

The Daicel Group CSR Report 2014



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The Best Solution for You



Principal International Affiliates of the Daicel Group

Germany

- 1 Daicel (Europa) GmbH**
Purchase and sales of products in the European market
- Topas Advanced Polymers GmbH**
Production, sales and research on cyclic olefin copolymer
- Polyplastics Europe GmbH**
Sales of engineering plastics

Poland

- 2 Daicel Safety Systems Europe Sp. z o. o.**
Manufacture and sales of automobile airbag inflators

France

- 3 Chiral Technologies Europe S.A.S.**
Sales of chiral columns and technical services for chiral businesses

India

- 4 Polyplastics Marketing (India) Private Ltd.**
Sales of engineering plastic
- 5 Daicel Chiral Technologies (India) Private Ltd.**
Sales of chiral columns and technical services for chiral businesses

Singapore

- 6 Daicel (Asia) Pte. Ltd.**
Purchase and sales of products in Asian markets
- Polyplastics Asia Pacific Singapore Pte. Ltd.**
Sales of engineering plastics

Malaysia

- 7 Polyplastics Asia Pacific Sdn. Bhd.**
Manufacture and sales of engineering plastics

Thailand

- 8 Daicel Safety Systems (Thailand) Co., Ltd.**
Manufacture and sales of automobile airbag inflators
- Polyplastics Marketing (T) Ltd.**
Sales of engineering plastics
- Daicel Polymer (Thailand) Co., Ltd.**
Sales of ABS, ABS alloys and other products
- Special Devices (Thailand) Co., Ltd.**
Manufacture and sales of automobile airbag initiators and micro gas generators

South Korea

- 9 Polyplastics Korea Ltd.**
Sales of engineering plastics
- Daicel Safety Systems Korea, Inc.**
Manufacture and sales of automobile airbag inflators

Taiwan

- 10 Polyplastics Taiwan Co., Ltd.**
Manufacture and sales of engineering plastics

Hong Kong

- 11 Daicel Polymer (Hong Kong) Ltd.**
Sales of ABS, ABS alloys and other products
- Polyplastics (China) Ltd.**
Sales of engineering plastics

Guangxi, China

- 12 Daicel Nanning Food Ingredients Co., Ltd.**
Manufacture and sales of sorbic acid and potassium sorbate

Zhejiang, China

- 13 Ningbo Da-An Chemical Industries Co., Ltd.**
Manufacture and sales of cellulose acetate and acetic anhydride

Shanghai, China

- 14 Daicel (China) Investment Co., Ltd.**
Hub of the manufacture and sales organization in China
- Shanghai Daicel Polymers, Ltd.**
Manufacture and sales of ABS, ABS alloys, etc.
- Daicel Trading (Shanghai) Ltd.**
Purchase and sales of products in the Chinese market

Polyplastics Trading (Shanghai) Ltd.

- Sales of engineering plastics
- Polyplastics (Shanghai) Ltd.**
Sales of engineering plastics
- Daicel Chiral Technologies (China) Co., Ltd.**
Sales of chiral columns and technical services for chiral businesses
- Shanghai Da-shen Cellulose Plastics Co., Ltd.**
Manufacture and sales of celluloid and acetate plastic sheet

Jiangsu Province, China

- 15 Daicel Safety Systems (Jiangsu) Co., Ltd.**
Manufacture and sales of automobile airbag inflators
- PTM Engineering Plastics (Nantong) Co., Ltd.**
Manufacture and sales of engineering plastics

Shaanxi Province, China

- 16 Xi'an Huida Chemical Industries Co., Ltd.**
Manufacture and sales of acetate tow for cigarette filters

Kentucky, U.S.A.

- 17 Daicel Safety Systems America, LLC**
Manufacture and sales of automobile airbag inflators
- Topas Advanced Polymers, Inc.**
Sales of cyclic olefin copolymer

Pennsylvania, U.S.A.

- 18 Chiral Technologies, Inc.**
Sales of chiral columns and technical services for chiral businesses

New Jersey, U.S.A.

- 19 Daicel (U.S.A.), Inc.**
Purchase and sales of products in the U.S. market

Michigan, U.S.A.

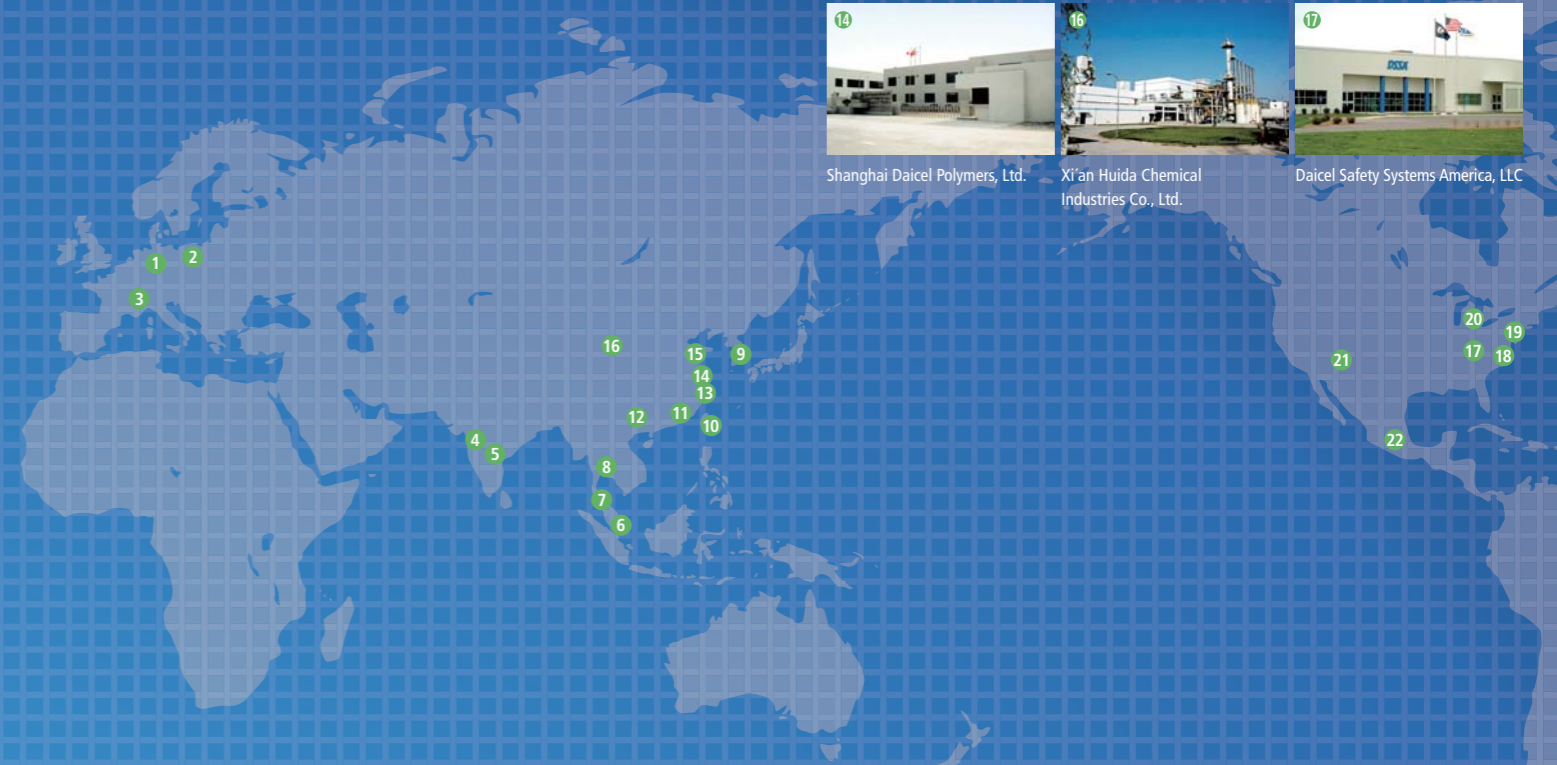
- 20 Polyplastics USA, Inc.**
Sales of engineering plastics

Arizona, U.S.A.

