Summer Holiday Chemical Experiment Show for Children to facilitate interest in chemistry among children while dispatching volunteer employees to provide ongoing assistance with the reconstruction of areas affected by the Great East Japan Earthquake. In these ways, we are striving to deepen our ties with local communities and make greater social contributions by revitalizing local economies.

7 Pursuing "Lasting Trust as an Outstanding Manufacturer"

A business's ultimate goals should be more than turning a higher profit. Moreover, a legitimate thriving business cannot exist outside society. We believe that earning greater profits from our business activities and fulfilling our responsibilities as a member of society must be realized in tandem—the two are inextricably linked and together constitute indispensable conditions for our operations.

While staying true to our traditions of maintaining an earnest attitude and being sincere in our dealings, a cornerstone of DENKA's existence since its founding, we will strive to fulfill the expectations of every stakeholder and, by doing so, become a truly competitive manufacturer deserving of society's trust.

We thereby ask for your understanding of and ongoing support for our Group operations.

August 2014

Report on Major Accidents at Our Plants

Two Major Accidents at the Omi and Chiba Plants

In June 2013, a worker was struck by heat blast from an electric furnace at the Omi Plant that resulted in death. In July 2013, a fire broke out in a distillation tower during the demolition of an aged styrene monomer production facility at the Chiba Plant. Once again, we would like to extend our sincere apologies to the victim of the accident and the bereaved family. We also express our sincere apologies to those concerned for any trouble and anxiety caused by these accidents.

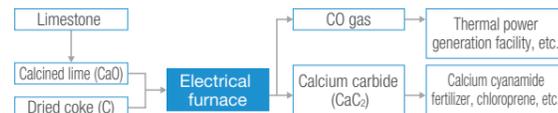
The Omi Plant: Heat Blast from an Electrical Furnace

1. Outline of the Accident and Damage Situation

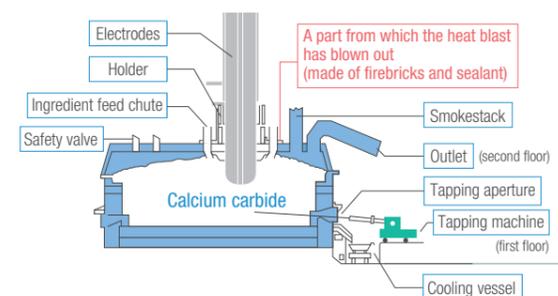
Facility in question	Electrical furnace (S-4) of a calcium carbide production facility at the Omi Plant
Date of occurrence	June 17, 2013 (Mon.), 09:31 A.M.
Damage situation	Human damage: A worker from a DENKA subcontractor suffered burns all over his body, resulting in death on August 2 due to septic shock Environmental damage: None Property damage: Slight damage to the electrical furnace
Sequence of events	Five workers from a DENKA subcontractor were undertaking instrument installation on the S-4 electrical furnace, which was in operation at the time. A heat blast suddenly blew through firebricks on the top of the furnace (the sealant was broken due to excess pressure), striking one of the five workers.
June 17	09:00 A.M.: The five workers begin working near the entrance to the S-4 furnace operation room on the second floor. At the same time, another group of workers start transferring calcium carbide from inside the furnace to a cooling vessel using a tapping machine. 09:25 A.M.: The first half of tapping work is completed. 09:31 A.M.: A blast of heat suddenly blows out from the upper portion of the furnace and strikes a worker. Immediately, the worker is given emergency burn treatment using a water spray installed near the furnace. 09:45 A.M.: The ambulance arrives. The victim is taken to the Itoigawa Sogo Hospital and later transferred to Niigata Prefectural Central Hospital via helicopter.

Flow of Calcium Carbide Production

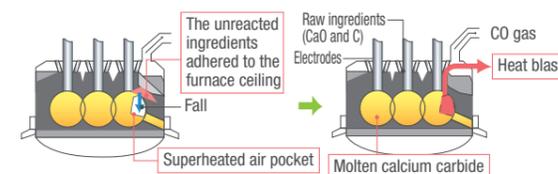
Calcium carbide (CaC₂) is produced through the reaction of calcined lime and dried coke at a temperature of approximately 2,000°C.



Sectional View of Electrical Furnace



The Mechanics behind the Heat Blast



2. Accident Investigation Structure

DENKA established a special committee chaired by the president and a special team led by the executive officer in charge of the Technology Division to investigate the causes of the accident and implement countermeasures. With representatives from the Omuta Plant's calcium carbide production section participating, the committee has met five times in the period from June 29 to August 6, 2013, directing the investigation and the implementation of countermeasures.

3. Cause of the Accident

Direct Cause:

A large mass of unreacted ingredients adhering to an upper sector of the inside walls of the furnace fell at once, causing a sudden blast of heat blast to be released.

Grounds for Determining the Cause:

There were no indications of explosion. Also, an inspection carried out immediately after the incident found that a considerable amount of limestone had been fed into the furnace from the ingredient tanks.

Causes Attributable to Facility Characteristics:

(1) Inadequate Pressure Resistance of the Furnace's Firebrick Ceiling

Due to the fall of a massive amount of material at once and an uncontrolled ingredient flow into the furnace, which dislodged a feed chute, the pressure resistance of the furnace ceiling was weakened, resulting in the release of the heat blast through a gap between firebricks that had been filled with sealant.

(2) Insufficient Safeguards Installed around the Electrical Furnace

The victim had to perform his duty in a location where no safeguards (e.g. protection barriers) were installed.

Causes Attributable to Management:

(1) Insufficient Workflow Management in Safety Zones

Although the victim was working in an area classified as a low-risk zone, safety measures anticipating such irregular work were lacking.

4. Countermeasures Implemented to Prevent Recurrence

(1) Facility Improvement

(i) Systems to Predict and Prevent a Massive Fall of Material
Installed an interlocking system that suspends furnace operation when a rise in pressure is identified; incorporated a device that detects massive inflows of ingredients to ensure the more effective prediction of the fall of material inside the furnace.

(ii) Systems to Ensure Release of Overpressure
Optimized the allocation of safety valves (installed pressure discharge valves and hydraulic backpressure valves in a smokestack and outlets, respectively); reinforced the furnace's firebrick ceiling to improve pressure resistance.

(iii) Safeguards for Workers
Installed additional safeguards, such as protection barriers.

(2) Revisions in Facility Management Rules

Restricted entry into the zone around the electrical furnace during operation; reclassified working zones and off-limit zones; formulated new safety standards based on such classification; updated standard operating procedures and rules regarding mandatory protective garments for workers; adopted a checklist to ensure the safety of subcontractors; and provided workers with training on how to operate electrical furnaces safely.

5. Future Initiatives

Plans call for implementing a third-party safety evaluation by external specialists.

The Chiba Plant: A Fire Broke Out in a Distillation Tower

1. Outline of the Accident and Damage Situation

Facility in question	The AF-202 distillation tower of the Chiba Plant's CM-3 styrene monomer production facility, which was being demolished
Date of occurrence	July 20, 2013 (Sat.) 09:35 A.M.
Date of extinction	July 21, 2013 (Sun.) 09:13 A.M.
Damage situation	Human damage: None Environmental damage: None Property damage: None (only facility being demolished was affected by the fire)
Sequence of events	In April 2013, the Chiba Plant began demolishing the CM-3 styrene monomer production facility, which had ceased operations in April 2012. On July 20, 2013, a fire broke out when a blowtorch was used to create openings in the side of an approximately 60-meter-tall distillation tower to allow the installation of scaffolds. The fire was extinguished by the next day. In addition, on August 1, 2013, the work was undertaken to topple the tower over sideways in a safe manner, as the buckling in the upper portion of the tower could cause a tilt of said section.
July 20	09:35 A.M.: A red glow indicating fire is observed inside the distillation tower in addition to smoke spewing from its top; staff begin attempting to extinguish the fire by water discharge. 14:10 P.M.: Deformation and buckling of the tower segment around 40 meters above ground level are observed. Consequently, the top of the tower is seen to incline roughly 20 degrees.
July 21	09:13 A.M.: The municipality's fire department declares the fire extinguished. 13:36 P.M.: Water discharge ceases.
August 1	13:15 P.M.: The distillation tower is deliberately toppled over sideways.

Styrene Monomer Production Process

The process consists of the following two stages:

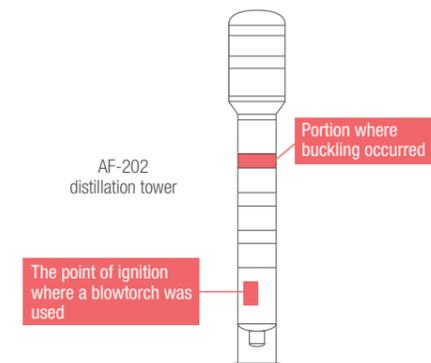
- EB process: ethylene + benzene → ethylbenzene (EB)
- SM process: ethylbenzene (EB) → dehydrogenation → refining → styrene monomer (SM)

Facility in Question

The distillation tower used in the SM process (extracting SM from EB)



EB: Ethylbenzene
SM: Styrene monomer



2. Accident Investigation Structure

DENKA established headquarters to handle the fire accident with the president serving as the head. The headquarters held nine meetings to address the repercussions of the accident, investigate the causes and formulate measures to prevent recurrence. In October 2013, the headquarters reported the results of its investigation to the relevant authorities and members of the local community.

3. Cause of the Accident

The distillation tower in question ceased operation in April 2012, and its inside was cleaned using solvents. Since then, it had been nonoperational for a year. Before initiating demolition, staff performed both a visual check to ensure that no combustible material was present and used a gas detector to confirm the absence of flammable gas. Thus, it was considered safe to perform high-temperature operations and the blowtorch was used. Despite the precautions, a fire broke out inside the distillation tower due to the open flame of a blowtorch. The causes of the fire are as follows.

Direct Causes:

- While the facility was in operation, a small amount of resinous material had been generated from styrene monomer and had adhered to the surface of the stainless steel sheets packing the distillation tower. This material ignited when a worker used equipment with an open flame.
- Since piping and other components had been removed from the tower before the work in question began, the structure had become more exposed to the outside air, with greater natural ventilation. Moreover, the exterior walls of the tower were made of materials with good heat-retention properties, facilitating the oxidization of the stainless steel sheets inside the structure.

Causes Attributable to Work Management:

- The status of the structure had not been checked thoroughly enough, as the presence of the resinous material generated during the facility operations adhering to the stainless steel sheets packing the tower was not anticipated.
- Preliminary discussions on demolition methods were insufficient.

Methods to Verify the Causes:

- A sample of the stainless steel sheets packed inside the tower was analyzed after the accident, revealing the presence of resinous material derived from styrene monomer on their surface.
- Small-scale fire experiments and other testing using a model of the distillation tower showed that resin adhered to stainless steel sheets can be ignited when heat is not smoothly dispersed from the structure as work is performed.
- The changes in the thermal status of the tower's metallic components were simulated to assess the maximum temperature of the inside surfaces of the structure during the work. The temperature was estimated to have reached more than 1,000°C, the temperature at which stainless steel materials are oxidized.

4. Countermeasures Implemented to Prevent Recurrence

The following rules were established to prevent similar accidents:

- When high-temperature work has to be carried out to modify facilities consisting of complex internal structures or thin metallic sheets components, specially-designed safety countermeasures must be implemented to ensure absolute safety. For example, such sheets must be removed beforehand, or a concrete step to disperse heat should be undertaken (e.g. spraying coolant water while work is being performed).
- Sections in charge of facility operations, facility management and safety must undertake sufficient preliminary evaluations to ensure the safety of work undertaken to modify facilities, including demolition. Moreover, critical information must be shared between these sections and the subcontractors participating in the work.

Reflecting deeply on these major accidents, we will strive to enhance the overall ability of our organization to predict danger in operations. In addition to measures to prevent recurrence, we will work to build a corporate culture in which everyone places a priority on safety. For more information on our Companywide safety initiatives, please also see pages 21, 26 and 27.

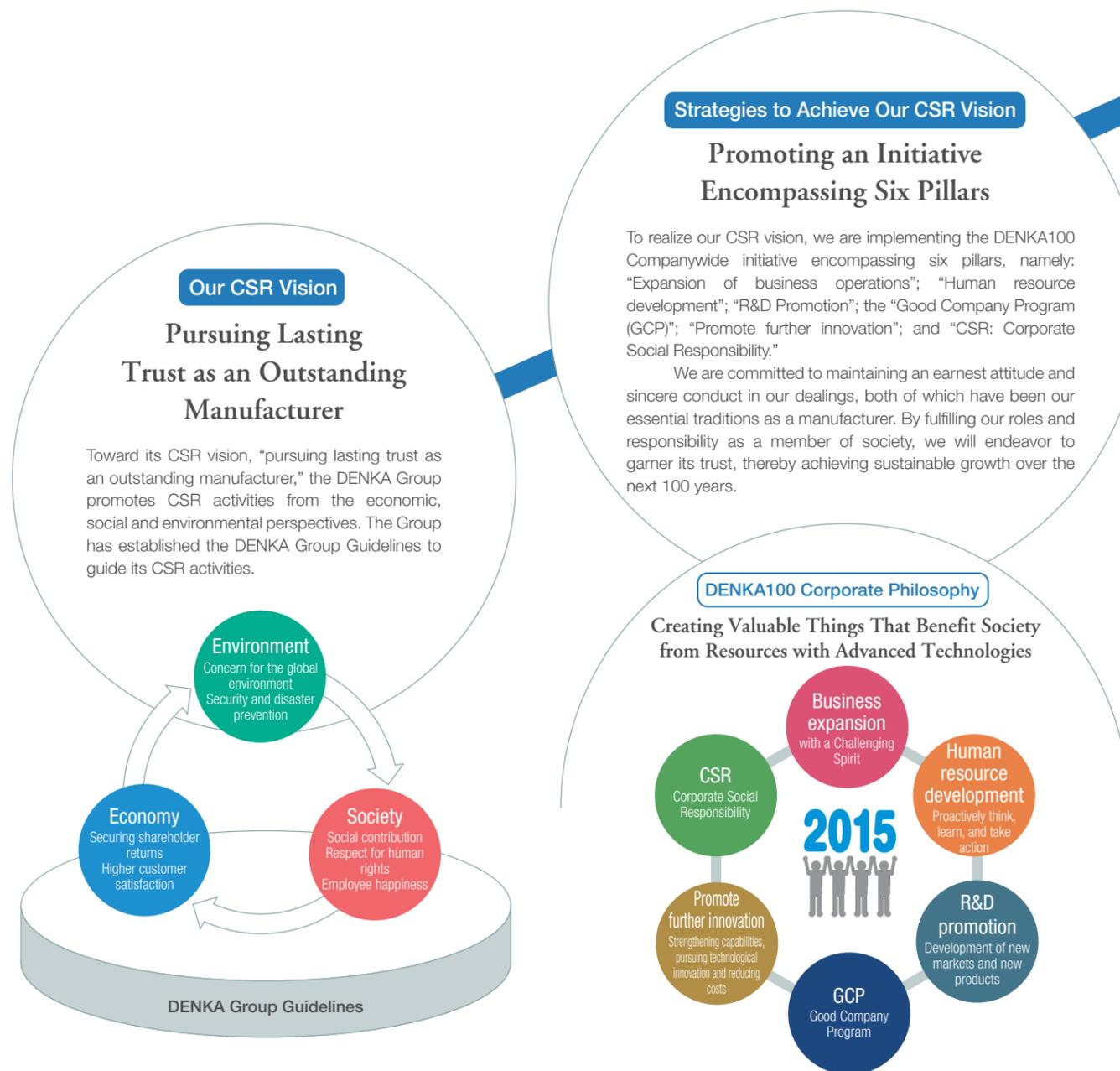
Focusing Our Management Resources on the DENKA100 Initiative, We Will Strive to Help to Resolve Challenges Confronting Society.

Since its founding in 1915, DENKA has sought to contribute to society's development as a manufacturer in the chemical industry while always striving to be a company that garners people's trust. In 1995, we began implementing responsible care (RC) activities, adopting a CSR initiative promoted across the entire chemical industry for the voluntary management of chemical substances. Since then, we have taken a systematic approach to advancing environmental conservation, product safety, security and disaster prevention, and communication with local communities.

In 2007, we launched DENKA100, a key management initiative that guides Companywide efforts to fulfill our social responsibility in six areas, setting goals for fiscal 2015—the year we will mark the centennial of our founding.

DENKA100

Toward greater corporate value for the next 100 years



DENKA100 New Growth Strategies
Contributing to the Sustainable Development of Society While Enhancing Corporate Value

Looking toward the next 100 years, the DENKA Group is striving to become a manufacturer that deserves people's trust. Establishing new growth strategies for the DENKA100 management plan, we have positioned our businesses aimed at helping to resolve social issues as a growth driver.

Reforms in Corporate Culture and Reorganization

Reforming our corporate culture and reorganizing business structures to facilitate the aggressive, speed-oriented business approach needed to become a successful global company

Securing Sustainable Growth for the Next 100 Years

Working to reduce the impact of business activities on the environment while striving to become a company that garners the lasting trust of employees and local communities

New Growth Strategies

1. Create the most optimal production system

Accelerating a shift to local production to ensure timely product supply to growing overseas markets while dedicating domestic plants to the production of specialty and high-performance products

2. Scrutinize every cost element

Reviewing every cost element through such steps as the streamlining of production processes, yield improvement and the reduction of raw material costs and maintenance expenses

3. Focus management resources on new growth drivers and develop next-generation products

- Developing solution businesses in such growth fields as the environment, energy, infrastructure and healthcare
- Reinforcing open innovation and utilizing the DENKA Innovation Center

Growth Driver

DENKA is committed to providing solutions for issues confronting society through our business activities.

Examples of What DENKA Can Do to Resolve Social Issues

Environment

- Addressing the global warming issue
- Promoting the effective utilization of resources and developing a recycling-oriented society

Energy

- Saving energy
- Securing a stable supply of energy and promoting the use of clean energy

Infrastructure

- Countering the aging of infrastructures
- Infrastructure development in emerging countries

Healthcare

- Preventing infectious and lifestyle-related diseases
- Securing food safety

Pursuing Lasting Trust as an Outstanding Manufacturer, We Promote CSR Activities from the Economic, Social and Environmental Perspectives.

In 2015, DENKA will celebrate the centennial of its founding. Having started out with the manufacture of calcium cyanamide fertilizer, DENKA has been developing and applying unique production technologies as it endeavored to help resolve social issues that varied with the times. Looking toward the next 100 years, we have formulated new DENKA100 growth strategies and are focusing our efforts in solution businesses in the fields of the environment, energy, infrastructure and healthcare. Moreover, we are partnering with various external organizations to facilitate open innovation. In doing so, we have remained loyal to the root of our CSR activities, with an unwavering commitment to contributing to society through manufacturing in a way that only DENKA is capable of.

In addition, the manufacture of DENKA's chemical products consumes both natural resources and energy. Therefore, we are striving to improve the soundness and safety of entire product life cycles and to reduce environmental impact through ongoing Responsible Care (RC) activities, which we consider indispensable to gaining the trust of society.

In these ways, DENKA is promoting its CSR activities from the economic, social and environmental perspectives, thereby pursuing lasting trust as an outstanding manufacturer.



Junichi Kimura Executive Officer, General Manager of Corporate Planning Dept., CSR & Corporate Communications Dept.

CSR Promotion Structure

To promote its CSR activities, DENKA established a CSR promotion structure spearheaded by the president and consisting of the CSR & Corporate Communications Department and other specialized bodies. When major issues arise, specialized committees under the direct control of the president hold discussions and make decisions on the actions to be taken. The CSR & Corporate Communications Department has been systematically developing an in-house structure to promote CSR, facilitating the understanding of all Group employees to ensure their wholehearted engagement in CSR activities and publishing these activities' results in the CSR report.



Topics In-House CSR Educational Programs

Every year, a special educational program themed on CSR activities is implemented as a part of employee training sessions. With the CSR & Corporate Communications Department designing its content, this program is mandatory for newly recruited specialists while welcoming volunteer participants from Group members.

The program started with an explanation of the DENKA Group Guidelines, which contain the ten precepts that govern our CSR activities, and then went on to explain, with actual examples, our "preventive CSR activities" in such areas as compliance, which is indispensable to maintaining the trust of society, and "proactive CSR activities" aimed at achieving greater corporate value by fulfilling stakeholders' expectations through such initiatives as creating shared values (CSV). Information was also provided on our volunteer activities in support of the reconstruction of Minami Sanriku-cho and other areas affected by the Great East Japan Earthquake, the Summer Holiday Chemical Experiment Show for Children in which DENKA staff takes part, and other social contribution activities undertaken by the Company.



A training session for newly recruited specialists (April 16, 2013)

CSR Promotion Challenges, Targets and Performance

Stakeholders	Challenges	Fiscal 2013				Major Challenges and Goals in Fiscal 2014 and Beyond	
		Targets	Results	Pages	Results		
Corporate Governance	<ul style="list-style-type: none"> Promote compliance education Raise CSR awareness and promote CSR activities 	<ul style="list-style-type: none"> Legal affair education Nurture a CSR mindset 	<ul style="list-style-type: none"> Gave training sessions on legal affairs at each business site Provided new recruits and other Group employees with an educational program themed on CSR activities 	24 to 25	B	<ul style="list-style-type: none"> Promote compliance education Develop more robust in-house CSR promotion structure and nurture a CSR mindset 	
All Stakeholder Categories	Safety and Disaster Prevention	<ul style="list-style-type: none"> Ensure facility security and disaster prevention while building and maintaining relationships of trust with local communities Maintain occupational safety and health while creating a vibrant and comfortable working environment 	<ul style="list-style-type: none"> Secure occupational safety and health (elimination of occupational accidents) Ensure adherence to basic safety rules by on-site workers, facilitating worksite communication, creating a vibrant and lively workplace and enhancing employee education Apply a security evaluation system 	<ul style="list-style-type: none"> Major accidents occurred (heat blast from the Omi Plant's electric furnace and a fire at the Chiba Plant during the demolition of CM-3 facility) Thoroughly inspected high-risk facilities, carried out structural measures to improve their safety and facilitated communication with subcontractors Total number of occupational accidents decreased (thanks to robust worksite communications) Applied a security capability evaluation system at core plants 	6 to 7, 26 to 27	D Major accidents occurred	<ul style="list-style-type: none"> Eliminate occupational accidents by facilitating worksite communication, creating a vibrant and lively workplace and involving all staff in pursuing safety initiatives Horizontally disseminate the use of a security capability evaluation system and carry out structural measures to improve the safety of high-risk facilities
	The Environment	<ul style="list-style-type: none"> Prevention of global warming (CO₂ emissions reduction), curbing chemical substance emissions, waste reduction, technological innovation for energy conservation 	<ul style="list-style-type: none"> Implement the Fifth Medium-Term Environmental Plan (systematically reduce CO₂ emissions, PRTR substances and other environmental load substances) Promote RC activities 	<ul style="list-style-type: none"> Launched mega solar power generation facilities (the Shibukawa and Iseaki plants) Decided on the construction of the new hydroelectric power generation plant for the Omi Plant Implemented the Fifth Medium-Term Environmental Plan <ol style="list-style-type: none"> Achieved the target for energy consumption intensity: 0.90 compared with fiscal 1990 level (target: 0.93) Thanks to the success of each plant's energy-saving activities and the stable output of in-house hydroelectric power generation facilities Achieved the target for emissions of PRTR substances: 90t (target: 95t) A 13% year-on-year decrease due to lower production volume and the use of aqueous solvents Missed the target for the volume of final waste disposal: 210t (target: 177t) Due to the replacement of filters and disposal of flexible containers 	28 to 31	C Missed a part of targets	<ul style="list-style-type: none"> Implement the Fifth Medium-Term Environmental Plan (systematically reduce CO₂ emissions, PRTR substances and other environmental load substances) Promote RC activities and reinforce Groupwide environmental management encompassing affiliates and overseas subsidiaries
Employees	<ul style="list-style-type: none"> Inclusive and rewarding workplaces 	<ul style="list-style-type: none"> Step up health promotion initiatives, including a program to address mental health problems Implement initiatives under the Action Plan for General Business Operators (ensure that each employee takes at least 12 annual paid leave, streamline operations and reduce overtime work) 	<ul style="list-style-type: none"> Implemented the Mental Health Promotion Plan Average number of annual paid leave utilized: 9.2 days Average annual total of overtime hours: 91 hours (84 hours and 92 in fiscal 2011 and 2012, respectively) 	36 to 37	C Missed targets	<ul style="list-style-type: none"> Reduce total working hours and facilitate the use of annual paid leave (at least 12 days/fiscal 2016) Strengthen countermeasures against mental health problems while pursuing the implementation of the Mental Health Promotion Plan 	
							Customers and Suppliers
Society	<ul style="list-style-type: none"> Initiatives as a good corporate citizen and enhanced communication with local communities 	<ul style="list-style-type: none"> Undertake comprehensive reviews of the status of social contribution activities being implemented across the Group Continue volunteer activities to support disaster-stricken areas Reinforce communication with local communities through experimental science classes 	<ul style="list-style-type: none"> Acquired the naming rights for Niigata Stadium (DENKA BIG SWAN STADIUM) and supported the ALBIREX NIIGATA as part of our drive to revitalize local communities Accepted and recycled waterworks sludge and industrial waste from Niigata City and other municipal bodies for use in cement production Dispatched employee volunteers to Minami Sanriku-cho through the Disaster Area Volunteer Support Program Participated in the Summer Holiday Chemical Experiment Show for Children and hosted experimental science classes Assisted local students with their pursuit of higher education through DENKA Scholarship System Contributed to social welfare through music events (the Fureai Trio) Undertook comprehensive reviews of the status of social contribution activities being implemented by each business site 	32 to 33, 38	A	<ul style="list-style-type: none"> Help revitalize local communities by utilizing DENKA BIG SWAN STADIUM Undertake comprehensive reviews of the status of local community and social contribution activities being implemented by overseas subsidiaries Continuously implement volunteer activities to support disaster-stricken areas Reinforce educational assistance programs and communication with local communities through experimental science classes 	
							Governmental/External Institutions
Shareholders and Investors	<ul style="list-style-type: none"> Secure returns to shareholders through stable business performance Establishment of relationships of trust through information exchanges 	<ul style="list-style-type: none"> Enhance CSR-related information disclosure and ensure its reliability Execute the business plan 	<ul style="list-style-type: none"> Promoted new growth strategies Enhanced the content of the CSR report and the website while seeking a third-party opinion to secure its reliability 	35	A	<ul style="list-style-type: none"> Enhance CSR-related information disclosure and ensuring its reliability Work toward achieving the goals set forth in the business plan (final year set at fiscal 2017) 	

A: Achieved significant results B: Observed some results C: No results were observed D: The level of activity deteriorated

Actively Promoting Initiatives under New Growth Strategies in Line with the DENKA100 Management Plan

Fiscal 2013 Overview

In fiscal 2013, ended March 31, 2014, the Japanese economy was supported by overall growth in domestic demand, reflecting firm personal consumption and public-sector investment in addition to a last-minute surge in demand that emerged in the second half of the fiscal year in anticipation of the consumption tax hike. On the other hand, exports were sluggish due to a slowdown of growth in the Chinese and other emerging economies. Because of that, Japan's overall economic recovery remained modest.

In the chemical industry, corporate earnings have recovered because of burgeoning domestic demand and the improving profitability of exports, despite price hikes for fuel and such raw materials as naphtha.

Given these circumstances, the DENKA Group has striven to expand its businesses and to secure profitability, working

to increase sales in Japan and overseas, revising product prices and cutting costs. As a result, consolidated net sales for fiscal 2013 rose ¥35,163 million, up 10.3% year on year, to ¥376,809 million. This was attributable to the Company's efforts to revise product prices in line with rises in fuel and raw material prices, the effect of the depreciation of the yen and an increase in the sales volume of mainstay products. On the earnings front, operating income grew ¥2,412 million, up 12.8% year on year, to ¥21,230 million, despite such negative factors as the increasing cost of downstream products, which could not be fully offset due to a delay in the enforcement of price revisions, and rising electricity rates. The operating income ratio increased 0.1 of a percentage point to 5.6%.

Our Progress on the New Growth Strategies

Under the banner of the DENKA100 initiative, the DENKA Group is promoting various initiatives in line with new growth strategies expressed as: "Create the most optimal production system"; "Scrutinize every cost element"; and "Focus management resources on new growth drivers and develop next-generation products."

Our fiscal 2013 initiatives to create the most optimal production system included the launch of a new plant in Singapore in July 2013 to produce TOYOKALON synthetic fiber for wigs and hairpieces, and the establishment of multiple subsidiaries and production sites in China and Southeast Asia to expand our special cement additive business and build a production network capable of accommodating rapidly growing demand for infrastructure development in these regions. Meanwhile, the Company decided to withdraw from the vinyl acetate monomer business, terminating the sale of related products on June 30, 2014. Moreover, the Chiba Plant has resolved to overhaul its production processes, which includes integrating ABS and specialty resin manufacturing lines. Beginning in May 2014, efforts are under way to successively rebuild plant facilities, with completion scheduled for May 2015.

To better focus management resources on new growth drivers and the development of next-generation products, we initiated the construction of a new production facility for

an ultra-pure acetylene black at the Chiba Plant, with the aim of accommodating growth in demand for the lithium ion batteries (LiBs) used in automobiles. The commencement of trial operations is scheduled for April 2015.

Furthermore, we strengthened our capital alliance with a venture enterprise specialized in the area of LiB materials. As a part of initiatives to facilitate open innovation, we established the NIMS-DENKA Center of Excellence for Next Generation Materials while signing a preliminary agreement with Yamagata University to enter a comprehensive research partnership. In April 2014, we completed the DENKA Innovation Center main building in Machida, Tokyo. The building also houses three new R&D facilities, namely, the Advanced Technologies Research Institute, the Life Innovation Research Institute, and the Infrastructure & Solutions Development Research Institute.

Among initiatives for the next 100 years was the launch of solar power generation facilities at the Shibukawa and Isesaki plants in July 2013. We also decided to construct a new hydroelectric power generation facility for the Omi Plant, with an eye to launching operations in April 2018. We will pursue the greater utilization of clean energy to fulfill our corporate social responsibility as a manufacturer.

Further details on the growth strategies undertaken by our four business divisions and in the area of R&D are featured on pages 14 to 19.

DENKA100 New Growth Strategies

New Growth Strategies

- 1 Create the most optimal production system
- 2 Scrutinize every cost element
- 3 Focus management resources on new growth drivers and develop next-generation products

Numerical Targets (fiscal 2017)

- Consolidated operating income ¥60 billion or more (doubling operating income from fiscal 2006 level)
- Operating income ratio 10% or greater
- Overseas sales to net sales ratio 50% or greater

Main Initiatives under New Growth Strategies

New Growth Strategies	Period	Products	
Create the Most Optimal Production System	Jul. 2013	TOYOKALON	Launched DENKA Advantech Pte., Ltd.'s Tuas South Plant
	Jan. 2014	Special cement additives	Entered into a capital alliance with Posco Venture Sdn. Bhd. (Malaysia) and introduced DENKA's production technologies to Posco
	Mar. 2014	Special cement additives	Initiated production at DENKA Inorganic Materials Tianjin Co., Ltd. in China
	Apr. 2014	Special cement additives	Launched DENKA Infrastructure Technologies Shanghai Co., Ltd. and DENKA Infrastructure Technologies Private Limited (Singapore) as regional headquarters controlling the Company's operations in China and Southeast Asia, respectively
	May 2014	Performance plastics	Initiated an overhaul of the Chiba Plant's ABS and specialty resin manufacturing lines (successively rebuilding plant facilities until May 2015)
	Jun. 2014	Vinyl acetate monomer	Withdrew from the business
	Dec. 2014	Functional food packaging sheets	A new production facility at Denka Advanced Materials (Suzhou) Co., Ltd. scheduled to start operation
Focus Management Resources on New Growth Drivers	2015 first half	VINI-TAPE	A new production facility at DENKA ADVANCED MATERIALS VIETNAM CO., LTD. scheduled to start operation
	Jun. 2013		Established the NIMS-DENKA Center of Excellence for Next-Generation Materials
	Sep. 2013	Acetylene black, etc.	Strengthened capital alliance with SEI Corporation, a venture company specializing in battery materials (to develop an LiB electrode material with high-conductivity as well as the LiB-related solution business)
	Oct. 2013	Influenza antigen detection test kit	Obtained approval for sales in China
	Oct. 2013		Expanded collaboration with the Graduate School of Science and Engineering at Yamagata University
	Develop Next-Generation Products	Apr. 2014	
Apr. 2015		Acetylene black	A new production facility for ultra-pure acetylene black at the Chiba Plant scheduled to be completed and start trial operations
Initiatives for the Next 100 Years		Jul. 2013	
	2018		A new hydroelectric power plant for the Omi Plant scheduled to be completed and start operations

Scrutinize Every Cost Element

As a part of the new growth strategies, we are striving to scrutinize every cost element, with the goal of achieving a ¥10 billion cost cut in total. To this end, we are thoroughly reviewing all cost elements, encompassing production processes, yield rates, raw materials, utilities, facility maintenance and upgrading as well as logistics operations, with an eye on international competition.