- 21 Special Devices, Inc.**
Manufacture and sales of automobile airbag initiators and micro gas generators

Mexico

- 22 Polyplastics Marketing Mexico, S.A. de C.V.**
Sales of engineering plastic



Our Global Network

The Daicel Group aims to deliver the best solutions to the global market



Osaka Head Office Tokyo Head Office



Aboshi Plant



Kanzaki Plant



Hirohata Plant



Harima Plant



Central Research Center



Arai Plant



Ohtake Plant



Polyplastics Co., Ltd./Fuji Plant

Principal Domestic Locations

- 1 Osaka Head Office:** Mainichi Intecio, 4-5, Umeda 3-chome, Kita-ku, Osaka 530-0001
- 2 Tokyo Head Office:** JR Shinagawa East Bldg., 2-18-1, Konan, Minato-ku, Tokyo 108-8230
- 3 Himeji Production Sector/Aboshi Plant:** 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281
Principal products: Acetic acid, Cellulose acetate, Acetate tow, CMC, HEC
- 4 Himeji Production Sector/Hirohata Plant:** 12, Fuji-cho, Hirohata-ku, Himeji-shi, Hyogo 671-1123
Principal products: PS sheet, SAN resins
- 5 Harima Plant:** 805, Umaba, Ibogawa-cho, Tatsuno-shi, Hyogo 671-1681
Principal products: Automobile airbag inflators, Pilot emergency-escape systems, Rocket propellants, Gunpowder
- 6 Central Research Center:** 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1283
- 7 Himeji Technology Head Office:** 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281
- 8 Nagoya Sales Office:** Meiffice-Meieki Bldg., 26-25, Meieki 4-chome, Nakamura-ku, Nagoya-shi, Aichi 450-0002
- 9 Kanzaki Plant:** 12-1, Kanzaki-cho, Amagasaki-shi, Hyogo 661-0964
Principal products: Packaging films, Adhesive films
- 10 Arai Plant:** 1-1, Shinko-cho, Myoko-shi, Niigata 944-8550
Principal products: Ketene derivatives, Active ingredients and Intermediates for pharmaceuticals and agrochemicals, Chiral columns, Synthetic resin emulsions
- 11 Ohtake Plant:** 1-4, Higashisakae 2-chome, Otake-shi, Hiroshima 739-0695
Principal products: Ethyl acetate, Butyl acetate, 1,3-butylene glycol, Caprolactone, Cellulose acetate, Acetate tow
- 12 H.R. Training Center:** 14-1, Kouto 3-chome, Kamigori-cho, Akou-gun, Hyogo 678-1205
- 13 Polyplastics Co., Ltd./Fuji Plant:** 973, Miyajima, Fuji-shi, Shizuoka 416-8533
Principal products: POM, PBT, LCP

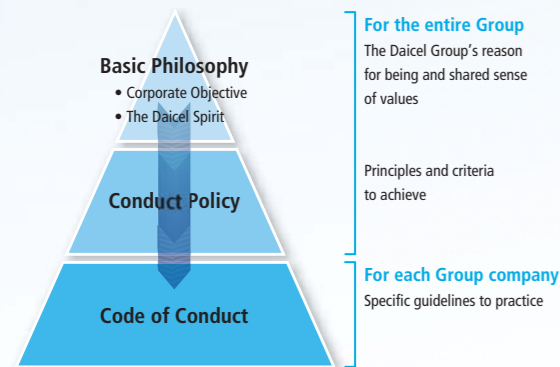
The Daicel Group's CSR

Corporate Objective

We contribute to a better quality of life by developing and manufacturing products that society needs and values.

The Daicel Group's CSR

Basic Philosophy, Conduct Policy and Code of Conduct



The Daicel Spirit

- Integrity and Ceaseless Efforts
 - Focus on Creation of New Value (Monozukuri*)
 - Respect for Individuality and Achievements

*"Monozukuri": Our focus on "Monozukuri" is unshakable. Although the literal meaning of the Japanese word "Monozukuri" is "making things," for our purpose the meaning of the term has been broadened to encompass the creation of new value in all corporate activities, including R&D, sales and marketing and support services.



Conduct Policy

We, the Daicel Group, have established the following Conduct Policy in order to realize our Basic Philosophy. Every member of the Daicel Group shall fully understand and voluntarily consider this Conduct Policy and shall put it into practice in a tangible way through their daily activities.

- We shall not only comply with all laws and regulations but also act with high ethical standards and sound judgment.
- We shall contribute to the development of society as good corporate citizens.
- We shall offer safe, high-quality products and services that satisfy and gain the trust of our customers.
- We shall contribute to the development of local communities by complying with international rules and each country's laws and regulations and by respecting local cultures and customs.
- We shall willingly and justly disclose reliable corporate information.
- We shall conduct honest trade in accordance with the basic principles of fair and free competition.
- We shall work positively to conserve the natural environment and to ensure safety.
- We shall properly manage corporate assets and information.
- We shall respect the diversity, personality and individuality of every member of the Daicel Group and shall maintain a healthy and comfortable work environment that is free from discrimination and harassment.

[The Daicel Group Conduct Policy: www.daicel.com/en/profile/policy.html](http://www.daicel.com/en/profile/policy.html)

[The Daicel Code of Conduct: www.daicel.com/en/profile/standard.html](http://www.daicel.com/en/profile/standard.html)

Basic Purchasing Policy

The Raw Material Purchasing Center in charge of the purchase of raw materials and the Engineering Center Procurement Group responsible for the purchase of machinery have worked together to formulate the Basic Purchasing Policy. This Basic Purchasing Policy helps the suppliers who provide us with raw materials, equipment and services in the supply chain to better understand Daicel's approach to purchasing, while encouraging them to cooperate with us in fulfilling our CSR throughout our supply chain.

Basic Purchasing Policy

In keeping with courses of action intended to implement the Daicel Group's Basic Philosophy, we shall comply with the following Basic Purchasing Policy when purchasing from suppliers.

Fair & Rational Transactions

- We provide fair participation opportunities for transactions.
- Our overall considerations are matters of quality, price, stability of supply, technological development capability, environmental consideration and efforts to ensure safety. We consider these aspects in a comprehensive manner based on their economic rationality.
- We conduct our purchasing activities in an open manner with no regard for previous dealings or for whether the provider is located inside or outside Japan.

Legal Compliance, Confidentiality and Information Disclosure

- Our business operations shall be based on legal compliance as well as corporate ethics.
- We strictly protect confidential information gained through businesses, and we never infringe third parties' intellectual property rights.

Establishing a Relationship of Trust

- We strive to establish better partnerships with our suppliers by pursuing mutual economic benefit.

Initiatives based on CSR perspectives

- We promote our CSR Initiatives with the aim of enhancing corporate value for both our suppliers and us.

<http://www.daicel.com/purchase/index.html>

Outline of the Daicel Group

The Daicel Group includes Daicel Corporation and 75 Group companies. The Company's primary business is the manufacture and sales of cellulosic derivatives, organic chemicals, plastics, pyrotechnic devices and other products. The business segments of Daicel Corporation, its subsidiaries and affiliated companies are shown below.

Daicel Corporation

(as of March 31, 2014, graphs on a consolidated basis)

Incorporated: September 8, 1919

Paid-in capital: ¥36,275,440,089

Number of shares issued: 364,942,682

List of Products and Group Companies by Segment

Cellulosic Derivatives

Principal Products: Cellulose acetate, acetate tow for cigarette filters and CMC

Principal Group Companies: Domestic: Daicel Corporation / Daicel FineChem Ltd.

Overseas: Xi'an Huida Chemical Industries Co., Ltd. / Ningbo Da-An Chemical Industries Co., Ltd.

Organic Chemicals

Principal Products: Acetic acid and its derivatives, caprolactone derivatives, epoxy compounds, photoresist materials for semiconductors and chiral columns

Principal Group Companies: Domestic: Daicel Corporation / Kyodo Sakusan Co., Ltd. / Dainichi Chemical Corp.

Overseas: Chiral Technologies, Inc. / Chiral Technologies Europe S.A.S. /

Daicel Chiral Technologies (India) Private Ltd. / Daicel Chiral Technologies (China) Co., Ltd. / Daicel Nanning Food Ingredients Co., Ltd.

Plastics

Principal Products: POM, PBT resins, ABS resins, engineering plastic alloys, plastic molded products, functional coating films

Principal Group Companies: Domestic: Polyplastics Co., Ltd. / Daicel Polymer Ltd. / Daicel Pack Systems, Ltd. /

Daicel Value Coating Ltd. / Daicel-Evonik Ltd. / DM Novafoam Ltd.

Overseas: Shanghai Daicel Polymers, Ltd. / Topas Advanced Polymers GmbH

Pyrotechnic Devices

Principal Products: Automobile airbag inflators, emergency-escape systems for aircraft crew and gunpowder

Principal Group Companies: Domestic: Daicel Corporation / Daicel Safety Systems Inc. / Japan Shotshell Ltd.

Overseas: Daicel Safety Systems America, LLC / Daicel Safety Systems (Thailand) Co., Ltd., Daicel Safety Systems Europe Sp. z o. o. / Daicel Safety Systems (Jiangsu) Co., Ltd. / Special Devices, Inc.

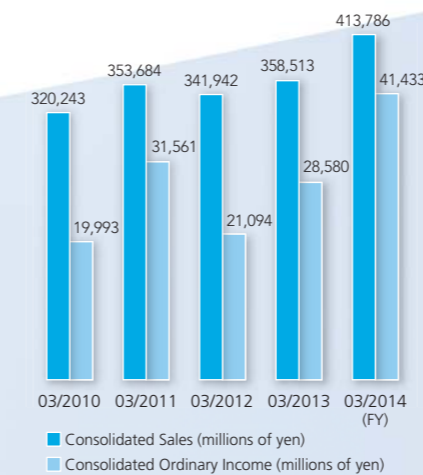
Others

Principal Products: Membrane separation modules for water treatment, transportation & storage services

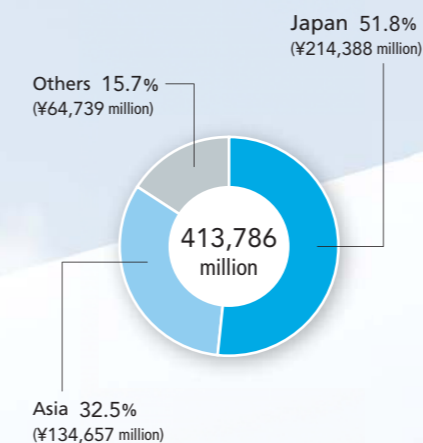
Principal Group Companies: Domestic: Daicel Corporation / Daicel Membrane-Systems Ltd. / Daicel Aboshi Sangyo Co., Ltd. / Daicel FineChem Ltd. / Daicel Logistics Service Co., Ltd.