1 Initiatives in Logistics Operations

We are striving to reduce distribution costs while enhancing the quality of our overall logistics operations. In 2010, an automated constant temperature storage facility was installed within the Omi Plant (Niigata Prefecture). Utilizing this facility, we initiated full-scale exports of chloroprene rubber from nearby Naoetsu Port and Fushiki Toyama Port, switching from the more distant Yokohama Port, thereby reducing both transportation expenses and logistics-related CO₂ emissions. We will make greater use of ports near production sites while promoting modal shift involving a changeover to larger trucks, rolling stock and marine vessels. In these ways, we will systematically reduce distribution costs and environmental impact as we optimize our logistics operations.



The automated constant-temperature storage facility (the Omi Plant)

2 Initiatives in Engineering

At facilities, we are stepping up checkups performed simultaneously with periodic maintenance as well as improvement, putting emphasis on minimizing malfunctions. We are also training employees on equipment maintenance, such as the appropriate use of lubricants, early detection

of failure and implementation of preventive measures to avoid malfunctions. Such efforts are aimed at reducing repair costs while enhancing facility security. Moreover, we are now working to enhance training on the appropriate and effective procurement of equipment and engineering services.



Training session on facility engineering

3 Initiatives in Electric Power Generation

The manufacture of such mainstay products as calcium carbide and its derivatives requires a considerable amount of electricity. DENKA thus owns an in-house power generation network consisting mainly of hydroelectric and thermal power plants and seeks to promote the use of clean energy. The Company strives to reduce its power generation facilities' environmental impact while enhancing their efficiency, which significantly affects production costs.

Specific initiatives include the effective utilization of waste heat, installation of cogeneration facilities and augmentation of the overall output of the in-house hydroelectric power generation plants by upgrading turbine runners and increasing water intake while planning the construction of a new plant.



Inside the hydroelectric power plant

Elastomers & Performance Plastics

Employing Our Strengths in Polymer Chemistry, We Support Technological Innovation in the Fields of Automobiles, Home Appliances and Food Packaging.

This division handles products in three key categories: acetylene derivatives, including chloroprene rubber and acetylene black; styrene-based functional resins; and acetyl chemicals. Revenues from these products represent 40% of Group sales. Leveraging a broad range of techniques and experience in synthesizing, compounding and molding polymers, we are bolstering technological innovation in such manufacturing fields as automobiles, home appliances and food packaging.



The Market Environment

- A shift to overseas production in electronics, automotive and other related industries
- Rises in fuel and raw material prices further exacerbated by foreign exchange rates
- Shrinkage in domestic demand due to a graying population

Strategies

- 1 Cultivate potential demand for our flagship products while developing new applications**
 - Further enhance the product value of our chloroprene rubber, acetylene black and MS and IP resins, each of which commands a top global market share, thereby cultivating potential demand and developing new applications
 - Increase the number of production sites, including those in countries abroad
- 2 Improve business structure**
 - Withdraw from the vinyl acetate business while downsizing ABS resin production facilities
- 3 Focus management resources on growth drivers**
 - Chloroprene rubber: Reinforce operations in growing markets in China and India while developing the North American markets
 - SMM and IP resins: Expand sales in China, Europe and the United States (for use in automobiles and optical parts)
 - Ultra-pure acetylene black: Establish a new facility at the Chiba Plant and build a track record in producing cathode materials for next-generation secondary batteries
 - Performance plastic products: Step up the marketing of super-heat-resistant containers, etc.

Streamlining Our Business Structure and Developing New Markets for Our Unique Products

In charge of manufacturing DENKA's mainstay products, such as chloroprene rubber, acetylene black and styrene-based products, the Elastomers & Performance Plastics Division is striving to improve its operating structure and efficiency and thereby reinforce the Company's business foundation. Moreover, the division has developed unique products tailored to customer needs, including an ultra-pure acetylene black for next-generation LiBs as well as an SMM resin, a novel additive for acrylic resins that raises their heat-resistance. Remaining committed to helping to resolve social issues, the division's manufacturing, R&D and sales sections will work as one to maximize its organizational strengths and to provide solutions for challenges that confront customers.



Shinji Sugiyama Director, Managing Executive Officer, Elastomers & Performance Plastics

Infrastructure & Inorganic Materials

Building on a Solid Track Record in Inorganic Chemistry That Dates back to DENKA's Founding, We Support Sustainable Rural and Urban Development.

In addition to the calcium carbide and calcium cyanamide fertilizers that DENKA has been manufacturing for a century, this division handles cement, special cement additives and other products made by applying inorganic chemistry. Leveraging in-house power generation facilities and limestone mines owned within plant premises, we provide unique products and solutions that support agricultural development and social infrastructure.



The Market Environment

- Increased demand associated with reconstruction since the Great East Japan Earthquake, an upturn in public-sector investment in construction and infrastructure maintenance projects, and a recovery of domestic steel demand
- Burgeoning demand for infrastructure development in China and Southeast Asia
- A shrinking farmer population and a shift in the Japanese government's agricultural policy toward supporting automated and large-scale farming
- Rising electricity rates as well as fuel and material costs and a growing labor shortage
- Growing need for labor saving and environmental load reduction solutions

Strategies

- Facilitate prudent use of resources and thereby help develop a recycling-oriented society
- Expand overseas business with a focus on augmenting local production in Asia
- Maximize profitability by optimizing our production system
- Expand the scope of our solution business to encompass not only construction but also agriculture, etc.
- Release high-value-added products capable of helping save energy and reduce environmental burdens

Tripling Operating Income by Pursuing Overseas Expansion and a Needs-Oriented Approach

The Infrastructure & Inorganic Materials Division has been developing innovative materials and engineering solutions that utilize an array of DENKA's special cement additives, providing structural diagnostic services, proposing optimal solutions and undertaking construction. Building on its track record in these operations, the division's manufacturing, sales and R&D sections are now working together to expand its solution business in China and Southeast Asia, where rapid infrastructure development is under way. We are also applying our accumulated know-how in agriculture-related fields and the development of inorganic materials. Paying a close attention to the latest customer needs, we will advance our solution business to promote energy and resource saving and to curb global warming.



Hideyuki Udagawa Director, Managing Executive Officer, Infrastructure & Inorganic Materials

An Example of a DENKA Product That Helps Address Social Issues Acetylene black (product name: DENKA BLACK)

Social Issues

- Growing calls for lower greenhouse gas emissions
- A need to find alternative resources to counter the depletion of fossil resources
- Increasing concern about air pollution attributable to automobiles exhaust and fine particulate matter

The DENKA Group's Technological Solutions

Acetylene black (DENKA BLACK) is a unique carbon black that has a chain-like structure and boasts superior electrical and thermal conductivity. Manufactured through the thermal decomposition of acetylene gas, DENKA BLACK boasts ultra-high purity and has been widely adopted as a material for high-voltage power transmission cables as well as various types of batteries. In fiscal 2012, we marked the 70th anniversary of DENKA BLACK's release.

To accommodate increasing demand for LiBs for use in electric vehicles and other applications, DENKA is building a new production facility at its Chiba Plant to manufacture an ultra-pure acetylene black. Test operation is scheduled to begin in April 2015.



DENKA BLACK

Expected Technological Innovation

- The creation of high-capacity LiBs
- The development of more compact, lightweight and reliable EV, HEV and portable electronic devices

An Example of a DENKA Product That Helps Address Social Issues The electrochemical repair method for deteriorated concrete structures

Social Issues

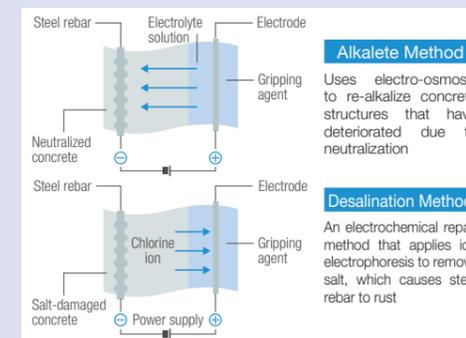
- Infrastructure aging
- Need to reduce environmental burden (waste and CO₂ emissions)

Expected Technological Innovation

A solution for reclaiming and maintaining concrete structures' performance and functions

The DENKA Group's Technological Solutions

- The alkalete method for once-neutralized concrete
- The desalination method for concrete that suffered salt damage

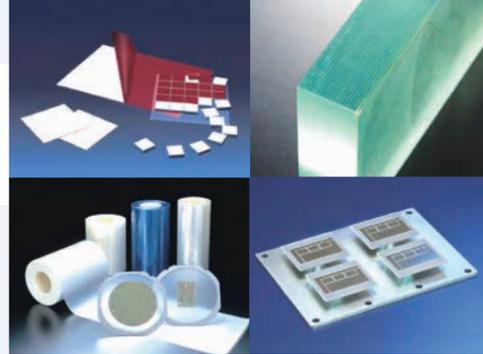


Repair work undertaken on Osaka Castle's main tower

Electronics & Innovative Products

We Create Innovative Materials for Electronics by Fully Leveraging Our Technological Strengths in Organic, Inorganic and Polymer Chemicals.

Underpinned by strong expertise in functional fine particles and thermally conductive substrates, the Electronics & Innovative Products Division provides key thermal control solutions for realizing miniaturization and greater reliability and performance. At the same time, our functional films and adhesives play essential roles in realizing labor-saving, cost-efficient and environment-friendly manufacturing processes. Providing a variety of products to meet customer needs, we will strive to help resolve social issues.



The Market Environment

- Quantitative shrinkage in market demand for electronic materials due to miniaturization and commoditization of devices (e.g., a shift from PCs to smartphones and tablets)
- Burgeoning demand for the development of railway, communication and IT infrastructure in emerging countries

Strategies

Step up the expansion of the solution business and break away from a business structure solely dependent on materials

- 1 Build an optimal production system and achieve a drastic improvement in productivity**
Expand production of fused silica, electronic circuit substrates and films at locations near targeted markets (e.g., producing ALSINK in China); and reduce costs by stepping up quality management
- 2 Develop the seeds of future core business (augment the solution business)**
 - Functional fine particles (for use in lighting, bearings, solar cells, etc.)
 - Adhesives (for use in the processing of touch-screen glass for smartphones and displays)
- 3 Step up collaboration with partner companies and other external organizations while strategically leveraging our intellectual property rights**

Expanding Business Fields with an Emphasis on Adding and Creating New Value

As the global market for electronic materials is undergoing drastic structural changes, the Electronics & Innovative Products Division has launched a new business strategy entitled "VALUE50" in fiscal 2013 in line with the DENKA100 new growth strategies. VALUE50 sets forth a policy of creating new businesses, in particular building a novel business model that packages together products and solutions. With "adding value" and "value creation" as its critical mission, the division will strive to establish a business portfolio that enables us to compete globally.



Manabu Yamamoto Director, Managing Executive Officer, Electronics & Innovative Products

An Example of a DENKA Product That Helps Address Social Issues

TEMPLOC for use in the processing of touch-screen glass for smartphones

Social Issues

- Need for a more cost-effective method capable of accelerating the mass-production of touch-screen glass for smartphones
- Need to reduce the volatilization of waxes and organic solvents at the workplace and the environmental impact of discarding waste cleaning liquid used in processing

Expected Technological Innovation

- The development of an adhesive to replace wax-based temporary fixing agents
- Realization of adhesion and removal processes that are more environment-friendly and suitable for mass-production

The DENKA Group's Technological Solutions

- A material that hardens quickly and evenly with ultraviolet light exposure
- An adhesive that can be peeled off easily without polluting the environment

Product Technologies Aimed at Resolving Social Issues

TEMPLOC is a next-generation temporary fixing adhesive that quickly hardens with a short exposure to ultraviolet light and can be easily peeled off. It also boasts adhering power no less than that of conventional thermoplastic adhesives, such as waxes.

These features help shorten the time required for the hardening and peeling process. This product is also worker- and environment-friendly, eliminating the need for organic solvents as it can be peeled off simply by immersing it in hot water. Advancing these and other technological innovations, we are striving to satisfy customer needs through the provision of total solutions ranging from material development to processing.

Life Science & Environmental Products

With the "Living Environment" and "Lifestyle" as Keywords, We Are Helping Enhance the Quality of People's Lives.

The division is engaged in wide-ranging businesses concerned with people's lifestyles and living environments. For example, it handles materials for construction and civil engineering use, such as rain gutters and corrugated pipes, as well as industrial tapes, food packaging and pharmaceuticals. In addition, the division is promoting the overseas production of TOYOKALON, a synthetic wig fiber that is expected to become popular globally, VINI-TAPE for automobile wire harness and multilayered-food packaging sheets.



The Market Environment

- A shrinking domestic market and intensifying competition
- Growing market potential in emerging countries, reflecting burgeoning purchasing power
- Widespread awareness of food safety
- A graying population

Strategies

- Enhance cost competitiveness through such steps as building an optimal production system (for corrugated pipes)
- Promote a shift to local production for products targeting overseas markets (TOYOKALON, VINI-TAPE and food packaging)
- Explore promising domestic and overseas markets while nurturing next-generation products and technologies (super-heat resistant and multilayered food packaging materials, influenza virus detection test kits and macromolecular sodium hyaluronate)

Stepping up R&D of High-Performance Products; Rebuilding Competitiveness and Developing Markets Overseas

Among the products handled by the Life Science & Environmental Products Division are a number of downstream products that play a significant role in end products, where hints of new businesses can often be found. With "the living environment" and "lifestyle" as keywords, we are taking initiatives for new business creation, proposing a variety of products that benefit society and facilitate sustainable living. We are further streamlining domestic production systems while developing a robust production network in countries abroad. Drawing on accumulated technological expertise, we are proactively expanding into China and other emerging countries, as we recognize the growing need for solutions related to healthcare, food safety and the everyday living environment.



Sanshiro Matsushita Managing Executive Officer, Life Science & Environmental Products

An Example of a DENKA Product That Helps Address Social Issues

QuickNavi-Flu, a quick diagnostic test kit for influenza viruses (produced by DENKA SEIKEN Co., Ltd.)

Social Issues

- A threat of influenza pandemics
- Need to address excessive burdens laid on medical staff

Expected Technological Innovation

- Development of Point of Care Testing (POCT) device that eliminates the need for bulky equipment
- Realization of a more accurate diagnosis method that requires less time and causes minimum physical burden



Diagnostic test kit for influenza viruses

The DENKA Group's Technological Solutions

With "prevention" as a keyword, DENKA SEIKEN has been working to eliminate infectious and lifestyle-related diseases through the provision of vaccines and diagnostic reagents.

- DENKA SEIKEN owns a library of viruses and bacteria that stands out among private companies in terms of size, as well as a wealth of immunochemistry and antibody technologies.
- Applying the immunochromato-method, which employs a monoclonal antibody, the QuickNavi series can be used to diagnose a variety of infectious diseases.

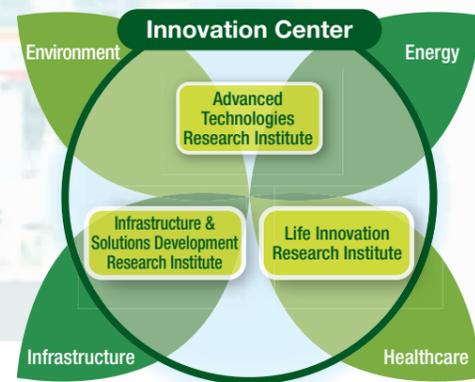
Product Technologies Aimed at Resolving Social Issues

The QuickNavi-Flu influenza virus detection test kit is simple to use and produces results in just eight minutes. While boasting greater accuracy, this product poses minimum physical burden on examinees during specimen collection, contributing to the prevention of pandemics when influenza spreads.

Under the Slogan “Open Innovation and Challenge” We Will Step up R&D Aimed at the Creation of New Products, Businesses and Value.



To accelerate the implementation of its new growth strategies, DENKA is committed to taking on challenges to realize innovation. Completed in April 2014, the DENKA Innovation Center main building is intended to embody this commitment. With the center serving as the Group's key R&D base for new business creation and open innovation, we will focus our Groupwide management resources on the four growth fields of the environment, energy, infrastructure and healthcare and pursue collaborative research initiatives with a variety of partners. In these ways, we will step up the creation of new businesses and next-generation products targeting growth fields.



Our R&D Policy and Structure

As a part of the DENKA100 new growth strategies, we are striving to “Focus management resources on new growth drivers and develop next-generation products.” Specifically, we are focusing on the four growth fields of the environment, energy, infrastructure and healthcare as we promote product development that is more in step with the market. Simultaneously, we aim to go beyond the scope of a material manufacturer, expanding our product lineups and fields of operation to encompass finished products and solution businesses. To that end, in addition to in-house R&D activities, we are pursuing collaborative research initiatives with our strategic partners and other external organizations, to realize open innovation that will, in turn, help us create new value into the future.

The DENKA Innovation Center Main Building Completed

In April 2014, the DENKA Innovation Center main building was completed in Machida, Tokyo, with the aim of upgrading our key R&D base. With an emphasis on achieving innovation, the center will spearhead our R&D activities aimed at promoting the DENKA100 new growth strategies. The building also houses three new R&D facilities. First, the Advanced Technologies Research Institute is intended to pursue breakthroughs in the development of materials, components and solutions for use in the environment and energy fields. Second, the Life Innovation Research Institute is an epoch-making research body that joins DENKA's research section in charge of life science and DENKA SEIKEN's research section for developing next-generation products, such as reagents, virus test kits and vaccines. Lastly, the Infrastructure & Solutions Development Research Institute handles R&D projects aimed at creating

innovative construction materials and methods, thereby advancing our solution business.

Also, the center will closely work with our Polymer & Processing Technology Institute (Ichihara, Chiba), another key R&D base. As such, the DENKA Group is rallying its overall R&D strengths while proactively partnering with external organizations, including public and academic institutions, and introducing external technologies, thereby accelerating the development of new products and businesses.



The DENKA Innovation Center main building

Fiscal 2013 R&D Achievements

NIMS-DENKA Center of Excellence for Next Generation Materials Established

As a part of our initiatives aimed at facilitating inter-organizational joint research with external institutes and universities, we established the NIMS*-DENKA Center of Excellence for Next Generation Materials in June 2013. Bringing together a variety of technologies and ideas that NIMS and DENKA have accumulated, this facility will help us undertake effective and efficient R&D activities aimed at creating innovative products and solution models that meet diverse needs.

Prior to establishing this center, NIMS and DENKA were involved in a co-development project related to a phosphor, which went on to become a successful material for LED applications. Joint R&D efforts have also been launched for electronic circuit substrates, thermally conductive substrates for power devices and other high-performance materials. Moreover, projects now under way encompass a range of materials, including not only inorganic but also organic materials, such as organic polymers and biomaterials. This collaborative approach, which goes beyond the scope of conventional joint research conducted on an individual project basis, is drawing attention as a best practice model for comprehensive R&D partnerships.

* National Institute for Materials Science

Other Joint R&D Initiatives

DENKA also maintains a proactive approach toward developing new products and businesses through collaboration with other private companies that may eventually become strategic partners, in addition to public and academic institutions.

Moreover, DENKA's recent collaborative R&D initiatives have come to involve overseas research organizations and universities. For example, we are engaged in ongoing joint research with Shanghai Jiao Tong University in China in the field of elastomers. Also, we launched an R&D project centered on performance plastics in tandem with Singapore's the country's Institute of Materials Research and Engineering, a research organization operating under the auspices of Agency for Science, Technology and Research. There are many other initiatives aimed at applying a global perspective to developing new products and businesses.



NIMS and DENKA presidents at the signing ceremony

Launching Comprehensive Collaborative Research with Yamagata University

In October 2013, we signed an agreement with the Graduate School of Science and Engineering at Yamagata University that will ensure a closer collaborative research partnership. Since then, DENKA has been applying the university's excellent basic research accomplishments in polymer synthesis, physical property evaluation, molding and processing to the development of next-generation products that meet diverse market needs, such as synthetic resins, elastomers and polymer processing products. Some ongoing joint R&D projects have already yielded samples for potential customers. Looking ahead, we will speed up the creation of new materials in a bid to flexibly accommodate market needs.



Yamagata University and DENKA representatives at the signing ceremony

Initiatives for Fiscal 2014 and Beyond

With the DENKA Innovation Center serving as its key R&D base, the DENKA Group will realize synergies through the integration of its core technologies, which encompass a variety of fields, including ceramics, organic polymers and biomaterials. At the same time, the Group will strive to build closer partnerships with external organizations. We will thereby accelerate the development of next-generation products in the four fields that will become our business drivers as we implement the new growth strategies.

Specific initiatives aimed at facilitating open innovation will include ongoing joint research with NIMS and Yamagata University as well as comprehensive inter-organizational R&D activities that we will ask even more research organizations and universities to join. We will also promote business-to-business collaboration with our strategic partners.

Overseas, we will initiate collaborative research with the Indian Institute of Technology to study elastomers. Plans also call for launching new joint R&D projects in such promising fields as secondary batteries and life science.

Enhancing Competitiveness by Improving Production Process and Pursuing Technological Innovation.

Policies and Structure Aimed at Advancing Our Production Technologies

The DENKA100 Companywide initiative, which culminates in 2015, the Company's centennial year, sets forth six pillars of activities, including "Promote further innovation." This initiative aims to enhance competitiveness and profitability while reducing environmental burdens. Specifically, each production section is responsible for identifying the challenges and goals it faces, including those related to raw materials, facilities and distribution, and then formulating and implementing concrete action plans to improve yield. At the same time, each section provides DENKA Techno School and other training programs to enhance employee understanding of production technologies

and to make sure that the Company's technological heritage is maintained.

Since the launch of DENKA100 in 2007, we have promoted resource- and energy-saving initiatives, such as the recycling of waste for use in cement production. We have also raised the output of our hydroelectric power generation facilities at the Otokorogawa Power Plant by obtaining permission to increase its water intake. Moreover, we conducted a changeover of fuels for thermal power generation and manufacturing process from heavy oil to natural gas, thereby pursuing environment-friendly operations.

Fiscal 2013 Achievements

Strengthening Our Companywide Initiatives in Line with New Growth Strategies

As we promote the DENKA100 new growth strategies, we are striving to scrutinize every cost element irrespective of past practices in a bid to win over harsh competition.

To that end, each production site is working to upgrade its manufacturing processes and facilities, improve operational conditions, raise yields and reduce energy consumption intensity attributable to utilities while pursuing labor saving production and distribution.

Specific Initiatives

- (1) Improved energy consumption intensity per unit of production through the reduction of raw material waste and product defects (the Omi and Omuta plants)
- (2) Improved energy consumption intensity attributable to fuels through the upgrading of facilities, enhancement of operational efficiency and improved recovery of waste heat (the Chiba Plant)
- (3) Promoted labor saving through process automation (the Iseaki Plant)
- (4) Reviewed raw materials and switched to internal production from external sourcing (each plant)

A Comment from Manager Toshiaki Kawanishi General Manager of Production Technology Dept., Technology Div.

The Production Technology Department is in charge of production management and the development of manufacturing technologies. The department also works with production sites to develop processes that are more productive and cost-saving. Under the banner of "scrutinize every cost element" set forth in the DENKA100 new growth strategies, we are systematically promoting energy- and labor-saving as well as yield improvement.

We are also working with engineers from other companies to resolve challenges. In doing so, we are pursuing greater technological expertise while nurturing the next generation of engineers, who will inherit our technologies.



An aerial view of the Omi Plant



The CM-4 styrene monomer production facility at the Chiba Plant



The Iseaki Plant (Ota District)

Every Group Employee Is Participating in GCP Activities Aimed at Solving Material Issues under the Leadership of Section Heads.

Our Structure for Promoting GCP Activities

Business units throughout the DENKA Group are engaged in GCP activities. In fiscal 2013, a total of 142 units, mainly individual departments, implemented their own GCP activities. While the DENKA100 Promoting Department supervises these activities, the DENKA100 Promoting Committee members are assigned to each section and business site to provide support.

GCP Activity Reports and Commendations

Every business unit that takes part in GCP activities formulates their own action plan, with their managers spearheading their efforts to make fundamental improvements in such areas as safety, quality, cleanliness and human resource development. Once every six months, the results of their initiatives are reported on and shared among Group members via DENKA's intranet.

To evaluate their activities, the DENKA100 presentation meetings are held twice a year for the units judged to have undertaken outstanding initiatives. The Company president, officers, general managers of administrative departments and heads of business sites serve as judges and select winners for GCP Grand Prizes, Excellent Prizes and Special Prizes. Moreover, the DENKA100 Promoting Committee members separately review activity reports submitted by all business units Groupwide, and commend brilliant initiatives with the "GCP Activity Award."



DENKA100 presentation meeting

Fiscal 2013 Achievements

Safety Initiatives Themed on Communications —From the 18th DENKA100 Presentation Meeting

To ensure the safety of day-to-day operations, each Group production site strives to enhance communication and facilitate mutual support among workers. Accordingly, "Communication" was the theme of the 18th DENKA100 presentation meeting, held at Head Office on December 4, 2013, at which representatives of 10 business units, including overseas business sites and affiliates, gave presentations.

Staff from the Polyvinyl Chloride Production Department of the Chiba Plant reported on an initiative aimed at preventing accidents that may occur while working in tanks due to oxygen deprivation. Specifically, the department revised its safety checklist in close collaboration with other departments and subcontractors, incorporating displays that allow one to instantly see conditions inside tanks. They won the GCP Grand Prize for their ingenious approach toward safety activities.

To maintain safe and stable operations, DENKA Azumin Co., Ltd. is facilitating communication among all workers, including those of subcontractors, on the back of the changing age distribution of its workforce. The resulting achievements include the implementation of risk prediction training and creation of hazard prediction maps.

The Goi Plant of DENKA Polymer Co., Ltd. has identified maintaining overall technological and safety-related skill levels as a critical issue, since it has increased employee headcount in line with business expansion. In response, the plant has launched an initiative that encourages its staff to interact face to face during regular meetings and while carrying out safety activities.

Denka Advanced Materials (Suzhou) Co., Ltd. is encouraging close teamwork between Japanese and local staff. To counter national, lingual and cultural differences, efforts are now under way to encourage employees to communicate in writing while working to improve Japanese staff's Chinese speaking ability. This subsidiary's report also included their efforts aimed at raising the sense of unity throughout organization, such as facilitating the exchange of courtesies and hosting dinner parties and company trips.



Staff from Denka Advanced Materials (Suzhou)

Topics Facilitating Communication to Enhance Our Sales Capabilities—Niigata Branch

Among those who gave presentations at the 18th DENKA100 presentation meeting were staff from the Niigata Branch of the Sales Division. Niigata City has long been the home of a thriving port, especially in the seventeenth through nineteenth centuries, when it nurtured a tradition of kindness and hospitality. Noting that such tradition may help staff's communication skills, the branch is having employees who are Niigata natives give lectures to colleagues with a view to enhancing their negotiation and sales skills and facilitating day-to-day business operations.

While Enhancing Employee Education Programs, We Are Encouraging Employees to Proactively Think, Learn and Take Action.



Kenji Nakano

Managing Executive Officer, Representative in China
Secretary Dept., Administrative Dept., Legal Dept., HR Dept., DENKA100 Promoting Dept.

We believe our employees are DENKA's most indispensable asset. Therefore, we have positioned human resource development as critical to strengthening our operating base and securing business growth. To survive amid today's harsh business environment, people must be action-oriented and capable of making prompt and accurate decisions. With this in mind, we have established human resource development programs aimed at nurturing employees who can proactively think, learn and take action. These programs are frequently updated and enhanced to better realize our human resource development policy.

Among recent initiatives was the introduction of leadership training for technological specialists in fiscal 2013. Specifically, we began to provide assistant managers working at production and R&D sections with training centered on building up their technological expertise, maintaining our manufacturing traditions and strengthening their leadership capabilities. Moreover, following the enforcement of the revised law pertaining to the employment of the elderly, in fiscal 2014 we launched the "Career and Life Planning Seminar," targeting specialists who have reached the age of 55. This program provides them with an opportunity to consider the best way to develop their careers until they reach age of 65 and how to enhance their lives after their retirement.

DENKA's Human Resource Development Policy and Expectations for its Employees

To achieve the DENKA100 corporate philosophy and our CSR vision, we have established a policy of "Nurturing people who have the ability, motivation and energy to excel in today's highly competitive and rapidly evolving business environment." We expect employees to be able to proactively think, learn and take action. Led by the Human Resource Development Center, we have formulated human resource development programs aimed at realizing the above philosophy, vision and ideals, while updating and enhancing their content every year.



Career and Life Planning Seminar

Content of Human Resource Development Programs (Fiscal 2014)

Mandatory job level-based training programs			Special-purpose training		Specialist courses	DENKA Techno Schools	In-house academic meetings
Specialists	Engineers	General staff	Administrative skills	Technological skills			
New general managers (Class-9)	New Class-9	External training sessions (open seminars) Career and Life Planning Seminar Mental health training sessions (group- and self-care)			All job categories: Internal control, CSR, legal affairs, accounting, information technology, quality management, logistics, trade administration, English and various correspondence courses	Manufacturing techniques, engineering, chemical engineering, plant maintenance, R&D, intellectual property, SQC, quality engineering, safety and the environment	<ul style="list-style-type: none"> • DENKA100 presentation meetings • Results presentation meetings • Technological symposia • Analysis research presentation meetings • Quality symposia • Process symposia
New managers (Class-8)	New Class-8						
New assistant managers (Class-7)	New Class-7						
5th-year employees	Business unit training	Overseas study program at Beijing Language and Culture University	Overseas training program (for beginners)	Leadership training Process technology training Mandatory specialist courses (plant maintenance, cost control and intellectual property)	Technological job categories: Engineering and analysis techniques	Legal affairs, labor management, accounting, languages (English and Chinese) and mental health (group- and self-care)	
3rd-year employees							
2nd year employees							
6-month employees							
New employees							

Fiscal 2013 Initiatives

Mandatory Job Level-Based Training

(1) Enhanced e-learning programs for those who have completed Class-7 to Class-9 programs

In response to individual needs, we expanded the lineup of optional home-learning programs.

(2) Revised the content of program for fifth-year specialists with the aim of motivating trainees to move up to Class-7

Having positioned the program as a way of moving up to Class-7, we revised the program to raise trainees' job awareness.

Special-Purpose Training

(1) Launched leadership training for technological specialists in assistant manager positions

We introduced a new program that combines management and on-site training in a three-day boot camp aimed at turning technological specialists into future executives. For those in assistant manager positions and playing essential roles in production and R&D sections, this program provides intensive training aimed at raising job awareness, passing

on DENKA's proprietary technologies, strengthening worksite leadership and enhancing communication skills. During fiscal 2013, the Omi and Omuta plants implemented the program in June 2013 and February 2014, respectively.

(2) Introduced a mandatory technological specialist course

Although each business site has been providing younger technological specialists with training on cost control, intellectual property and plant maintenance techniques, we have also introduced mandatory joint training on these subjects for all third- and fifth-year employees. This ensures that specialists' training continues without disruption even if they transferred to new jobsites.



Leadership training for technological specialists

Outcomes of Our Human Resource Development Programs

Among the feedback we received from younger employees who took mandatory job level-based training, were such comments as "this periodic joint training helps us acquire essential knowledge without hindering the accumulation of actual business experience. It also provides a place to inspire each other and share experiences as we interact with fellow trainees of the same generation but from different worksites." Also, since Class-7 and higher programs are

designed to incorporate e-learning, these programs are helping busy employees study more efficiently, instilling program content effectively and thus assisting self-motivated learners.

In addition, the DENKA Techno School programs, designed by each business site, are providing trainees with the opportunity to absorb the techniques and expertise of experienced engineers as well as their passionate approach to their work.

Voices of Trainees:

Participating in Leadership Training for Engineers

I participated in leadership training for technological specialists held at the Omuta Plant from February 19 to 21, 2014. A total of 24 employees from each plant attended and toured the plant on the first day. Then, we took part in a seminar centered on discussions on the second and third days.