Overseas: Daicel (China) Investment Co., Ltd.

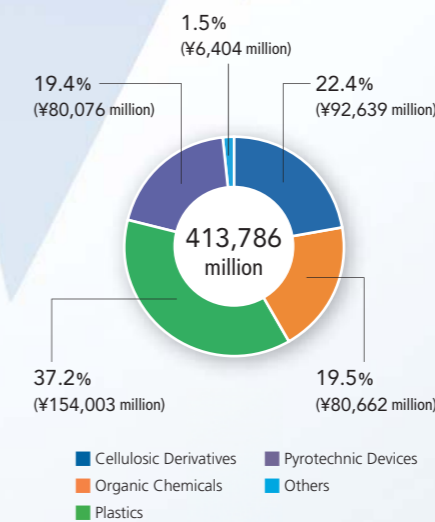
Sales and Ordinary Income



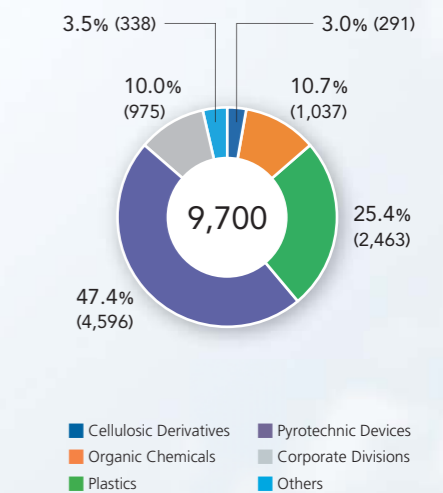
Sales by Region



Sales by Segment



Number of Employees by Segment (excludes part-time employees)



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Special Feature

Daicel's Energy-Saving Initiatives

—Realizing Substantial Energy Savings from Three Angles—



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The Daicel Group CSR Report 2014

Daicel Corporation has published an annual Environmental and Safety Report since fiscal 2000 (year ended March 31, 2001). From fiscal 2007 (year ended March 31, 2008), the scope of reporting was expanded to include social activities, and the report title was changed accordingly to Environmental, Safety and Social Report. From fiscal 2010 (year ended March 31, 2011), emphasis was placed on enhancing the report's content and information relating to the Company's efforts to fulfill its corporate social responsibility. Accordingly, we adopted the title, The Daicel Group CSR Report, and have focused our attention on improving reader-friendliness and understandability while engaging in proactive disclosure.

This CSR Report 2014 is primarily a compilation of the Daicel Group's activities in the areas of business, environmental preservation and safety, social contribution, and human resource development during fiscal 2013 (from April 2013 to March 2014).

Also, in order to ensure reliability, Daicel has submitted its reports to the Responsible Care Verification Center of the Japan Chemical Industry Association (JCIA) for third-party verification annually since 2004.

Organizations within Scope of Reporting

The scope of reporting includes Daicel Corporation and Group companies inside and outside Japan. In this report, "Daicel" refers to Daicel Corporation.

Responsible Care Initiatives

In this section, "the Company", "other domestic Group companies" and "overseas Group companies" refer to the companies listed under the scope of performance data compiled for environmental and occupational safety (<http://www.daicel.com/en/csr/library.html>).

Overseas Group companies are not included in data for Environmental Management to Prevent Air and Water Pollution (distribution safety, process safety and disaster prevention, and environmental preservation) and Other Chemical and Product Safety Initiatives (chemical and product safety).

Other Activities Unrelated to Responsible Care

In this section, "the Company" refers to Daicel Corporation, and "the Group" and "the Daicel Group" refer to Daicel Corporation and its Group companies.

Here, Group companies refers to the Group companies listed as Organizations within Scope of Reporting in the CSR Report 2014 (<http://www.daicel.com/en/csr/library.html>).

More detailed information about Responsible Care Initiatives is available on Daicel's website. Topics covered on our website are as follows:

- Scope of Data Collection for Environmental and Occupational Safety Performance
- The Daicel Group's Responsible Care Initiatives: Targets and Results
- Total Environmental, Health and Safety Assessment System
- Environmental Management Systems
- Environmental Accounting
- Environmental Preservation
 - Environmental Management to Prevent Air and Water Pollution
 - Reduction and Recycling of Industrial Waste
 - Environmental Impact Data
- Chemical Substance Management
 - Emission and Transfer of PRTR substances
 - Other Chemical and Product Safety Initiatives
- Organizations within Scope of Reporting: Scope of Group Companies

<http://www.daicel.com/csr/library.html>

Interview with the President



Daicel contributes to the world by developing new materials while engaging in proper business practices for safety, quality and compliance.

Misao Fudaba
President and CEO, Daicel Corporation

Review of the Previous Medium-Term Plan

Q1

The Daicel Group has finished the final year of the "3D-I" medium-term plan, its first step toward becoming a company that proudly delivers the best solutions in the world, as a part of its long-term Grand Vision 2020. Please discuss the accomplishments made over the past three years.

Business Environment and Numerical Targets

The "3D-I" medium-term plan was drawn up and announced in February 2011, three years ago. Soon thereafter, there was a series of massive natural disasters including the Great East Japan Earthquake and flooding in Thailand that summer. Many precious lives were lost, and supply chains were disrupted at manufacturers. As we struggled to overcome these calamities, Daicel could not avoid a decline in profits in the fiscal year ended March 2012, the first year of the "3D-I" medium-term plan. In the second year of the plan, the fiscal year ended March 2013, tough business conditions led to a rise in costs and weaker demand for products made by the Daicel Group, owing in part to the sovereign debt crisis in Europe, high prices for key inputs such as methanol and crude oil, a boycott of Japanese-made products in China, and strong yen appreciation

to the ¥70 level against the U.S. dollar. In the third year of the plan, the fiscal year ended March 2014, the strong yen corrected, leading to an improvement in export conditions for the Daicel Group and its customers in Japan. Although the domestic economy showed signs of a moderate recovery, costs increased due to a rise in prices for methanol and other raw materials. With setbacks from these extremely challenging business conditions, the Company's performance is only now being restored to where it was at the start of the "3D-I" medium-term plan.

Breakdown by Segment

In the Cellulosic Derivatives Segment, sales of acetate tow for cigarette filters trended in line with our forecasts against a backdrop of stable demand worldwide. With the aim of increasing handling volume, Daicel



has been advancing plans to expand its own production capacity as well as handing volume from the joint venture established with Mitsubishi Rayon Co., Ltd. Also we are planning to increase capacity at another joint venture in China. Daicel has made steady strides in this business, building solid, close long-term relationships with key customers. In triacetyl cellulose (TAC) used in film for LCDs, industrywide conditions have been recovering with growth in terms of both volume and the size of LCD panels, after a period of weak demand for LCD TVs and changes in the demand structure from PC displays to smartphone and tablet displays. However, sales in the Company's TAC business as raw material of films have been significantly lower than targets, owing to the trend toward thinner films and competition from alternative materials.

Overall performance in the Cellulosic Derivatives Segment was better than we had expected, reflecting firm demand for acetate tow for cigarette filters, most of which is exported.

The Organic Chemicals Segment has struggled considerably over the past three years, as have similar businesses at other petrochemical companies, owing to the poor business conditions described above and the emergence of lower-priced overseas products. Naturally, management has taken steps to shore up the business, by increasing production capacity for general-purpose solvents, building test manufacturing facilities for functional chemicals, and expanding capacity at its

chiral separation business* in China. Despite these efforts, these past three years have served only to highlight the challenges faced in the segment.

In the Plastics Segment, core subsidiary Polyplastics Co., Ltd. executed a large-scale capital investment plan in Malaysia, where it now has the largest supply capacity in the world for polyacetal (POM) used in automotive parts, CA equipment and electronic parts. It also expanded capacity for liquid crystal polymers (LCP). Meanwhile, in Asia, Europe and the U.S., Polyplastics Co., Ltd. also expanded its sales bases, thereby globally extending the reach of its developed business, which generates profits on value-added services instead of simply selling products produced in Japan. Even though the business environment is tough with rivals also expanding production, Polyplastics Co., Ltd. has been performing quite well.

At other synthetic resin companies, Daicel Polymer Ltd. worked to expand business overseas, especially in Southeast Asia, while Daicel formed a joint venture with Mitsui Chemicals, Inc. in the foam plastics business in Japan.

The Pyrotechnic Devices Segment struggled under severe business conditions while Japanese automakers were greatly affected by the earthquake in Japan and flooding in Thailand, but sales volume started to steadily recover in 2013. Meanwhile, Daicel worked to cut production costs and introduced reduced-cost models of its products in order to achieve its targets. In April 2013, Daicel acquired Special Devices, Inc. (SDI), a company that makes initiators, a key component of inflators. We expect to generate synergies with SDI in production, procurement, R&D and sales through its global sales channels.

As identified above, each segment was subject to challenging business conditions, but we took the steps necessary to stage a recovery in earnings, as evident in the posting of record-high profits in the fiscal year ended March 2014, thanks in part to improvement in foreign currency exchange rates. However, the fact that we were unable to achieve the targets of our medium-term plan is being taken seriously by management.