In line with a theme set out by an external lecturer, I engaged in active discussions with people from various worksites. Although it was rather difficult to reach a conclusion that would reflect the consensus of all and leave everyone satisfied, I realized that such a conclusion, once formulated, would be absolutely better than what was figured out by one person. I would like to put what I have learned into practice to enhance my daily operations as much as possible.



Yoshiaki Yamamoto

Engineering Group,
Technological Development Dept.,
Ofuna Plant

I Will Keep in Touch with My Fellow Trainees so We Can Continue to Inspire Each Other

I was strongly motivated as I participated in a group work training session for six-month employees, even though I was a bit anxious to find myself lagging behind many other trainees who already seemed to becoming skilled workers. Also, I was too self-conscious about making mistakes. However, the session made me more confident by reminding me of the things I have done well as we shared stories about each one's success and failure. Going forward, I will actively interact with those who undergone the training with me to ensure continued mutual inspiration.



Emi Kawabata

Head Office HR Dept. (center, front row)

We Will Remain a Company Worthy of Society's Trust by Maintaining a Fair and Transparent Corporate Structure.

Corporate Governance Structure

We adopted an Audit & Supervisory Board System as the basis of our Corporate Governance System. The said board includes two outside members assessing our operations and management to ensure that our business properly serves stakeholders.

The Board of Directors similarly has two outside members. To ensure solid corporate governance, there are no hierarchical relationships between directors, allowing each to freely oversee and supervise business execution.

Moreover, DENKA established the Management Committee, which is composed of directors, members of the Audit & Supervisory Board and selected executive officers, to streamline and accelerate deliberation on important managerial matters. For such important matters as the drawing up of a budget and capital investment, we set up special committees or deliberative councils by function.

In addition, DENKA has the following internal control systems.

1 Board of Directors, Audit & Supervisory Board and Executive Officers

With the aim of enhancing its corporate governance through management oversight, DENKA has clarified the separation of executive officers' business execution and the Board of Directors' supervisory functions.

The aforementioned two outside directors and two outside members of the Audit & Supervisory Board are appointed as independent directors/auditors under the rules of Tokyo Stock Exchange Inc. They maintain sufficient independence while retaining extensive knowledge in their areas of specialty. This ensures that the Company's management receives supervision from an external viewpoint.

2 Internal Auditing System

The Internal Auditing Department conducts our in-house checks, with assistance from the Legal, Environment and Safety, and Quality Control Management departments. It also works closely with the Product Liability, Responsible Care and other committees based on their specific functions. Each department and committee collaborates to educate on legislation and audit operations. The results are reported to the Board of Directors as needed. Moreover, we inaugurated the Compliance Hotline System to supplement internal audits by swiftly identifying and addressing any violations.

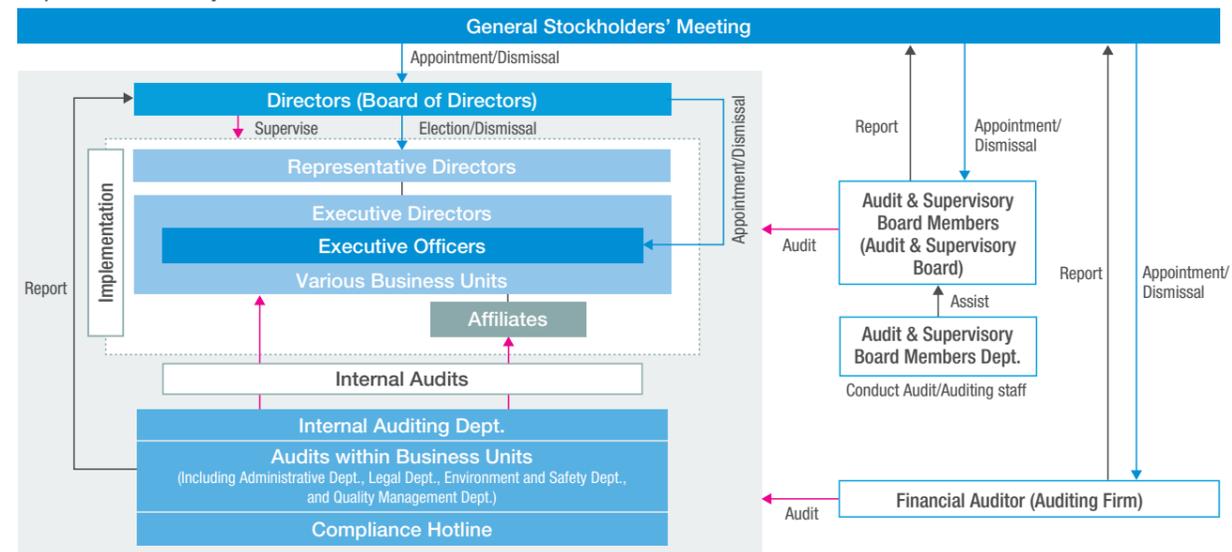
3 Internal Control Reporting System

In accordance with Japan's Financial Instruments and Exchange Act, DENKA has set up an internal control reporting system aimed at ensuring the appropriate disclosure of financial and other corporate information. We conduct checks of Groupwide business procedures to reduce mistakes and possible risks, swiftly addressing any problems that are discovered. The status of our internal control is disclosed in an internal control report after evaluation applying "Standards for Management Assessment and Audit concerning Internal Control over Financial Reporting" formulated by the Business Accounting Council of the Financial Services Agency.

The fiscal 2013 internal report affirmed the effectiveness of the DENKA Group's internal control, while the attached certificate prepared by the independent accounting firm (ERNST & YOUNG SHINNIHON LLC) that audited the report concluded that all significant aspects of disclosure were proper.

The chart below shows our corporate governance structure, including the Internal Auditing System.

Corporate Governance System



Compliance

Compliance is essential for sustainable growth. We accordingly adhere to internal rules and legislation and refrain from acts that violate moral and ethical norms. The DENKA Group Ethics Policy was established in 2002 to codify Groupwide standards of conduct, while the Ethics Committee, chaired by president, oversees compliance, thereby ensuring adherence to this policy. Moreover, the Legal, Environmental and Safety,

Intellectual Property and other departments constantly strive to secure thorough compliance with an emphasis on matters pertaining to their respective specialties.

DENKA's in-house training programs, led by the Human Resource Development Center, also focus on providing employees with compliance education.

Compliance Hotline System

We have set up and operate the Compliance Hotline in keeping with the DENKA Group Ethics Policy. This system covers any shortfalls in our internal control and compliance systems by enabling us to fix organizational problems that may arise.

The hotline accepts calls on actions that may or do violate that policy. The Ethics Committee quickly addresses reports.

The hotline's mandate is to be fair and swift. It receives reports from the Audit & Supervisory Board Members Department

and the labor union, which operate independently, as well as from the Ethics Committee Administrative Office and general affairs sections within all offices. People can also send reports to an external law firm. The hotline is accessible via phone or email, with due consideration given to providing various reporting channels. During fiscal 2013, we received one report.

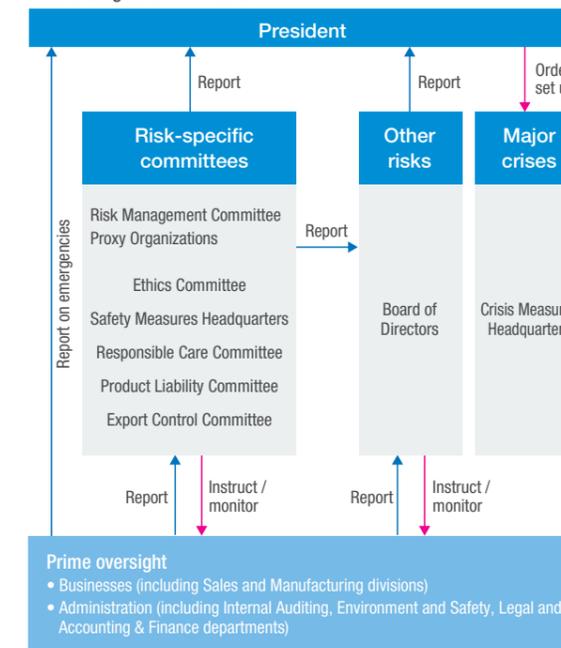
The DENKA Group Ethics Policy specifically safeguards whistleblowers from discrimination and mistreatment.

Risk Management

An essential part of corporate governance is understanding the diverse and numerous risks inherent in corporate activities and exerting proper risk control. In general, each business unit is responsible for identifying and managing its specific risks. For environmental, safety, product liability and export control issues that affect the entire Company, we have in place special sections and permanent committees to handle matters. We have also appointed a team of specialists to audit our Group subsidiaries for their risk management.

We formulated our Risk Management Guidelines to comprehensively tackle incidents that may have major impact on corporate activities. In addition to the permanent Risk Management Committee, we set up the Crisis Measures Headquarters to act whenever contingencies arise.

Risk Management Overview



To Create a Lively and Sound Workplace, We Are Facilitating Worksite Communication While Involving All Workers in Safety Activities.



Hitoshi Watanabe
Representative Director,
Senior Managing Executive Officer,
Chief Technology Officer

Safety is essential to sustainable business operations. We must spare no effort to attain safe operations even as we endeavor to improve our productivity. With this in mind, DENKA is pursuing safe and stable production activities in a bid to become a robust “good company.”

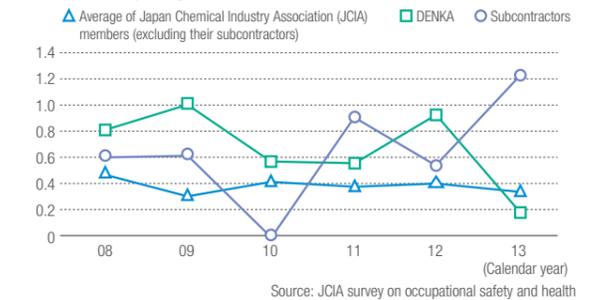
As part of efforts to create a lively, sound and rewarding workplace free of occupational accidents, we are promoting safety activities under the leadership of heads of each section. At the same time, we are rallying our full strength to advance our production technologies with the aim of eliminating facility-related incidents.

the number of occupational accidents has decreased year on year. However, accidents resulting from operator actions due to insufficient on-site experience have occurred on many occasions, while the number of accidents involving workers from subcontractors failed to decrease, revealing the insufficiency of communication among plant workers. We conclude that our safety level has hardly improved.

The Number of Occupational Accidents (DENKA and Subcontractors)*

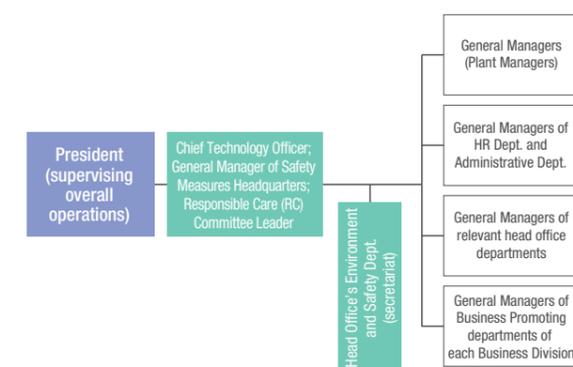
(Calendar year)	DENKA				Subcontractors				Total			
	Absence	No time-off	Minor injury	Death	Absence	No time-off	Minor injury	Death	Absence	No time-off	Minor injury	Total
2012	6	15	5	0	1	9	6	0	7	24	11	42
2013	1	8	2	1	6	3	1	1	7	11	3	22

Accident Frequency Rates*



* Rates are calculated in accordance with the instruction of the labor standards inspection office and JICIA guidelines.

Safety/Responsible Care Management Structure



1. The Safety Measures Headquarters and the RC Committee each meet at least three times a year.
2. Each business site in Japan holds annual safety review meetings to assess the implementation status of occupational safety management plans and RC policies. Also, we encourage the sharing of best practices through safety networking meetings and other events encompassing all business sites.
3. In fiscal 2013, overseas manufacturing and R&D bases began holding annual safety review meetings.
4. The DENKA Group's five mainstay production subsidiaries, namely, DENKA Polymer Co., Ltd., DENKA SEIKEN Co., Ltd., CRK Corporation, Hinode Kagaku Kogyo, and DENKA Azumin Co., Ltd., carry out RC activities under the supervision of Head Office's Environment and Safety Department, making frequent reports to and receiving assistance from the department.

Fiscal 2013 Accident Records and Safety Activities

Accident Records

In fiscal 2013, as reported on pages 6 and 7, we experienced the blowout of heat blast from the Omi Plant's electric furnace and a fire during the demolition of the Chiba Plant's nonoperational facility. In addition to these major accidents, some occupational accidents during the year included a case where a worker suffered oxygen deprivation while in a tank as well as incidents in which workers were nearly caught or pinned by machinery, any of which could have turned into a serious accident.

The number of occupational accidents was 22, including one fatal accident. Seven accidents resulted in absence from work, while 11 accidents required no time off. The remaining three accidents resulted in minor injuries. The number of facility-related incidents totaled six and included three explosion and fire incidents, two environmental accidents involving leakage and one facility failure. Since fiscal 2010, when we began promoting safety activities under the theme “creating a lively and sound workplace by facilitating communication,”

Fiscal 2014 Initiatives

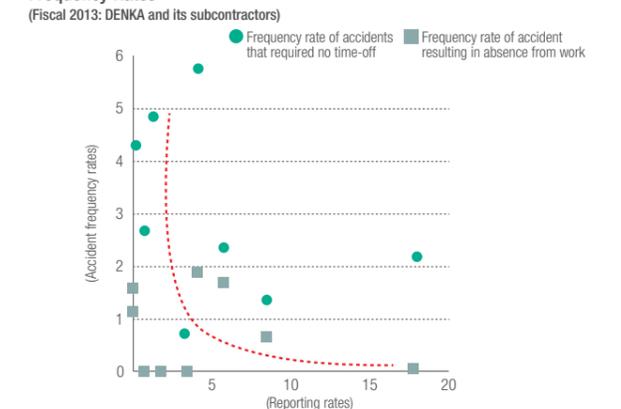
Reflecting on our fiscal 2013 accident records, we are stepping up employee education on safety even further. At the same time, we are striving to ensure the security of chemical plants while promoting safety activities in which everyone working at DENKA plants participates. We are also working to create a lively and sound workplace, following up on our ongoing efforts since fiscal 2010.

Specifically, a security evaluation system developed by the Japan Society for Safety Engineering has been applied to evaluate our production lines for such products as styrene and calcium carbide, with the aim of identifying facilities in need of improvement and formulating countermeasures. Moreover, mutual facility inspections are carried out by plant managers and safety experts. Safety activities in which every plant worker participates include near-accident analysis and risk prediction initiatives to identify potential danger at worksites as well as activities to create a lively and sound workplace under the leadership of managers. In addition, we are striving to facilitate communication between all plant workers, including those from partner companies. (These initiatives are introduced on page 21 in the section entitled “Good Company Program (GCP) Activities.”)

Near-Accident Reporting and Analysis

As a part of their safety activities, each business site is encouraging the reporting and analysis of near-accidents. Our data shows that there is an inverse relationship between the number of occupational accidents occurring at each site and the number of reports submitted. We are striving to better reflect lessons from reported incidents in our safety measures.

Relationship between Near-Accident Reporting Rates and Accident Frequency Rates



Safety Activities Undertaken at Overseas Production Sites

We operate four plants in Singapore, including the Tuas South Plant, which was launched in fiscal 2013 to manufacture TOYOKALON synthetic wig fiber. In addition to complying with local safety standards, each plant holds periodic safety management conferences to which it invites representatives from its parent plant in Japan, with the aim of sharing safety best practices.

Meanwhile, Denka Advanced Materials (Suzhou) Co., Ltd., a subsidiary that maintains a 24-hour production schedule for electronic packaging materials, is striving to create a safe and clean workplace. Its 80 national staff are working to prevent accidents specific to sheet manufacturing lines, such as being caught or pinned by machinery or receiving cuts. This subsidiary has also built a good track record of implementing Four-S

activities* and is stepping up risk prediction activity, resulting in the acquisition of “Class-III Business Operator” certification under China's Production Safety Standards. Efforts are now under way to acquire “Class-II” certification and above.

Denka Chemicals Development Suzhou Co., Ltd., which engages in R&D targeting the Chinese market, focuses on raising researchers' safety awareness. The researchers follow a daily routine of safety checks and self-evaluations using a “safety log” in addition to receiving training on the handling of hazardous substances. Furthermore, monthly safety meetings are held to update machinery operation manuals, undertake accident case studies and discuss other safety issues.

* An initiative to ensure the four-S features at the workplace. The four-S's refer to *Seiri* (sort), *Seiton* (set in order), *Seiso* (shine) and *Seiketsu* (standardize).

Focusing on Responsible Care Activities, We Seek to Reduce Energy Consumption and Environmental Burdens throughout the Life Cycles of Our Products.

Our policy

Every third year, the DENKA Group updates its Medium-Term Environmental Plan and sets new targets for energy consumption as well as PRTR substance and waste emissions.

Under the Fifth Medium-Term Environmental Plan, we are striving to decrease energy consumption intensity 1% per year, with the goal of achieving a 3% cut in fiscal 2015 compared with the fiscal 2012 level.

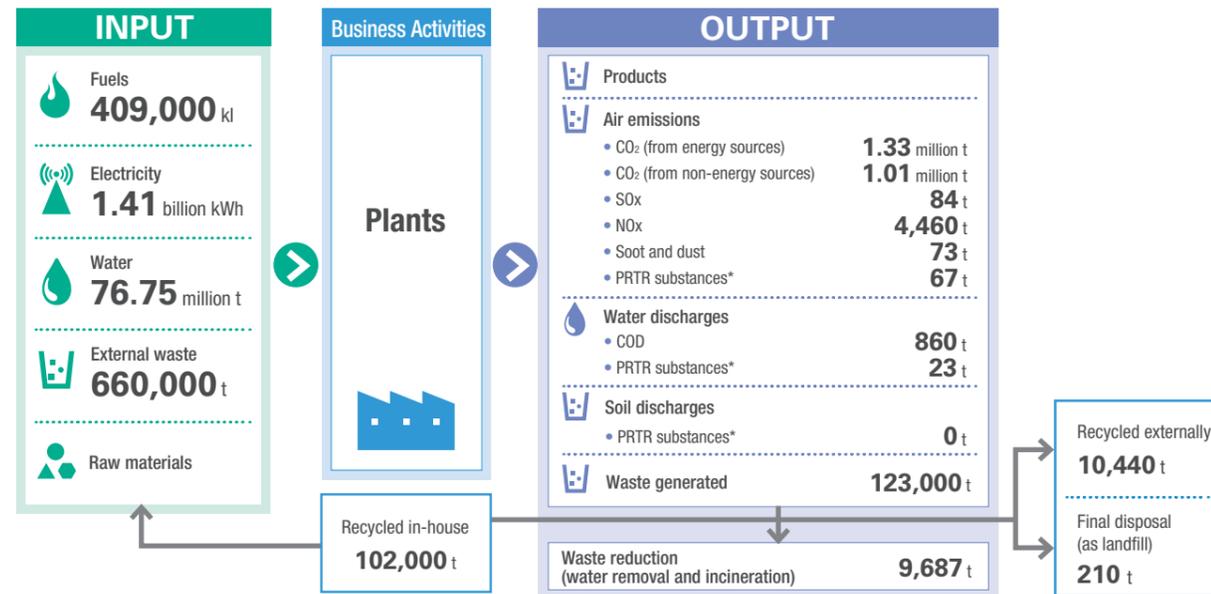


Yoshihisa Kobayashi
General Manager,
Environment and Safety Dept.

Fifth Medium-Term Environmental Plan

Items	Fiscal 2013		Fiscal 2014	Fiscal 2015
	Target	Result	Target	Target
Energy consumption intensity (fiscal 1990 base)	0.93	0.90	0.91	0.90
Energy consumption intensity (fiscal 2012 base)	0.99	0.97	0.97	0.96
CO ₂ emissions intensity (energy derived: fiscal 2012 base)	1.24 (0.99)	1.24 (0.99)	1.22 (0.98)	1.20 (0.97)
Emissions of PRTR substances (tons)	95	90	92	88
Final landfill waste (tons)	177	210	178	176

Overview of Environmental Impacts (totals of all production sites for fiscal 2013)



This environmental impact data encompasses DENKA's plants and main affiliates within those facilities.

Major plants: Omi, Omuta, Chiba, Shibukawa, Ofuna, Isesaki

Major affiliates:

- Omi Plant: Denal Silane Co., Ltd., Denak Co., Ltd.
- Chiba Plant: TOYO STYRENE Co., Ltd., Taiyo Vinyl Corp.

* PRTR substances calculation excludes TOYO STYRENE Co., Ltd. and Taiyo Vinyl Corp. inside the Chiba Plant. Waste emissions calculation excludes TOYO STYRENE Co., Ltd.
* Note: JUZEN Chemical Corporation inside the Omi Plant and Chiba Styrene Monomer Ltd. inside the Chiba Plant were consolidated into DENKA.

Explanation of Inputs

- Fuels are the sum of all fuels used at each production site, converted into crude oil equivalents on a calorie basis. They include fuels for in-house power plants.

Explanation of Outputs

- CO₂ emissions from energy sources represents emissions from in-house fuel consumption and from electricity purchases. CO₂ emissions from non-energy sources cover mainly the portion that is derived from raw materials.
- COD is the BOD discharge into rivers converted into COD values.
- External waste recycling covers materials converted externally into resources or fuel.
- Final disposal refers to material buried on Company premises or at external landfill sites.

Environmental Conservation

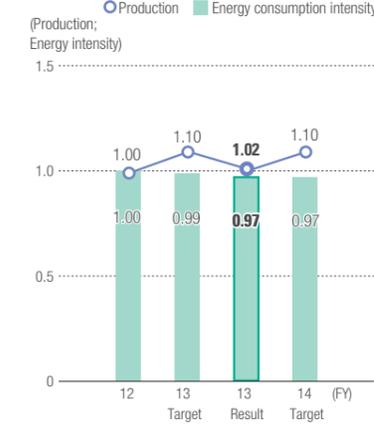
From fiscal 2013, data include emissions from some Group affiliates.* Also, we began posting data on emission ratio trends in addition to the amount of final landfill waste.

Production Volume and Energy Consumption Intensity (Relative to the Fiscal 1990 Level)



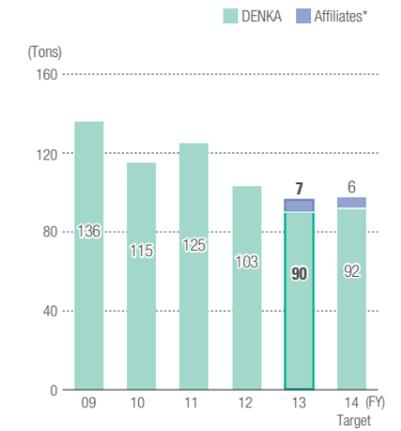
Note: Fiscal 1990 figure = 1

Production Volume and Energy Consumption Intensity (Relative to the Fiscal 2012 Level)



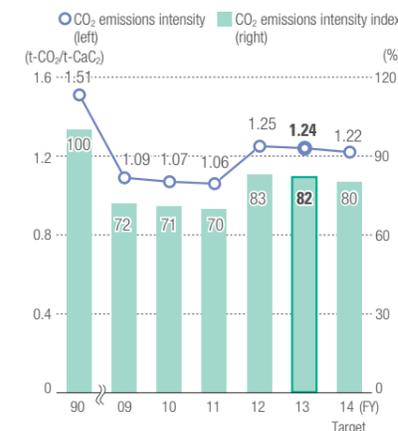
In fiscal 2013, the energy consumption intensity was 97% of the fiscal 2012 level, better than our initial target of 99%. This was mainly attributable to the success of energy-saving measures implemented at cement, POVAL and styrene monomer production facilities and stable output from our hydroelectric power generation facilities. Moreover, this figure is equivalent to around 90% of the fiscal 1990 level. We are continuing to promote energy-saving efforts while enhancing the efficiency of in-house power generation, aiming for a year-on-year 1% decrease every year until the end of fiscal 2015.

PRTR Substances

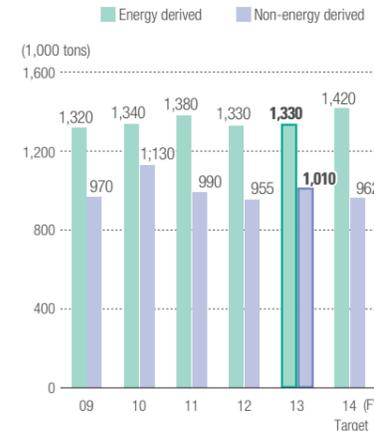


In fiscal 2013, total emissions of PRTR substances decreased approximately 13% (on a non-consolidated basis) compared with the fiscal 2012 level. This was mainly due to the Chiba Plant's switch to an aqueous industrial tape adhesive that uses less toluene. Although production volume is expected to rise in fiscal 2014, we will continue to systematically reduce PRTR substances, especially from the Chiba Plant.

CO₂ Emissions Intensity (energy derived)

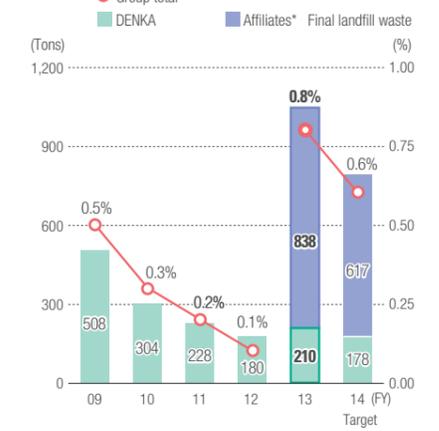


CO₂ Emissions



In fiscal 2013, the CO₂ emissions intensity was 99% of the fiscal 2012 level. Meanwhile, CO₂ emissions intensity attributable to purchased electricity deteriorated, offsetting a decrease in CO₂ emissions intensity attributable to the success of our energy-saving measures and stable output from hydroelectric power generation, which have contributed to the great improvement in energy consumption intensity. Nevertheless, we will pursue energy-saving measures and increase output from our in-house power generation facilities while enhancing the efficiency of these facilities.

Waste Emission Ratio



In fiscal 2013, the amount of final landfill waste increased approximately 17% compared with fiscal 2012. This was mainly attributable to the replacement of bag filters used at the Omuta Plant's electric furnaces and the disposal of worn-out flexible containers used at the Chiba Plant. In terms of the emission ratio across all Group members and affiliates, we have maintained zero emissions. We will strive to further improve manufacturing processes and yield to minimize the amount of waste generated by operations.

Note: Emission ratio (%) = amount of final landfill waste/amount of waste generated X 100 (In DENKA's definition, "zero emissions" means the emission ratio lower than 1%.)

* Consisting of nine major affiliates in charge of production:

Denka Singapore Pte. Ltd. (Merbau and Seraya plants), DENKA Advantech Pte., Ltd. (Tuas and Tuas South plants), Denka Advanced Materials (Suzhou) Co., Ltd., Denka Chemicals Development Suzhou Co., Ltd., DENKA Polymer Co., Ltd., DENKA SEIKEN Co., Ltd., CRK Corporation, Hinode Kagaku Kogyo and DENKA Azumin Co., Ltd.

WEB Data on other emissions are posted on page 8 of the web-based CSR Report 2014 references (PDF). Also, please refer to pages 9 and 10 of the site reports (PDF) for emissions data by each business site, overseas subsidiary and affiliate.

We Are Promoting the Use of Clean Energy to Bolster Our Environment-Friendly Operations.

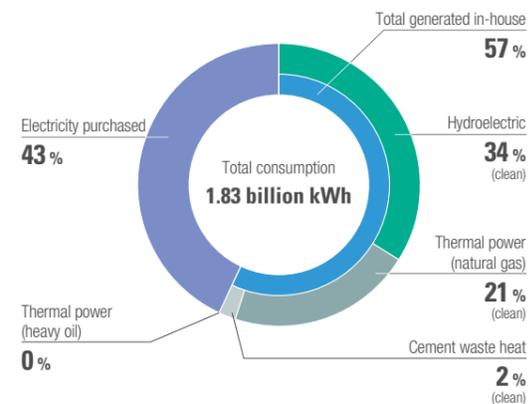
Increasing the Proportion of Clean Energy in Total Energy Use

DENKA uses electricity generated by 15 hydroelectric power plants, which include five that are jointly owned, three thermal power plants and a cement waste heat recovery power system as well as purchased electricity. The in-house power generation ratio is approximately 57% of total electricity use.

Hydroelectric power generation accounts for 34% of DENKA's electricity use, making it an essential electricity source. This clean energy source not only makes a significant contribution to the reduction of CO₂ emissions, it also offers a stable electricity supply.

At thermal power plants, we have been changing over the fuel used to natural gas while improving power generation efficiency by installing cogeneration facilities.

Power Sources in Fiscal 2013



Initiatives to Utilize Clean Energy

Since its founding, DENKA has been operating its own hydroelectric power plants in order to secure a stable electricity supply. Currently, DENKA owns one hydroelectric power plant along the Omi River system, five along the Himekawa River system and four along the Umikawa River system. In addition, Kurobegawa Electric Power Company, which was jointly established by DENKA and Hokuriku Electric Power Company, maintains five hydroelectric power plants. The total maximum output of all these facilities is 114,650kW.

To reduce CO₂ emissions from its thermal power plants, DENKA has been changing over the fuel used from heavy oil to natural gas. Moreover, the Omi Plant has an in-house power generation system that utilizes waste heat recovered from cement production as well as a biomass boiler fed by scrap wood.

In response to the enactment of the feed-in-tariff law for renewable energy, DENKA established mega solar power generation facilities at its Shibukawa and Isesaki plants. We commenced the sale of electricity to Tokyo Electric Power Company in July 2013. With a combined maximum output of 3.2MW from the two facilities, we expect annual power generation amounting to 3,600,000kWh.



The Oami Power Plant (hydroelectric power generation)



Mega solar power generation facility at the Isesaki Plant



[Hydroelectric]		The total maximum output of hydroelectric power generation: 114,650 kW	
1	Omigawa Power Plant 3,300 kW	9	Umikawa Power Plant No. 3 2,600 kW
2	Kotakigawa Power Plant 4,200 kW	10	Umikawa Power Plant No. 4 900 kW
3	Oami Power Plant 25,900 kW	11	Himekawa Power Plant No. 6* 26,000 kW
4	Otokorogawa Power Plant 9,800 kW	12	Takigami Power Plant* 15,000 kW
5	Yokokawa Power Plant No. 1 10,000 kW	13	Nagatsuga Power Plant* 5,000 kW
6	Yokokawa Power Plant No. 2 16,000 kW	14	Sasakura Power Plant No. 2* 10,200 kW
7	Umikawa Power Plant No. 1 3,800 kW	15	Kita-Otari Power Plant* 10,700 kW
8	Umikawa Power Plant No. 2 4,700 kW		
16	New Omigawa Power Plant*1 (8,000 kW) (Completion scheduled for 2018)		
		* Jointly owned with Hokuriku Electric Power Company	
Solar*1		The total maximum output of thermal power generation: 97,260 kW	
	Shibukawa*2 (2,200 kW)	Gas turbine (cogeneration)	Tomi 17,760 kW
	Isesaki (1,000 kW)		Chiba 12,720 kW
			Ofuna 680 kW
Thermal			Shibukawa 1,000 kW
	Omi 17,000 kW	The total maximum output of DENKA's in-house power generation: 211,910 kW	
	Omi cement 11,100 kW		
	Tomi 25,000 kW		
	Chiba 12,000 kW		

*1 Output from the New Omigawa Power Plant and solar power generation facilities are not included as these facilities' sole purpose is supplying electricity to external companies.
*2 DENKA Solar Power Shibukawa

Initiatives to Secure Electricity Supply and Augment In-House Generation Capacity

Because of the energy-intensive nature of the chemical industry, DENKA considers not only the securing of the electricity supply but also energy saving and the reduction of environmental burdens to be essential to ensuring sustainable operations.

New Omigawa Power Plant

Plans call for starting the construction of a new hydroelectric power plant in 2015 upstream of the Omigawa Power Plant. The new plant will boast a maximum output of 8,000kW and an annual power generation capacity of approximately 26,000,000kWh. All of the plant's output will be sold to electric power companies. With an eye on operational kickoff in 2018, construction will be carried out with due consideration given to the environment of surrounding area.