* Our business that sells columns for the separation of chiral compounds used in pharmaceuticals and services for separating compounds.

fiercely contested. Management has set in motion strategies for each of these fields that internal companies and corporate divisions will pursue in creating

new businesses.

New materials that have already reached market include LED and OLED encapsulants, compounds for camera lenses and highly functional films for touch panels in the electronics field, as well as pre-mixture excipients for orally disintegrating tablets (see page 20) and EQUOL (anti-aging material derived from soybeans) in the medical and healthcare field. In the energy and environment field, the seedlings of new businesses

have emerged in visible light response-type titanium oxide photocatalysts and ultra-dispersed diamonds, which will require more time to commercialize.

However, full commercialization remains difficult at this stage of development. Commercialization is only possible if we can quickly build out an integrated business infrastructure, including markets and suppliers. This is where we have struggled for the past three years.

■ New Medium-Term Plan

Q3

Please explain the highlights of the new "3D-II" medium-term plan, covering the three-year period from the fiscal year ending March 2015 to the fiscal year ending March 2017 (see page 8). Also, please describe the steps taken to address issues that arose in the "3D-I" medium-term plan.

Under the "3D-II" medium-term plan, we believe it is crucial to "challenge" and "consider deeply" to nurture the new value that began to bud under the "3D-I" plan, so that these businesses can truly blossom. These concepts are not only for new businesses, but also for the development of new applications and markets for our existing products, as well as the provision of new solutions.

While engaging in business, it is essential to thoroughly understand the needs of our customers and markets, analyze the operations of our competitors, and identify our own strengths and weaknesses. Once this is done, we can reinforce partnerships and seek M&A to offset any weaknesses we have. We believe this is necessary to reach our desired outcomes and accelerate the pace of commercialization.

In new business fields in particular, Daicel has modified its organization in a bid to accelerate efforts based on the results of the "3D-I" medium-term plan.

Since introducing an internal company system, each internal company has been in charge of their own production, sales, and research functions, while corporate divisions were responsible for basic R&D and Companywide support functions. However, this arrangement gave rise to new issues, such as how to handle business fields that straddle multiple internal companies and how to link individual companies to corporate divisions. To address these issues, the organization was reorganized to unify efforts from the initial stages of development. In research fields tasked with developing new products, Daicel strengthened the structure for managing the different stages of development across the Company, including at internal

companies, under the supervision of the Central Research Center. Through the Production Technology Center, Daicel also took steps to quickly commercialize new business projects, developed processes for mass production, and looked into engineering for competitiveness, in addition to initiatives to bolster the competitiveness of existing businesses. The Company also established the New Business Planning center to examine and secure the necessary platforms for quickly launching new businesses from a planning and marketing perspective.

As a result, the corporate divisions that mainly played a supportive role are transforming into units that more aggressively promote business activities, and the entire Company is now able to better coordinate operations in existing business fields as well as new business fields.



Q2

Please describe the outcome and issues encountered in new business creation.

Daicel targets electronics, energy and environment, and medical and healthcare as new business fields. These fields are growth areas globally, but they are also

Q4

The final fiscal year of the new plan targets net sales of ¥500 billion and operating income of ¥50 billion, for an operating margin of 10%. How were these targets set?

These numerical targets were determined based on the operating income needed for the current scale of our operations. R&D spending and capital investment are required to sustain growth into the future. We believe at least ¥50 billion in operating income is needed to steadily increase the dividend payout ratio while securing sufficient funds for R&D and capital investment. On this basis and assuming an operating margin of 10%, we arrived at a net sales target of ¥500 billion.

In meetings about setting long-term goals for the Company, we discussed the feasibility of a net sales

target of ¥1 trillion, for example, but this target did not align with our vision of becoming a company that delivers the best solutions. For this reason, management has not set specific targets for its long-term goals. Even so in formulating the current medium-term plan, we had internal companies and Group companies set their own targets, and tallying these targets instead of current profit levels brought us close to the profit target we have in mind. For the time being, our current medium-term plan calls for net sales of ¥500 billion and operating income of ¥50 billion.

Q5

What measures are in store for reducing costs and enhancing Daicel's production foundation as a manufacturer?

Safe operations, product safety and quality assurance are the most important fundamentals as a manufacturer, and these will never change. On this basis, we plan to create a more robust production foundation by sustaining and advancing initiatives in "Production Innovations the Daicel Way," process innovations and business process innovations.

Under the internal company structure, Daicel has made progress in production and process innovations. For themes that did not lead to major cost reductions at the individual business level, we promoted their implementation across internal companies and plants, and these efforts have identified themes and technologies that should bring substantial benefits. As one

example, we took on the challenge of minimizing energy consumption through control systems that optimize operations across plants, based on a framework of production innovations that have allowed us to build more intelligent plants. We are introducing prototype distillation process technologies, such as vapor recovery compressor (VRC) and Petlyuk technologies (see page 18), on a trial basis. These technologies have never

been deployed on such a large scale at other chemicals plants. If the results are encouraging, we aim to reduce costs by deploying the technologies Companywide.

To train the personnel that will drive the introduction of these new technologies, Daicel plans to bolster training of not only workers at production sites, but also management through a framework involving the Operation Training Center.

■ Responsible Care and Corporate Ethics

Q6

In last year's interview, you said "fostering a culture of safety within the Company is a fundamental mission of management." Please describe the measures implemented to date and your thoughts on the importance of fostering a culture of safety within the Company on a daily basis.

Fostering a culture of safety is extremely important, and I have said that safety is our first priority at every opportunity, such as in internal communications and at year-end briefings, by stressing that safety and quality are the foundations of manufacturing. I have repeatedly conveyed that safety is of the utmost importance as a going concern. We have called upon our employees to observe the following:

1. "Quality people" "quality methods" "quality facilities" and "quality materials" are essential for performing quality "Monozukuri". Let's thus persevere with our "quality education" "quality standardization" "quality design" and "quality choices", and continue to adhere to quality "Monozukuri" with strong determination.

2. Preventing trouble before it happens is the best measure, but it is important to speak up with courage when noticing something, without overlooking small changes or abnormalities. Be in close contact with sites, reality and actual things, and practice "visualization" of abnormalities, "vocalization" about anything you notice, and "openness" by listening to the opinions of others.

3. It is vital to continually ask ourselves: Has there been any omission? Has there been any oversight? With thorough "Appropriate change management", "Appropriate risk assumption and avoidance" and "Appropriate training", let's resolve risks, one by one. We encourage managers in each business unit to discuss specific ways of ensuring safety and quality in the workplace.

Q7

Three years have passed since the Great East Japan Earthquake. What measures has the Daicel Group taken to handle a large-scale natural disaster?

Daicel has measures in place to deal with the risk of an earthquake, tsunami or ground liquefaction, based on damage projections from a massive earthquake that the national government and local governments have released. More specifically, Daicel has (1) evaluated and reinforced the seismic resistance of its facilities, examined the risk of damage from a tsunami and evaluated the risk of ground liquefaction; (2) introduced an emergency earthquake alert system, operates a system for ascertaining the safety of employees and calling for

emergency assistance, and installed satellite telephones in all of its plants; and (3) reviewed evacuation plans for a large-scale disaster, and stocked emergency food and medical supplies (see page 35).

With regard to business continuity planning (BCP), Daicel has put in place sufficient measures at each of its plants. This year, Daicel is taking BCP one step further for a number of key products, and will broaden the scope of BCP for these products to its entire supply chain, from suppliers to customers, in the event of an emergency.

Outline of New "3D-II" Medium-Term Plan

1. Management Targets for Fiscal 2016

- (1) Consolidated targets for the fiscal year ending March 31, 2017
Net sales: ¥500 billion
Operating income: ¥50 billion
- (2) Accelerate New Business Creation
Long-term target: Create five business units with sales of ¥10 billion each

Key Performance Targets

Operating margin (ROS): 10% or higher
Return on equity (ROE): 10% or higher

2. Basic Strategies

Daicel aims to achieve its management targets by executing the following seven basic strategies that remain in effect from the previous "3D-I" medium-term plan.

- Development of new businesses
- Enhancement of core businesses
- Development and enhancement of businesses from a global perspective
- Increased cost-competitiveness
- Enhanced cooperation with business partners
- Pursuit of M&A from a strategic perspective
- Enhancement of business foundations

Daicel also implements measures based on the following five important themes, on top of the most important fundamentals of manufacturing: safe operations, product safety and quality assurance.

- Further growth in core businesses
- Development of new businesses
- Development and enhancement of businesses from a global perspective
- Enhancement of production foundations
- Enhancement of capabilities of corporate divisions

Q8

What aspects of corporate ethics are a particular focus at Daicel?

In this fiscal year, just as the previous year, we have again emphasized contributing to society by doing the right thing, and earning a profit by doing the right thing. We will continue to drive these ethical standards into the core of our being. The hard part is figuring out how to maintain awareness of corporate ethics

among all our employees. Promoting corporate ethics is difficult unless it can be given a concrete shape through real examples every year. While making and following rules is important, we need to get people to think “WHY” and take the appropriate course of action.

Q9

What initiatives are being taken to foster personnel with global perspectives?

The Daicel Group has about 12,000 employees.* Roughly half, or 6,000 employees, are located overseas. Only a decade ago, in 2004, just 22% of our employees were overseas. We have made significant progress on globalization with our employees, and this trend is more than likely to continue. A description of the Daicel Group would not be complete without its employees overseas. However, being overseas does not mean something is fundamentally different. Every employee is a proud member of the Daicel Group, and holds the Daicel Spirit dear in their hearts. We all exist to help improve the quality of people’s lifestyles around the world.

However, our personnel policies did not fully take into account overseas employees, so we updated the Daicel Group Personnel Policy in May 2013. We believe that people are the secret to success, a belief that is shared among all employees that work for the Daicel Group, and this belief is the underpinning of our personnel policies (see page 22).

* Number of employees as of March 31, 2014, including non-regular employees, at Daicel and Group companies. For a list of Group companies, see “Scope of Group companies subject to reporting” in our 2014 CSR Report. (<http://www.daicel.com/en/csr/library.html>).

Q10

In conclusion, what is your message for stakeholders?

Daicel was established from the merger of eight cellulose companies in 1919 (see page 12). Including the years of operations before this merger, Daicel is a company with a history extending back more than 100 years. Daicel can trace its DNA back to the dawn of Japan’s chemicals industry, to the very people that succeeded in the mass production of celluloid, a new

material for the human race, for the first time in Japan.

I have had the pleasure of meeting with our stakeholders, the companies that have been our customers since before Daicel became Daicel. These customers have longer histories than us,

stretching back to when celluloid was first imported into Japan. I am honored to still be in business with these venerable companies. Through wars, natural disasters, and other changes in the business environment, and through experiences with our own accidents and product defects, we have learned timely lessons when they needed to be learned. We have persevered by choosing the right path forward. We take great pride in being a part of this history.

Reviving the spirit of our founders, to create materials that benefit the world, we aim to generate profits only after ensuring safety, quality and compliance. Using these profits to sustain growth, by investing in equipment and R&D, we aim to return value to our employees and shareholders. With this corporate vision in mind, we are implementing our new medium-term plan. We are grateful for your support of the Daicel Group.



Fiscal 2013 Highlights

2013/04

12th Daicel Group Responsible Care Promotion Conference Held

The 12th Daicel Group Responsible Care Promotion Conference was held at the Company’s Osaka Head Office on April 2, 2013. This conference is held each year to raise awareness of Responsible Care initiatives—one of two components of the Daicel Group’s CSR activities. In the fiscal year under review, the keynote speech was presented by Keio University Professor Kenichi Takano, who spoke about fostering a culture of safety and creating organizations that are not prone to accidents.

Daicel Group

3rd KAIZEN Case Study Meeting Held

On April 11, the 3rd KAIZEN Study Meeting was held at the Company’s Hirohata Plant. This year, a total of eight sites participated, including Group company Polyplastics Co., Ltd. Teams that won the preliminary round from each site gave their presentations, sharing information and exchanging opinions on their efforts to improve on a daily basis. Moreover, factory tours and social event planned around the presentations were an opportunity to foster a greater sense of Group unity.

2013/05

Investment in Toyama Filter Tow Co., Ltd.

On May 1, Daicel made an investment in Toyama Filter Tow Co., Ltd., which was spun off by Mitsubishi Rayon Co., Ltd. in October 2012, turning it into a joint venture. With global demand for tobacco growing in mainly Asia, Africa and the Middle East, Daicel aims to establish a highly internationally competitive business, locking onto sales opportunities by expanding product supply volume.

2013/06

Arai Plant Completion of Construction of Functional Chemical Product Plant

Daicel finished installing test manufacturing facilities at the Arai Plant that will be used in new business creation for the development, production and quality assurance of functional chemical products. In the sharply growing and rapidly changing fields of

light sources and optical materials, Daicel aims to accelerate the creation of new businesses by accurately identifying market trends and customer needs, developing and accumulating functional expression and quality assurance technologies, and developing a flexible production structure able to handle small-lot production of a wide variety of products.

2013/07

Expansion of Production Capacity for Acetate Tow for Cigarette Filters

Daicel expanded production facilities for acetate tow for cigarette filters at the Ohtake Plant, and also expanded production capacity for the same product at the Himeji Production Sector/Aboshi Plant. This expansion resulted in a 10% increase in production capacity for acetate tow. Daicel will continue to further strengthen the acetate tow for cigarette filters business.

2013/08

Aerospace & Defense Systems/ Safety Systems Company

4th Global KAIZEN Contest Held
Daicel’s Aerospace & Defense Systems/ Safety Systems Company held its fourth Global KAIZEN Contest. This year, the concept of the contest was to “review, observe, think, and act together.” Representatives from each base gave presentations on improvement examples, workshops were held on safety and quality, and other events were designed to share information and foster debate. The contest aims to raise the bar for improvement across the company and provide an opportunity to seed improvements globally.

2013/10

Daicel Chiral Technologies (China) Co., Ltd. (DCTC) Relocates and Expands

In response to the shift of new drug development bases to Asia, Daicel Chiral Technologies (China) Co., Ltd. (DCTC) relocated and expanded its structures for the sale of chiral separation services and chiral columns, both of which are growth businesses, and the development of chiral reagents, a new business.

To commemorate the move, DCTC held the 2nd Chiral Technology Symposium in

Shanghai and gave the keynote presentation, and offered tours of its new laboratory (R&D facilities), deepening the understanding of the Daicel Group’s chiral business among customers and local university representatives.

Polyplastics Co., Ltd. Establishes Sales Company in Mexico

Polyplastics Co., Ltd. established Polyplastics Marketing Mexico, S.A. de C.V., which began operations. By creating this base in Mexico, Polyplastics is now able to more accurately address the demands of Japanese customers making inroads into North America and Latin America. Along with Polyplastics USA, Inc., a sales company in the United States, the base will also provide support to U.S. companies conducting business in Asia.

2013/12

Airbag Inflators Commercial Operations Commence at Korean Base

As a part of initiatives to globally develop the automobile airbag inflator business, Daicel established Daicel Safety Systems Korea, Inc. as a production and sales base in Korea. The start of commercial operations brings the number of airbag inflator production and sales bases to six worldwide, and Daicel will continue to create an optimized supply structure globally.

2014/01

Increase in POM Polymerization Capacity in Malaysia

Polyplastics Co., Ltd. expanded polymerization capacity for polyacetal resin (POM) at Polyplastics Asia Pacific Sdn. Bhd. in Malaysia, and commenced commercial production at the expanded facilities. The Polyplastics Group now has the largest supply capacity for POM in the world. The expanded plant features cutting-edge equipment to ensure reliable quality, and the highest energy-saving processes in the world to make it highly cost competitive. Polyplastics aims to expand markets all over the world, including Europe and the U.S. in addition to China and other parts of Asia.

Chronology of the Daicel Group

The Daicel Group has its roots in Dainippon Celluloid Co., Ltd., which was established in 1919 through the merger of eight celluloid producers. Today, the Group specializes in the manufacture and sales of a wide variety of chemical products.

Since our earliest days, we have led the industry in the quality and volume of the celluloid we produce, while engaging in research and development on natural, high-polymer resins, which would eventually replace celluloid. In 1929, we succeeded in the development of acetate plastics, and in 1935, we took a bold step to commercialize cellulose acetate. This entailed the production of

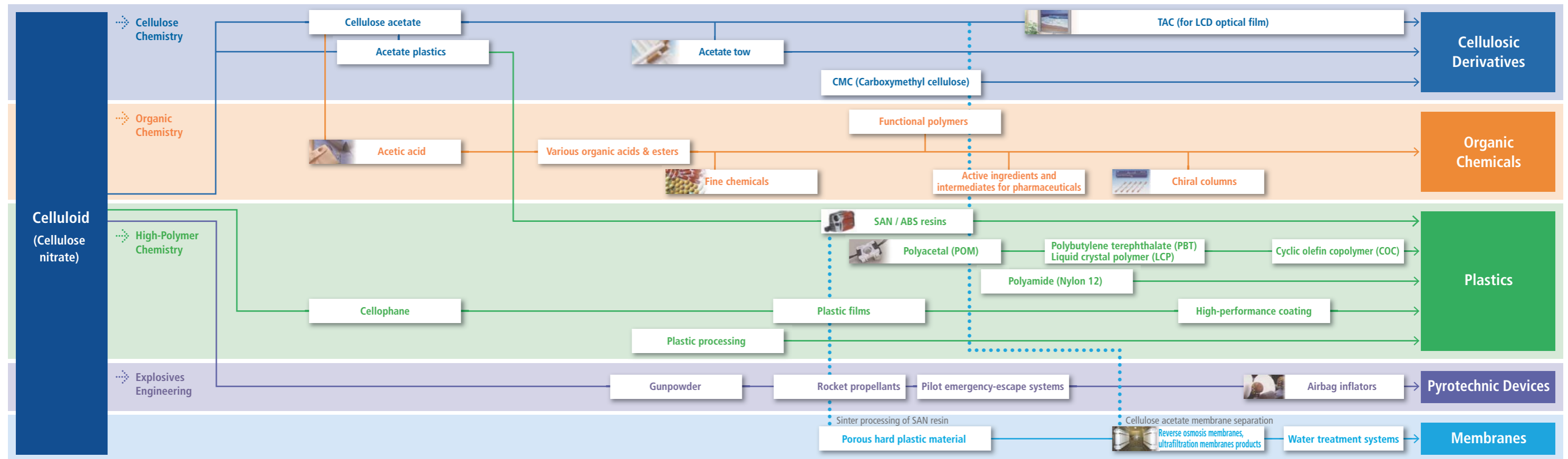
acetic acid (a raw material of cellulose acetate) in-house from carbide. This decision led to the handling of acetic acid derivatives products as well, and with this significant step we entered the organic chemicals field.