Increasing the Capacity of Existing Hydroelectric Power Plants

In fiscal 2012, DENKA obtained permission to increase its annual water intake and raised the maximum output of its Otokorogawa Power Plant from 8,400kW to 9,800kW. Water intake is increased only during high-water season (from the mid-April spring thaw to the end of July) and has no impact on the river ecosystem. Looking ahead, we are considering increasing water intake at other plants. Moreover, we will upgrade existing facilities to enhance their efficiency, with the aim of augmenting our in-house hydroelectric power generation capacity.



Power distribution facilities in winter



Dam of a hydroelectric power plant

Maintenance and Management of Hydroelectric Power Plants

The run-of-river type hydropower generation system employed at our in-house hydroelectric power plants utilize strong river currents. These facilities, therefore, are subject to severe abrasion and occasionally suffer extensive damage due to mudslides. Because they are located in heavy snowfall areas, regular snow removal and periodic inspections have to be carried out in winter (e.g., checking transmission lines with helicopters). In sum, maintaining and managing hydroelectric power plants requires constant vigilance against the forces of nature.



A helicopter used to check transmission lines

Mega Solar Power Generation

In February 2014, DENKA Solar Power Shibukawa suffered damage to some panel mounts due to heavy snowfall. Although some panels had to be disconnected, the facility was able to maintain output almost as planned.



Snow damage at DENKA Solar Power Shibukawa

Message from the General Manager

In line with the DENKA100 management plan, we made the decision to construct a new hydroelectric power plant. Hydroelectric generation systems are stable sources of "clean energy," and are known to last more than 100 years. We are confident that the establishment of the new plant will contribute to the greater utilization of clean energy. We will also duly consider the environment of the surrounding area in the course of construction. We will make the best use of resources available as we strive to contribute to society through environment-friendly corporate activities.



Shuichi Hirai
General Manager, Electric Power Dept., Technology Div.

As a Cement Producer, We Are Committed to Fulfilling Our Social Responsibility to Contribute to a Recycling-Oriented Society.

Recycling Business in Cement Production

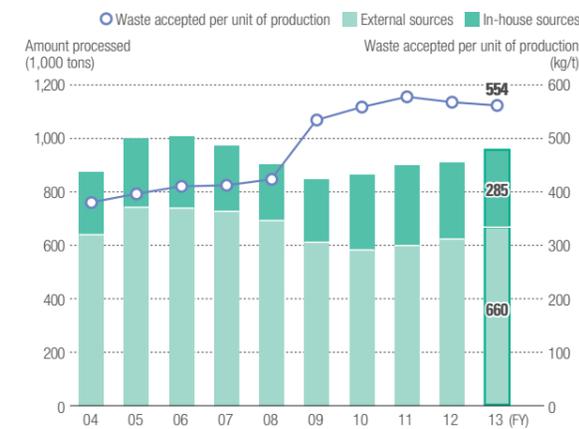
The waste material recycling business at the Omi Plant involves the utilization of coal ash from thermal power stations, waste soil from construction sites, sludge from waterworks facilities and foundry sand generated from die-casting as raw materials for cement. The plant also receives recycled oil, waste plastic, automobile shredder residue (ASR) and scrap wood for use as fuel sources.

In fiscal 2013, DENKA used 554 kilograms of recycled materials for every metric ton of cement produced.

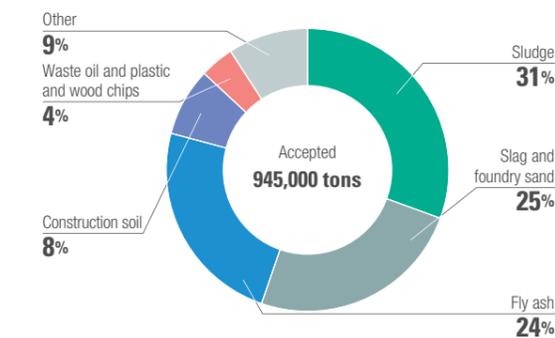
For fiscal 2014, we will promote the ongoing recycling of ASR and waterworks sludge, both of which were recently incorporated into our cement production system, in addition to the utilization of construction soil.

Looking ahead, we will proactively expand our facilities' waste processing capacities while increasing the type of waste used in cement production. Simultaneously, we will strengthen cooperation with diverse businesses that emit waste materials and other corporations involved in waste collection and transportation as well as local government bodies in a bid to help realize a recycling-oriented society.

Volume of Waste Accepted

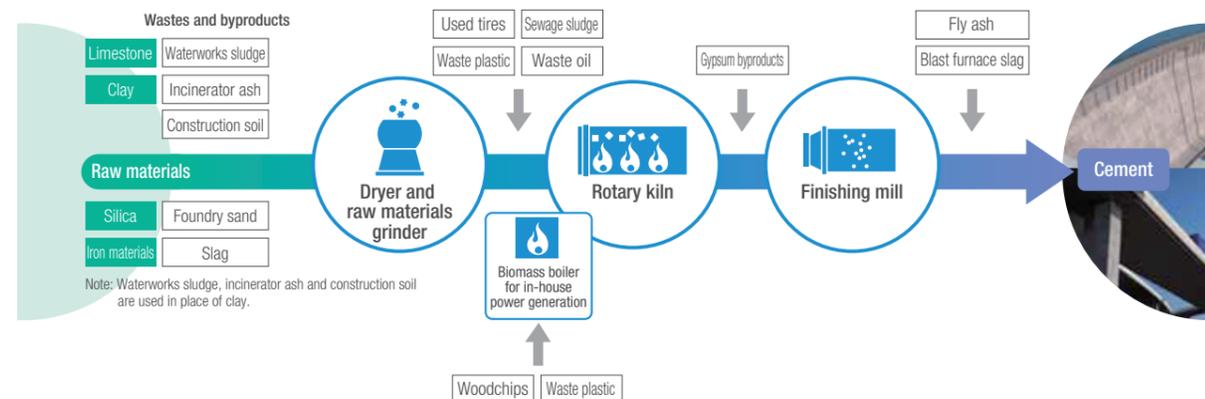


Breakdown of Waste Accepted in Fiscal 2013



The Omi Plant's cement production facility

Recycling Process Flowchart



Waste Heat Recovery and Biomass Boiler

The Omi Plant's cement production system utilizes a waste heat recovery power system constructed in 1983. Boasting a maximum output of 11,000kW, this facility employs a steam-turbine cycle driven by waste heat recovered from the cement production process.

The Omi Plant has been striving to enhance the thermal efficiency of its cement kiln. Because of that, the volume of waste heat emitted by the kiln fell, resulting in a decline in power output from waste heat recovery to approximately 7,000kW.

To offset this decline, in 2003 we utilized subsidies from Japan's New Energy and Industrial Technology Development Organization (NEDO) to fund the installation of a biomass boiler that immediately went into full-scale operation. Thanks to this boiler feeding the turbine with high-pressure steam, we managed to fully utilize the capacity of the power system.

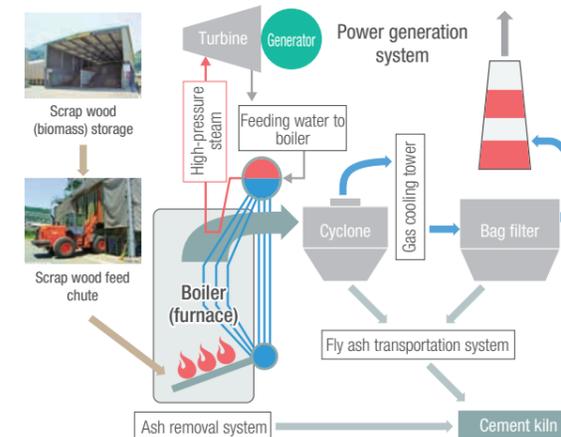


Biomass boiler

The Omi Plant's Cement Waste Heat Recovery Power System

Output: 11,000kW (consumed solely in-house)
Of which, 3,500 to 4,000kW: generated using steam produced by the biomass boiler

Outline of Biomass Boiler Facility



The main fuel used in our biomass boiler is scrap wood from construction sites, collected mostly in Niigata, Nagano and Toyama prefectures. Currently, the volume of scrap wood from such sources totals approximately 30,000 tons per year.

Because of the high-temperature incineration, at 1,000 to 1,100 degrees Celsius, the facility generates virtually no dioxin and thus satisfies Japan's latest dioxin regulations for recently installed incinerators, which sets the limit on maximum dioxin generation volume at 0.1 nanogram per cubic meter of exhaust gas. In addition, we eliminate secondary waste from the boiler by utilizing the resulting ash as a cement ingredient.

With the launch of this biomass boiler, DENKA became the first chemical manufacturer in Japan to operate a power

generation facility that exclusively burns scrap wood without the use of any fossil fuel. Operating for over 10 years, the biomass boiler enhances energy efficiency and contributes to the reduction of CO₂ emissions from the use of fossil fuels and is developing into a promising countermeasure against the depletion of natural resources.

Looking ahead, we will further expand the range of waste materials and byproducts we accept, leveraging our technologies to turn them into resources. By doing so, we will augment our business operations while contributing to society in various ways, including by reducing environmental burdens.

A Comment from an Engineer

Eleven years have passed since we started operating the biomass boiler. In the beginning, we faced a number of troubles, such as facility failures and imperfect combustion, that prevented continuous operation. Thanks to facility improvements and the adoption of more sophisticated operating procedures, we are now able to run the facility constantly for longer than six consecutive months. We will continue to strive to secure stable output from the biomass boiler.



Makoto Daio
Chief Engineer in charge of boiler turbines, Cement Section, Cement Dept., Omi Plant

We Are Implementing Our CSR Procurement Policies and Guidelines in Cooperation with the Entire Supply Chain.

CSR Procurement

The DENKA Group is striving to build a robust partnership with all its business partners along the supply chain to ensure that we work together to fulfill our social responsibilities. To that end, in 2013 the Group established CSR Procurement Policies and CSR Procurement Guidelines* based on the DENKA Group Guidelines,* thereby clarifying its approach to and standards for CSR procurement.

In 2014, we began distributing questionnaires to our raw material suppliers in accordance with criteria set forth in the CSR Procurement Guidelines. We will enhance our partnership with them through the provision of feedback on their CSR initiatives. The questionnaires will be passed out in a periodic manner as we aim to promote CSR procurement continuously.

Message from the General Manager

We believe that our pursuit of lasting trust as an outstanding manufacturer cannot be achieved without the cooperation of suppliers, as we have to work together to meet our responsibilities to society all along the supply chain. With this in mind, DENKA will work hand in hand with suppliers to resolve challenges confronting them through the provision of feedback on questionnaires and the establishment of robust partnerships founded on mutual understanding and trust.



Toyoki Yokoyama
General Manager, Purchasing Dept.

The CSR Procurement Policies

1. We will maintain respect for human rights while striving to improve the workplace environment and occupational safety and health.
2. We will pursue environment-conscious procurement, striving to secure safety and to reduce our impact on the earth's environment.
3. We will undertake procurement activities based on compliance with relevant laws, regulations and corporate ethics.
4. We will purchase raw materials and equipment and consign construction work by comprehensively taking into account such factors as quality, prices and delivery time as well as suppliers' technological capabilities, supply reliability and their environmental conservation initiatives.
5. We will sincerely engage with our suppliers and treat them as important business partners, fostering mutual understanding and trustworthy relationships with them through fair business transactions.
6. We will not accept from our suppliers nor provide them with any gifts or entertainment of value that are deemed in excess of social norms or of an inappropriate nature.
7. We will not divulge any non-public information acquired in confidence from our suppliers in the course of procurement activities while properly managing and protecting their intellectual property rights.
8. We will maintain an equal partnership with all suppliers and provide them with equal opportunities for competition in a fair manner.

Green Procurement

We believe that good products are made only from good raw materials and through appropriately designed and controlled processes. We also recognize that upstream management is basic to controlling hazardous substances. With these in mind, we are clarifying the required characteristics of procurement items while implementing upstream management aimed at securing quality assurance and compliance with laws and regulations.

Prior to procurement, we agree with suppliers on purchasing specifications that are in conformity with domestic and international environmental regulations and other requirements. We also obtain Safety Data Sheets (SDSs),

Material Safety Data Sheets plus (MSDSplus) and Article Information Sheets (AISs) while confirming the results of screening for substances subject to mandatory management, such as those under EU's RoHS*1 regulations.

Moreover, with the aim of securing product safety, we conduct auditing at and give guidance to suppliers as necessary by using our in-house developed Negative List.*2

*1 Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

*2 A list of chemicals that ranks substances regulated by laws and subject to reporting obligations under guidelines for the automobile, electric equipment and electronics industries by their level of hazard, based on which their controlling methods are determined

Response to the Conflict Minerals Issue

In the United States, listed companies are obliged to report on the status of the use of conflict minerals to the Securities and Exchange Commission (SEC) in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act enacted in July 2010 and rules issued by the SEC in August

2012. Although DENKA is not subject to this legislation, the Company considers it a social responsibility to undertake tracking surveys when requested by customers to make sure that its products are conflict mineral free.

While Enhancing Communication with Our Shareholders and Investors, We Strive to Reflect Their Opinions in Business Operations.

Our Approach to Information Disclosure

In accordance with Japan's Financial Instruments and Exchange Law and timely disclosure rules set forth by the Tokyo Stock Exchange, DENKA appropriately discloses information with the aim of ensuring the transparency of its management. It is also our policy to proactively disclose information that does not fall under these regulations whenever such information is considered helpful to our shareholders and investors.

Moreover, using such opportunities as results briefings, corporate briefings for individual investors and the General Stockholder's Meeting, we are enhancing communication with our shareholders and investors while reflecting their feedback in management decisions and business activities.

Results Briefings

DENKA holds periodic results briefings for analysts and institutional investors, believing that maintaining a proactive approach to disclosing the latest corporate information to shareholders and investors can enhance their understanding of our business operations and growth strategies.

A results briefing for the fiscal year ended March 31, 2014, was held on May 9, 2014. During the briefing, we

presented our fiscal 2013 financial results and performance forecasts for fiscal 2014 while providing explanations of our fiscal 2013 initiatives under the current growth strategies set forth in the DENKA100 management plan, as well as the overseas expansion of our special cement additive business.

Corporate Briefing for Individual Investors

On August 29, 2013, DENKA held a corporate briefing for individual investors in Niigata City.

At the briefing, we presented DENKA's corporate overview and history as well as an outline of its domestic business network and introduced our Niigata-based Omi Plant, which boasts clean hydroelectric power generation facilities. We also discussed DENKA SEIKEN Co., Ltd. and its diagnostic reagents, which are expected to play an essential role as a growth driver under our new growth strategies.



Corporate briefing for individual investors

General Stockholder's Meeting

DENKA's annual General Stockholder's Meeting provides a valuable opportunity for engaging in direct communication with shareholders. Accordingly, we send out the notice of convocation for the General Stockholder's Meeting as early as possible to give shareholders enough time to examine the reports and items subject to voting. Such notice is also posted on our website. We try to schedule the meeting at the earliest possible date to ensure minimal overlap with similar meetings held by other companies. (June 21 in 2013 and June 20 in 2014)

At each meeting, we use narrated videos to supplement our explanations of the issues under discussion and maintain exhibition booths to showcase our operations.

Since the fiscal 2007 General Stockholder's Meeting, we have been using a voting system that allows shareholders to use electronic voting in addition to regular post. DENKA also joined the Electronic Voting Platform for institutional investors run by the Tokyo Stock Exchange. Voting results for each resolution are posted on our website after the conclusion of the meeting without delay.

WEB

Please also visit our website to see DENKA's fiscal 2013 consolidated financial statements posted on pages 22 to 23 of the web-based CSR Report 2014 references (PDF).
* The DENKA Group Guidelines and our CSR Procurement Guidelines are posted on page 3 of the web under CSR Report 2014 references (PDF).

We Are Striving to Create an Organizational Culture That Allows Every Employee to Work Vibrantly and Realize Their Full Potential.

Developing Comfortable Workplaces

1 Underlying Policy

We are pursuing the DENKA100 initiative in line with the belief that DENKA's mission is to help create a more affluent society through our principal business.

To realize this ideal, it is essential that every employee has a clear idea of their mission and role and maximizes their potential and capabilities. Accordingly, we aim to create an inclusive workplace that motivates employees and spurs them to pursue ambitious goals.