With the emergence of the petrochemical boom in the 1960s, we began participation in a petrochemical complex project. In 1964, we established Polyplastics Co., Ltd. through a joint venture and, launched an engineering plastics business. Meanwhile, ascertaining the fact that celluloid serves as a raw material for gunpowder, we entered the pyrotechnic devices business, providing gunpowder

and other products. This segment eventually bore fruit with the development of automobile airbag inflators.

With the onset of the first oil crisis, we strove to promote decreased dependence on petroleum-based raw materials through such means as using methanol produced from natural gas in the manufacture of acetic acid. In recent years, with an eye on the establishment of a sustainable chemical industry, we are increasing the use of bioethanol. In line with such environmental efforts, an ethylamine plant and an ethyl acetate plant began commercial production in 2007 and 2009, respectively.

Today, the Daicel Group's four flagship businesses encompass cellulosic derivatives, organic chemicals, plastics, and pyrotechnic devices. Through these businesses, the Company has attained high global market shares for such products as triacetyl cellulose (TAC) for use as a raw material of films for liquid crystal displays, chiral columns, polyacetal (POM) and automobile airbag inflators. Through the provision of these and many other products, we are contributing to the development of society.



1908
History before Establishment of the Company: Sakai Celluloid Company and Japan Celluloid Jinzo Kenshi Co., Ltd. are established.
Company establishment: Dainippon Celluloid Company Limited is established in 1919 through merger of eight celluloid producers. Plants are established in Sakai, Kanzaki, Aboshi and Tokyo.
 • Games of the IV Olympiad are held.
 • The end of the First World War leads to a postwar recession.



1920
 Amid a severe economic climate, the company undertakes research on photographic films as a successor to the celluloid business.
 • The Great Kanto Earthquake strikes (1923).
 • The crash of the New York Stock Exchange triggers a global depression (1929).



1930
 Fuji Photo Film Co., Ltd. (currently FUJIFILM Corporation) is established and is spun off as a photographic film business. The Company begins integrated production of cellulose acetate from its raw material, acetic acid, as part of a research project undertaken soon after the company's establishment.
 • World War II breaks out (1939).



1940
 Every plant focuses on production of materials for the war effort, and some plants are damaged. After the war, plants that remain free from damage return to production of civilian goods. The Company overcomes the challenges of designated compensation payments and a crisis involving a call for the breakup of the company.
 • World War II ends (1945).



1950
 The business of acetate tow for cigarette filters begins full-scale production. Cellulose acetate replaces cellulose nitrate as the base for photographic film, which renders film incombustible. Synthetic high-polymer plastics are introduced, and demand for celluloid declines.
 • Japan signs a peace treaty and regains its independence (1951).
 • TV broadcasting begins (1953).
 • Japan's first petrochemical complex opens in Iwakuni (1958).



1960
 With the rise of the petrochemical industry, Daicel becomes a member of the Iwakuni-Ohtake petrochemical complex and enters the petrochemical business. The high-polymer business is expanded through the establishment of Polyplastics Co., Ltd.
 • The Japanese economy enters a period of rapid growth.
 • The Tokaido Bullet Train line opens (1964).
 • The Tokyo Olympics are held (1964).
 • The first manned moon landing takes place (1969).



1970
 Excessive competition emerges in the petrochemical industry, resulting in low revenues, and 20% of employees accept an offer of voluntary retirement. The oil crisis dampens economic growth and the cellophane business undergoes reorganization.



• Expo 70 is held in Japan (1970).
 • Okinawa is returned to Japanese control (1972).
 • The first oil crisis occurs (1973).
1980
 The use of non-petroleum-based raw materials is promoted as the manufacture of products using acetic acid from the methanol carbonylation process is expanded. A foundation for the production of functional chemicals and fine chemicals is created. The Company enters the automobile airbag inflator business in earnest.
 • The Equal Employment Opportunity Law is enacted (1986).
 • The Japanese economy enters the "bubble" phase.



1990
 The Responsible Care Initiative is introduced. The Company enters the chiral chromatography business in earnest. The development of functional chemicals and fine chemicals is promoted.



Domestic production of acetate tow for cigarette filters is increased and offshore production in China is begun.
 • End of the Cold War.
 • The Great Hanshin Earthquake strikes (1995).

2000-2014
 The Integrated Production Center is completed in the Aboshi Plant. The automobile airbag inflator business is launched internationally, starting in the U.S.A. Cellulose acetate production is begun in China. In Japan, manufacturing facilities for cigarette filter tow and cellulose acetate, along with a circulation fluidized bed boiler, are installed at the Ohtake Plant.
 • Japan and Korea jointly host the World Cup of Soccer (2002).
 • The Kyoto Protocol comes into force (2005).
 • Great East Japan Earthquake (2011).
 • Economic growth accelerates in the EU and BRIC nations.
























Major Applications of Daicel Group Products

The Daicel Group's products include many basic materials.

As such, the general public may come in contact with them without even noticing it. Here we introduce finished goods around you that are produced using Daicel Group products and materials.

- : Cellulosic derivatives
- : Organic chemicals
- : Plastics
- : Pyrotechnic devices
- : Others



 <p>1 LCDs ● TAC (cellulose acetate for LCD optical films) ▶ World's No.1 *Sales share (Daicel estimate)</p>	 <p>2 Cigarette filters ● Acetate tow, Cellulose acetate ▶ Japan's No.1 *Production capacity (Daicel estimate)</p>	 <p>3 Eyeglass frames ● Celluloid</p>
 <p>4 Polyester fibers ● Acetic acid ▶ Japan's No.1</p>	 <p>5 Cosmetics, shampoos and conditioners ● 1, 3-BG ● HEC, CELISH</p>	 <p>6 Pharmaceuticals ● Ketene derivatives, monochloroacetic acid and amines ● CMC</p>
 <p>7 Lithium-ion batteries ● CMC</p>	 <p>8 Automotive paints ● Caprolactone and special epoxy resins</p>	 <p>9 Printed circuit boards ● Epoxy compounds</p>
 <p>10 LED traffic lights ● LED encapsulants</p>	 <p>11 Pharmaceutical development ● Chiral columns ▶ World's No.1 *Sales share (Daicel estimate)</p>	 <p>12 Auto parts ● POM, PBT, PPS, SAN and ABS ▶ POM World's No.1 *Production capacity (Daicel estimate)</p>
 <p>13 Office equipment and electronic components ● POM, PBT, LCP and PPS ▶ LCP World's No.1, POM World's No.1 *Production capacity (Daicel estimate)</p>	 <p>14 Electrical equipment, office equipment and telecommunication devices ● SAN, ABS and polyamide resins</p>	 <p>15 Food trays ● Styrene sheets and finished goods</p>
 <p>16 Packaging and films for snacks and pocket warmers ● Packaging films</p>	 <p>17 Agricultural materials ● Foamed polyethylene netting</p>	 <p>18 Airbag systems ● Inflators ▶ Japan's No.1 *Production capacity (Daicel estimate)</p>
 <p>19 Water filtration and wastewater treatment ● Reverse osmosis membranes and ultrafiltration membranes</p>	 <p>20 Household articles ● Improved sink-corner strainer</p>	 <p>21 Household articles ● Freshness clips</p>

Daicel's Energy-Saving Initiatives

— Realizing Substantial Energy Savings from Three Angles

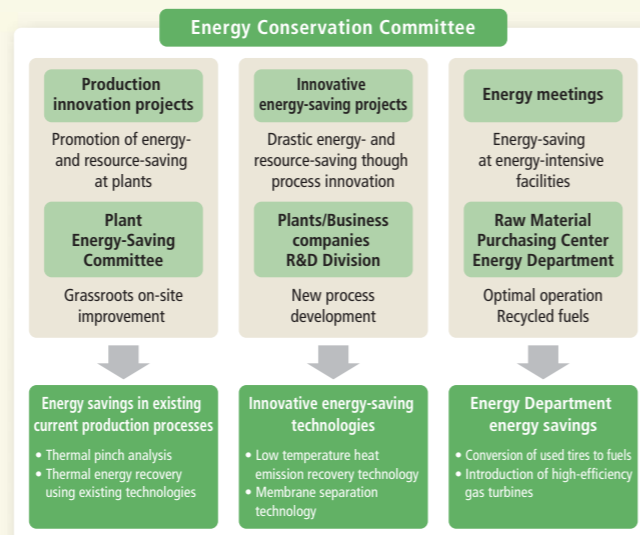


Introduction

It is said that global warming and climate change are having a serious impact in the world's natural environment and ecosystems. Industry as a whole is pursuing a variety of measures aimed at preventing global warming.

Daicel continues to promote energy saving from three angles: Energy Department energy savings; energy savings in existing current production processes; and the introduction of innovative energy-saving technologies. With the Energy Conservation Committee taking the lead to promote Companywide energy saving, Daicel pursues measures that extend beyond organizational boundaries while incorporating the collective efforts of all related departments.

In this Special Feature, we provide specific details of the Company's efforts across the aforementioned three angles.



Energy Department Energy Savings

The Company's Aboshi, Ohtake, Arai and Kanzaki plants all produce their own electricity, steam and other utility resources consumed during the manufacturing process. Each of these plants operates high-efficiency power generation facilities that enable the simultaneous use of electricity and thermal energy including steam in an effort to minimize environmental impact. Plants are promoting a variety of energy-saving initiatives in connection with the production of utility resources including the introduction of cogeneration facilities¹⁾.

The Ohtake Plant first introduced a circulation fluidized bed boiler in August 2007. By circulating hot sand in the combustion chamber, this boiler ensures sound combustion even when burning a recycled source such as used tires. Since installing this facility, the Plant has continued to engage in thermal recycling utilizing used tires as a source of fuel. Currently the percentage of tire scrap used in the combustion mix stands at 35%. In the future, plans are in place to increase this rate to a maximum 50%.



Circulation fluidized bed boiler at the Ohtake Plant

Gas turbine cogeneration system at the Aboshi Plant

In September 2012, the Aboshi Plant brought online a cogeneration system that employs gas turbines. This state-of-the-art system boasts the world's highest efficiency rating in its class with cogeneration supply heat efficiency rates reaching approximately 86% during performance tests. Through the use of natural gas, CO₂ emissions are lower than those for coal. Moreover, this system covers virtually all of the Plant's energy needs, substantially reducing the amount of electricity purchased.

Energy Savings in Existing Current Production Processes

In its efforts to secure energy savings in existing current production processes, Daicel has sought to optimize the use of thermal energy by applying a thermal pinch analysis method²⁾ while at the same time working to improve its processes through the use of existing technologies. To date, the Company has focused on such energy-saving items as heating feed-water for boiler water supply using exhaust heat generated through an acetic acid recovery process. Under the banner of "Grassroots energy-saving activities" we have also strengthened management of steam traps (promoting the discharge of water that accumulated in piping and equipment together with the use of automatic valves to prevent steam from leaking) and optimized the number of refrigerating machines and cooling towers. Through these and other measures, Daicel

continues to openly engage in a variety of measures that extend from the maintenance of energy-related facilities to office operations in a bid to conserve energy.

Moreover, we are working to run both the Aboshi and Ohtake plants as one virtual factory. This essentially entails setting up a single factory by combining the computer systems of both plants and putting in place a production plan that minimizes total costs including energy. We anticipate considerable energy savings together with a reduction in costs due to these efforts aimed at ensuring the optimal use of energy.

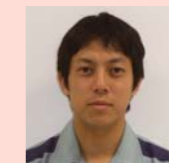
Grassroots Energy-Saving Activities

1	Strengthening steam trap management	9	Reducing the amount of industrial water usage
2	Strengthening exhaust heat and heat recovery initiatives	10	Installing energy-saving lighting
3	Optimizing distillation tower operations	11	Suspending the use of unnecessary air conditioning and lighting
4	Ensuring proper compressor operating conditions	12	Ensuring that computers switch automatically to power-saving mode when unattended
5	Improving failure rates through efforts to reinforce humidity control	13	Managing air-conditioning temperature settings
6	Reviewing pump specifications in accordance with required capacity	14	Optimizing the number of copy machines while transitioning to the latest equipment
7	Optimizing refrigerating machine operations	15	Promoting cool and warm biz initiatives
8	Adopting a sprinkler system for outdoor air-conditioning equipment		

♂ What is...?

1) **Cogeneration:** A high-efficiency energy supply system that uses exhaust heat such as that from boilers to produce electric power and steam at the same time.

2) **Thermal pinch analysis method:** An energy conservation technique for understanding the thermal balance of an entire plant and optimizing the recovery and utilization of thermal energy.



Tomoki Iwasaki

Energy- and Resource-Saving Action Team
 Organic Chemical Products Company
 Aboshi Production Group
 Daicel Corporation

Each plant's Energy Conservation Committee is taking the lead to secure Grassroots energy-saving activities. At Aboshi Plant, we are witnessing success through a variety of measures including efforts to strengthen the management of steam traps.

Individual plant initiatives are extended to other plants in a bid to ensure comprehensive energy savings. I am convinced that this is one of the Company's strengths.



Introduction of Innovative Energy-Saving Technologies

Daicel looks well beyond efforts to improve and refine its existing technologies when putting in place energy-saving measures. For example, the Company works to comprehensively review its production processes and to develop new technologies.

It has been said that distillation processes account for around 40% of general energy consumption in the chemicals industry. This is also true for Daicel's operations. As a result, uncovering new distillation process energy-saving technologies will go a long way toward reducing energy consumption. Meanwhile, the distillation process on the one hand utilizes high-temperature thermal energy while on the other hand generating large volumes of low-temperature exhaust heat energy which is released unused. With this in mind, a truly beneficial distillation process energy-saving technology must focus not only on reducing high-temperature thermal energy usage, but also on the effective recovery and reuse of low-temperature exhaust heat energy.

Daicel has launched an innovative energy-saving technology project and is promoting cross-sectional activities throughout every level of the Company. As a part of these endeavors, we have stepped up efforts to develop an improved Petlyuk technology to secure energy savings across the distillation process and have undertaken demonstration tests at an actual chemical plant. In addition, the Company is one year away from conducting practical demonstration tests of a vapor recompression (VRC) technology. Despite awareness toward each of these technologies, neither had undergone practical application at a chemical plant. Daicel's endeavors in this area are breaking new ground for the industry worldwide.

Petlyuk Technology

Petlyuk distillation, and its practical application as a dividing-wall distillation column (DWC), is widely recognized as an energy-saving technology. However, the introduction of a DWC is limited to the renewal of distillation towers. Unable to utilize existing facilities, a DWC initiative entails massive amounts of capital expenditure.

By refining Petlyuk technology, Daicel developed a new process technology that enables application through improvements to existing distillation towers.

Consideration is being given to application at acetic anhydride manufacturing facilities at the Company's Arai Plant. This is after achieving the targeted energy-saving rate of 30% during demonstration tests conducted from January 2014. Looking ahead, we plan to progressively apply this technology to our distillation processes.

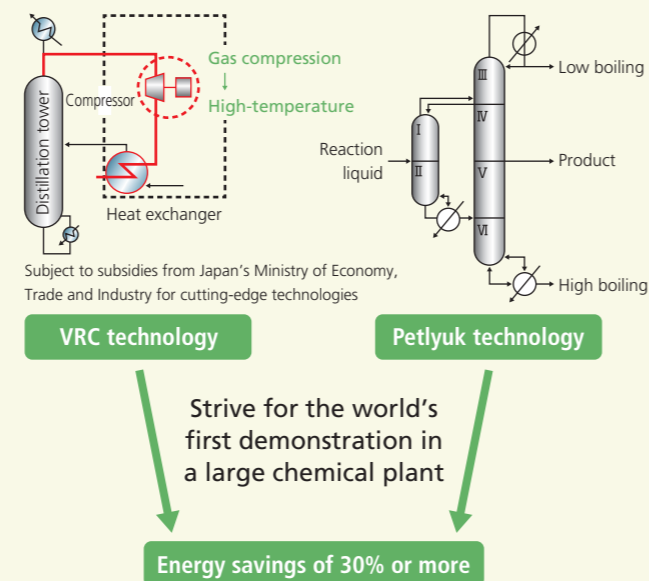
VRC Technology

Expectations are mounting that VRC technology will become universally used to recover heat as high-temperature steam by compressing the exhaust heat inherent in low-temperature steam. While this technology has been widely used in water system simple distillation processes, there have been no examples of its application in organic solvent distillation processes. With that, Daicel has been looking into the development of a compressor that would enable the use of the VRC technology in organic solvent distillation processes in conjunction with a compressor manufacturer. At the same time, plans are in place to undertake and complete processing demonstrations by the end of 2014 through the development of a technology that will facilitate stable distillation tower startup.

This technology can be extensively applied in the recovery of low-temperature exhaust heat and as such can contribute significantly to the chemical industry as a whole.

Under its new Medium-Term Plan, Daicel is looking to advance several technologies to the demonstration level. The goal is develop innovative processing technologies that not only help conserve energy, but also bolster the competitiveness of existing products.

Looking ahead, we will actively employ membrane separation, new reaction and other technologies while pursuing processing innovation that reduces distillation load as a part of efforts to achieve further energy savings.



▶▶▶ Here, a project leader comments on the long road that led to verification tests.



Noboru Kamei

General Manager, Production Technology Center
Production Technology Division

Innovative energy-saving projects entail the comprehensive review of processes and the development of new technologies to realize substantial energy savings in production processes.

As a first step, we undertook a survey to ascertain the status of energy usage throughout each process. In analyzing energy consumption across key processes, it became clear that a large portion of energy was being used because vast amounts of energy were being discarded as process exhaust heat. Moreover, the majority of this exhaust heat was of the low-temperature kind, which is difficult to recover.

Drawing on surveys and subsequent analysis, the focus of projects was directed toward energy-saving technologies and in particular technologies that use low-temperature exhaust heat.

Initially, we considered applying existing technologies to individual processes. We soon found that this methodology was inappropriate. The conclusion was then to develop completely new technologies that would overcome difficulties in recovering low-temperature exhaust heat.

Setting up project teams that comprise members from every area of the Company and that cross established organizational boundaries is a fundamental feature of Daicel's corporate culture. It is for this reason that we have been able to come this far.