2 Revisions to the Personnel System

As a part of our DENKA100 human resource strategies, in fiscal 2012 we made extensive revisions to our personnel system. Specifically, seniority-based promotion was abolished and a system offering greater career opportunities with an emphasis on leadership and the drive to take on challenges was adopted. Accordingly, we are striving to ensure that employee evaluations accurately reflect their performance.

Previously, employees were locked into one of three job categories, namely, specialists, engineers and general staff; however, the new system allows employees to change their job category. We have also incorporated a program aimed at promoting engineers who proactively strive to acquire more advanced skills and techniques (the "Engineers' Skill Improvement Plan"). Furthermore, we introduced the in-house "Meister Certification System" for outstanding employees, encouraging them to serve as role models for their junior colleagues.

3 Work-Life Balance

Giving due consideration to the need to balance work and private life, we are promoting healthy working styles by eliminating excessive overtime and encouraging the full use of annual paid leave.

To reduce overtime work, we are streamlining day to day operations through such initiatives as GCP activities. Moreover, Wednesday is "No Overtime Day" for the Head Office and all branches and sales offices. Business units whose staff are found to working excessive overtime are given warning to improve.

In addition, annual refreshment leave (one day) is available to employees at any time, from the beginning of fiscal 2014 onward. At the same time, we have raised the number of days of annual paid leave granted to new recruits and employees who have served at the Company for fewer than four years, thereby facilitating the utilization of such leave. Other initiatives include upgrading childcare and nursing care leave plans and facilitating the use of such plans, as we recognize that employers' assistance to those who struggle with child rearing or nursing care issues ultimately helps to resolve the challenges confronting society.

Status of Work-Life Balance (non-consolidated basis)

	Fiscal 2011	Fiscal 2012	Fiscal 2013
Total working hours	1,913	1,928	1,925
Overtime hours	84	92	91
Average number of paid leave utilized	9.3	9.2	9.2
Ratio of annual paid leave utilized	50%	50%	49%
Number of employees who took childcare leave (Of which, male employees)	3 (0)	3 (0)	4 (0)
Number of employees who took nursing care leave	0	0	1
Number of employees who took volunteer activity leave	0	2	0

DENKA's Three-Year Action Plans in line with the national legislation to support raising children

(From April 1, 2014 onward)

- 1) Raise the average number of days of annual paid leave utilized per employee to 12 or greater
- 2) Reduce overall working hours by improving the efficiency of operations
- 3) Help young people enhance their understanding of working life and seek stable employment through the provision of internship programs and plant tours; assist college or university students who have grown up in vicinity of the Company's domestic plants in their pursuit of higher education through the DENKA Scholarship System
- 4) Provide educational support by hosting plant tours and experimental science classes

4 Mental Health Promotion Plan

Given the recent rise in the number of people who suffer mental illness, DENKA has designated addressing mental health issues as a critical management task. In addition to mental health seminars provided at each production site, in fiscal 2013, DENKA established the Mental Health Promotion Plan to launch comprehensive countermeasures.

The countermeasures include training focused on "self-care" and "group-care." In line with this plan, we have launched a support structure run by in-house staff while setting up a 24-hour helpline run by a third party. Furthermore, we formulated a reinstatement program for those who are on long-term leave due to mental health problems. In fiscal 2013, employees at Head Office, branches and sales offices took part in the aforementioned training. We will expand the scope of employees eligible for training.



Mental health training session for general staff

Number of Employees Who Participated in Mental Health Training in Fiscal 2013

Business Site	Number
Head Office (specialists)	316
Head Office (general staff)	94
Osaka Branch	21
Innovation Center	35
Total	466

5 Initiatives to Promote Diversity

DENKA recognizes that respecting the individuality of each person and allowing them to realize their full potential will, in turn, bolster its own growth and development. Accordingly, we are actively pursuing diversity promotion initiatives. For example, we have set a target of making female workers account for 20% of the new specialists recruited every year. As a result, 10, or 22% of the 45 specialists hired in fiscal 2014 were female.

We are also focusing on recruiting foreign students who have international perspectives and the potential to handle global business. Consequentially, in fiscal 2014 we welcomed two new graduates from China. Moreover, five university graduates from Singapore hired by DENKA Chemicals Holdings Asia Pacific Pte. Ltd. in fiscal 2013, are taking part in a two-year management training program in Japan. This program is the first initiative to nurture future executives among employees hired overseas. In this way, we are developing key human resources who will drive our global expansion.

6 Reemploying Retirees

Against the backdrop of the rapid graying of Japan's population, DENKA introduced a program to rehire retirees who have superior technological knowledge and skills. By enabling them to work even after mandatory retirement age, we encourage them to continue contributing to our business operations while passing on their know-how and expertise to younger employees. Reemployment options include both full-time and part-time contracts.

In response to the enforcement of the revised law pertaining to the employment of the elderly, in fiscal 2013 we began incrementally raising the age at which rehired employees are subject to the renewal or termination of their employment contracts. Simultaneously, we raised their wages to assist them with maintaining income levels until they reach pension age. From fiscal 2014, reemployment contracts allow each rehired employee to retain in full the paid leave days that they had been entitled to before mandatory retirement. Moreover, we established the "Career and Life Planning Seminar," targeting specialists who have reached the age of 55 with the aim of helping them better prepare for their lives after reaching 60. As such, efforts are now under way to create a welcoming environment for retirees who desire to work even after retirement age. Consequently, 88% of new retirees were reemployed in fiscal 2013.

Status of Employees (non-consolidated basis) and Diversity Data

	Fiscal 2011	Fiscal 2012	Fiscal 2013	
Number of employees	2,800	2,832	2,873	
Gender	Male	2,594	2,630	2,660
	Female	206	202	213
Employment status	Permanent	1,983	2,031	2,032
	Temporary	817	801	841
Average age	39.9	39.6	39.8	
Average years of service	18.1	17.8	18	
New recruits	108	122	103	
Specialists (hired from new graduates)	Male	37	38	34
	Female	5	3	11
Female managers	1	1	1	
Retiree reemployment rate	90	88	88	
Ratio of people with disabilities	2.21	2.10	2.24	
Resignees	36	35	30	
Number of people who resigned within three years after recruitment	11	14	4	

7 Employing People with Disabilities

We are creating a workplace in which people with disabilities can work with confidence and realize their full potential. The HR Department, which provides systematic support for employees with disabilities, is directly involved in selecting assignments for such employees and engages in consultation with their supervisors as needed. In fiscal 2013, the percentage of employees with disabilities stood at 2.24%, exceeding the statutory quota.

8 Initiatives with Labor Unions

Since fiscal 2011 onward, management and labor unions have held regular meetings aimed at comprehensively reviewing working conditions through broad discussions with an eye to the future. In addition, both sides co-sponsor events at Head Office and each business site as they work together to achieve the goals of the DENKA100 initiative.

Message from the General Manager

To realize the DENKA100 new growth strategies, it is essential that every employee practices a spirit of innovation and challenge in their daily operations. Therefore, we will facilitate an organizational culture that rewards those who take on challenges toward achieving Groupwide goals and targets assigned to each section. In doing so, we will strive to create a vibrant workplace in which employees take pride in their duties.



Terumitsu Nakano
General Manager, HR Dept.

To Maintain the Trust of Society, We Will Contribute to Local Communities While Helping the Upbringing of Future Generations.

Initiatives to Revitalize Community

Becoming a Naming Rights Partner for the Niigata Stadium

In November 2013, the signing ceremony for a basic agreement for the transfer of stadium naming rights was held at the Niigata Prefectural Office with the attendance of Mr. Hirohiko Izumida, the governor of Niigata Prefecture, Mr. Mitsugu Tamura, the president of ALBIREX NIIGATA, and Mr. Shinsuke Yoshitaka, the president of DENKA. Based on this agreement, the facility was redubbed the "DENKA BIG SWAN STADIUM" in January 2014.

At the ceremony, Mr. Izumida said, "We would be so happy if this move could help DENKA become a company loved by people all around the prefecture and an employer of choice for many talented people."

Also, Mr. Tamura expressed his willingness to assist DENKA in its proactive initiatives aimed at contributing to local communities. Mr. Yoshitaka, who expressed his deep gratitude for support by the prefecture's officials, residents

and other community members, declared his commitment to helping revitalize local communities even further.

DENKA BIG SWAN STADIUM (former Niigata Stadium)

Location: 67 Seigoro, Chuo-ku, Niigata City (within Niigata Prefectural Sports Park)
Site area: Approximately 480,000 m²
Capacity: Approximately 42,000 audiences
Built: March 2001
Contract term: Three years from January 2014



DENKA BIG SWAN STADIUM



The signing ceremony for the basic agreement

Experimental Science Classes and Other Initiatives to Support Local Communities

Facilitating Interest in Chemistry among Children

We proactively hold experimental science classes for children to provide them with hands-on experience of chemistry. We hope that, after attending such events, children will go on to share with their friends, parents and families the wonders and excitement of chemistry that they experienced at the classes. This is one way that we nurture interest in chemistry and gain people's confidence in our business operations.

Specifically, DENKA participates in the Summer Holiday Chemical Experiment Show for Children sponsored by the "Dream Chemistry 21"* committee. Moreover, each domestic plant and the Innovation Center host facility tours and other chemistry experiment shows to which they invite local children and students. These sites also provide on-demand lectures on chemistry at local elementary schools while taking part in community events that involve demonstrations of chemistry. In addition, the plants accept interns looking to gain hands-on vocational experience at production sites. Examples of these and other local initiatives are featured in the web-based CSR Report 2014 references.

While supporting the upbringing of next generations, DENKA staff in charge of these initiatives are often motivated even further when they see the unreserved expressions on children's faces of wonder and excitement at seeing what chemistry can do.

* A campaign launched in Japan in 1993 to facilitate people's understanding of chemistry and the role the chemical industry plays in society.



Chemistry class



Volunteer activity in Minami Sanriku-cho

Ongoing Social Contribution through Volunteer Initiatives, Scholarship Programs, etc.

With the aim of supporting the reconstruction of areas affected by the Great East Japan Earthquake, many DENKA employees have been participating in ongoing volunteer activities. As of July 2014, DENKA had dispatched a total of 341 employees on 42 occasions to restore agriculture, fishery and other local industries in such areas as Minami Sanriku-cho.

DENKA also helps college or university students who grew up in the vicinity of its domestic plants through the DENKA Scholarship System, which was established on the occasion of the Company's 90th anniversary to provide students with rent assistance.

In addition, each production and business site is engaged in various social contribution activities, participating in local festivals and other community events, taking part in blood donation campaigns, cleaning up roads and public spaces as well as draining ditches in the vicinity and maintaining hydrangea beds around their premises.

Third-Party Opinion



Tamio Yamaguchi
Representative of Junkan
Workers Club*

The Report Conveys DENKA's Commitment to Safety and Communication

Each year, as it prepares its CSR report, DENKA has invited me to give lectures on CSR and review their first draft. This year, I gave a lecture on human rights and disclosure of negative information, and then held a dialogue to share my comments on the first draft of this year's report. Among those who attended the lecture and dialogues were DENKA's staff in charge of preparing the CSR report, full-time Audit & Supervisory Board members, executive officers and heads of core departments. The sight of these enthusiastic attendees left me with a strong impression of their commitment to CSR and ongoing work to improve CSR reporting.

DENKA's responses to my comments fall into two categories—(i) feedback the Company decided to reflect in the 2014 edition and, (ii) feedback it plans to incorporate in the next or later editions. For example, the 2014 edition ended up covering such information as the number of occupational accidents in which workers at subcontractors suffered and the number of employees who resigned within three years after recruitment. Moreover, in response to comments I made regarding the previous 2013 edition, information on employees' working hours, the rate of annual paid leave utilized and the number of resignees were incorporated to provide quantitative labor-related indicators. I commend the Company's sincere approach to incorporating a third-party's suggestions in its activities and the content of information disclosure.

I would also like to compliment this report's well-organized structure. For example, sections featuring the operations of the four business divisions give a concise and balanced view of topics that readers may want to know about, such as executives' commitment, the current market environment and business strategies as well as social issues that the Company is tackling, expected technological innovation and solutions DENKA has created. Also, the site reports feature important reporting matters, including safety, environmental and communication initiatives undertaken at each business site. This can be considered one effective approach to preparing a good CSR report.

The report has also impressed me with DENKA's commitment to maintaining safety and enhancing communication.

First, the *DENKA Group CSR Report 2014* gives detailed information on two major accidents that occurred during fiscal 2013, just as the Company has declared it would in the previous edition. The descriptions of these accidents are well organized and cover matters that may be of concern to readers. Furthermore, president's message begins by stating his commitment to safe operations, a sentiment echoed elsewhere by a senior managing executive officer who has positioned safety as the essential part of continued business activities. These statements cause me to have great expectations for safety initiatives that DENKA will undertake going forward. That said, DENKA also has to face the reality of its accident frequency rates exceeding the average for JCI members for the past several years. The Company is also having difficulty reducing the number of accidents its subcontractors' workers suffer. In light of these factors, I would like to remind DENKA executives that it will require considerable effort to eliminate such accidents.

Second, the report highlights the Company's initiatives to enhance communication at all levels of safety activities, labor relations, marketing activities, human resource development, local contributions and investor relations. Enhancing communication involves reporting, feedback, dialogue, and engagement. I expect DENKA to examine the progress of its initiatives in terms of the above stages and use these initiatives to further promote corporate reforms.

In addition, I would offer three suggestions aimed at enhancing the quality of the Company's CSR reporting and activities in step with DENKA's global expansion.

Firstly, greater emphasis must be put on human rights. The *DENKA Group CSR Report 2014* hardly mentions this issue, except for at the beginning of the Company's CSR Procurement Policies. It has been reported through various surveys that awareness of human rights protection is relatively lagging among Japanese companies. On the other hand, "soft law" initiatives addressing human rights, such as ISO 26000 and United Nations' Guiding Principles on Business and Human Rights, have been announced one after another. Businesses not fully aware of the growing importance being placed on human rights protection run the risk of violating human rights in the course of business activities. Therefore, I recommend DENKA to position human rights as a core CSR topic and to examine these "soft laws" when formulating policies and action plans.

Secondly, a global human resource strategy should be established. The DENKA100 new growth strategies place emphasis on localizing production. For this, it is indispensable to draw up an overarching strategy aimed at managing and nurturing human resources throughout the Group. I also ask DENKA to feature the voices of overseas employees who lead the Company's efforts to put down roots overseas.

Thirdly, I would like to see reporting topics selected in accordance with their materiality.** Although this report addresses the majority of items set forth in GRI guidelines, and referring to guidelines is helpful when identifying areas in need of improvement, insisting on comprehensiveness over all goes against the global trend. It is not easy to select topics by materiality, but I strongly recommend DENKA to do so by referring to the G4 Sustainability Reporting Guidelines, which will help determine material issues in a more standardized manner.

* An NPO dedicated to fostering the harmonious coexistence of society and natural ecosystems through research conducted from a global perspective. It studies and spearheads local community efforts for creating a recycling-oriented society joining citizens, businesses and governments, presenting recommendations through CSR workshops and other means.
URL: <http://www.nord-ise.com/junkan/> (Japanese only)

** A concept to assess the relevance of information that organizations could include in their reports. An organization's activity is deemed material if such activity makes a significant impact on the economy, the environment, society or stakeholders' decision making, whether such impact is negative or positive.

Editorial Afterword

Noriyuki Shimizu General Manager, CSR & Corporate Communications Dept.

First of all, we would like to express our gratitude to the readers of the *DENKA Group CSR Report 2014*. In the printed brochure of this 2014 edition, we highlight our countermeasures to prevent the recurrence of the two major accidents that occurred during fiscal 2013, top executives' commitment to safety and Companywide initiatives to create a safety-oriented corporate culture. The subsequent content of the report is structured around the six pillars of the DENKA100 initiative aimed at achieving sustainable growth. In particular, we present explanations by division heads about initiatives taken or planned to promote our growth strategies, which were newly established in fiscal 2013. Moreover, we have added data on the environmental performance of Group members while enriching the content of quantitative information related to our initiatives for creating an inclusive workplace.

We would also like to thank Mr. Yamaguchi, who has provided us with a number of valuable suggestions that helped improve the report through two dialogues and the preparation of the third-party opinion. As we aspire to further enhance our CSR activities and information disclosure going forward, we would like to ask our readers to give their frank opinions and comments. Listening sincerely to our stakeholders, we will continue our efforts to contribute to the sustainable development of society while fulfilling our corporate social responsibility.