Accordingly, we launched a project team that drew on the collective knowledge and experience of a large number of engineers including those from the processing field. After considering several dozen items, we narrowed our focus to around 10 candidate proposals that exhibited considerable energy-saving potential.

Next, we identified the goal of utilizing new technologies on an individual item basis across all of the Company's facilities as opposed to a single plant. As a result, we set up an industrial science review team within the project team comprising members from throughout the Company including internal companies, the Central Research Center, the Engineering Center and the Production Technology Division with a view to tackling this issue utilizing collective strengths. Through detailed and continuous discussion, we were able to progress through to verification testing.

Looking back, in the initial stages it seemed like we were reaching for the clouds. Drawing on the expertise, technical skills and experience of team members from a wide range of areas, we are little by little moving toward clearer skies. While the future remains blurred we have now reached a point where our goal is coming into focus.

You often hear about the vertical structure of companies and the problem of sectionalism. Here at Daicel, you only have to ask and individuals from throughout the Company will come together to form a formidable team. I am convinced that this is why we have been able to come this far.

Moving forward, we will continue to develop new techniques in a number of areas including membrane separation technologies. We will bring together knowledge from throughout the Company to accelerate the pace of our energy-saving endeavors.

Products and Technologies that Contribute to a Healthier Environment and People's Safety

Daicel FineChem Ltd.

GRANFILLER-D: A Premixed Excipient¹⁾ for Orally-Disintegrating Tablets

Orally Disintegrating tablet (OD-tablet) is a new type of dosage form that quickly dissolves in the mouth without water. To meet the needs of young children and elderly people who have difficulty swallowing conventional dosage form, OD-tablets are becoming popular.

GRANFILLER-D, which was jointly developed by Daicel Group and Nichirin Chemical Industries, Ltd., is supplied to pharmaceutical companies as an ingredient for the manufacture of the OD-tablets. The unique granulation method and formulation composed of several pharmaceutical excipients such as cellulose and saccharide realizes rapid disintegration of the OD-tablet in the mouth even at a high tablet hardness.

Superior in both disintegration and formability, GRANFILLER-D achieves these characteristics even in high-dose tablets that have been difficult to realize in prior premixed excipients.

GRANFILLER-D has already won adoption in Japan.

1) Excipient: An ingredient that facilitates the administration and handling of pharmaceuticals.



Prescribed to patients

GRANFILLER-D: A Premixed Excipient for Orally-Disintegrating Tablets

GRANFILLER-D®



GRANFILLER-D in its powder form

Mixed with active ingredient, then followed by compression



Orally-disintegrating tablets that dissolve in the mouth without water

Daicel Corporation

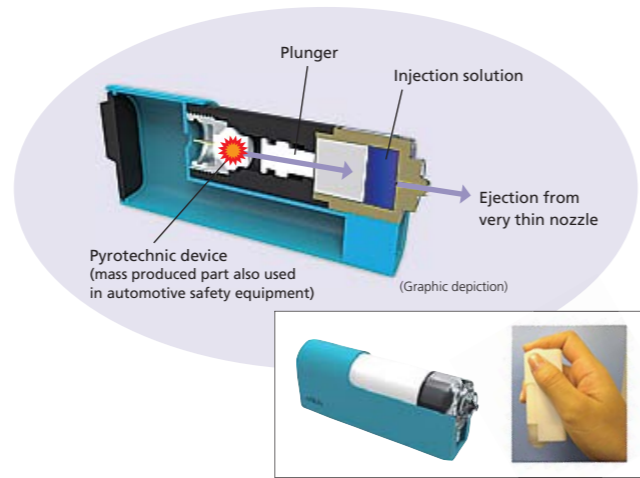
Gas-Driven Needleless Injector

This needleless injector can precisely deliver medicine to the targeted region without risk of a needle accident while eliminating the fear of a conventional needle injection. We believe this injector will gain acceptance both for being gentle on people and able to accurately deliver medicine where needed.

Based on technologies accumulated in the pyrotechnic devices business, Daicel has been developing needleless injectors that use the gas-generating forces of pyrotechnic devices. Previous needleless injectors could only deliver medicine to a certain region. With our needleless injector, however, the combustion of gas-generating

agents can be precisely controlled, allowing the user to select a target region.

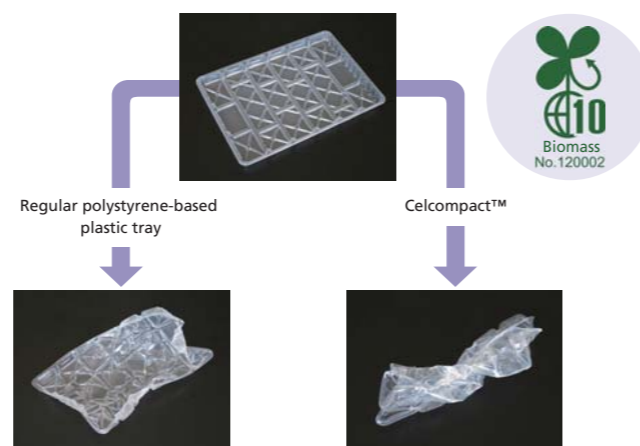
As a medical device that lightens the burden on patients, we hope this needleless injector will make medical treatments gentler on the elderly, small children, and other patients.



Daicel Pack Systems, Ltd.

Celcompact™

Typical plastic containers are bulky, taking up space in waste bins and inconveniencing consumers. The Celcompact™ series of plastic containers can be easily twisted and crushed, yet they retain their crushed shape, thereby reducing the volume of waste. In addition, Celcompact™ plastic trays are sturdy, do not break easily, and are thinner, making them lighter. Compared with regular polystyrene-based plastic trays, Celcompact™ trays take up less waste volume and use less energy in transportation, thereby helping reduce CO₂ emissions. Celcompact™ Eco is an eco-grade version of Celcompact™ that uses natural biomass raw materials for even greater reductions in CO₂ emissions. Celcompact™ Eco has received the Biomass Mark certification, a symbol of environmental friendliness.



The Daicel Group develops products and technologies that contribute to a healthier environment, providing customers with environmentally friendly products and safety.

Daicel Polymer Ltd.

Cellulose Bioplastics based on Wood Resources

Daicel Polymer Ltd. and Fuji Xerox Co., Ltd. have jointly developed cellulose bioplastics produced from non-edible wood resources. This bioplastic contains about 40% of the weight of plant-based materials derived from wood pulp which does not have any negative influence on the food problem.

Our cellulose bioplastic has obtained a classification of UL 94 standard²⁾ V-2 for safety of flammability of plastic materials, and it has also showed a weld strength³⁾ exceeding that of ABS resins and moldability equivalent to that of ABS resins based on petroleum materials. Fuji Xerox Co., Ltd. currently uses this bioplastic to make internal parts for its office equipment, which has received the BiomassPla (BP) mark from the Japan BioPlastics Association.



(Photo courtesy of Fuji Xerox Co., Ltd.)

This technology was recognized with the CSJ Technical Award in fiscal 2012 by the Cellulose Society of Japan for "the development and practical application of environmentally compliant flame-resistant cellulose plastic compounds."



- 2) The flame-retardant standard defined by Underwriters Laboratories that rates the flame resistances of plastics.
- 3) The strength of points of contact when plastic is poured together from two directions.

DLAMP® Technology for Metal/Plastic Bonding Contributes to Lighter Weights

DLAMP® is a technology that uses laser exposure to form a special shape on the surface of metal that is placed in a mold and bonds with the injection-molded (insert-molded) thermoplastic. When the resin is injected into the specially shaped interior, a "anchor stitch" forms in part of the resin, which bonds the metal and resin with high strength.

This technology can be applied to stainless steel or aluminum or other metal components, and by combining PLASTRON long fiber-reinforced plastics that have a metal-like coefficient of linear expansion, an even higher bond strength can be achieved, along with superior adhesive durability.

This process differs from bonding using conventional adhesives or the application of an adhesive liquid to the metal surface. It is a dry process that generates no solvents, liquid waste, or other waste materials, thus helping to reduce environmental impact.

Daicel Polymer is currently deploying PLASTRON long fiber-reinforced plastics as next-generation metal replacement materials. Now, in combination with DLAMP®, it becomes possible to substitute parts and achieve results that have been impossible with resins alone.

Applications are being pursued in a wide range of fields. In automobiles, the process can reduce weight, improve fuel efficiency, and reduce CO₂ emissions; in office equipment and other industries it can help to cut costs by reducing the number of parts required.

Recycled Grade HN20R5 and HF30R5 for EPEAT conformity

- HIPS (HB): HN20R5
 - HIPS (V-2) with non-halogenated flame retardants: HF30R5
- These materials are environmental friendly recycled plastics.

EPEAT⁴⁾ is a widely known green procurement standard in the U.S., and it is one of a procurement requirement for electronic products by federal government institutions in the U.S. In order to register under EPEAT, it is necessary to meet IEEE1680⁵⁾ which is an environmental assessment standard for electronic equipment. By using these materials, it is possible to fulfill a requirement defined by IEEE1680 regarding the use of post-consumer recycled plastics.⁶⁾

Daicel Polymer Ltd. also plans to create a lineup of flame-retardant plastics based recycled polycarbonate, in its aim of meeting market needs for plastics that comply with green procurement standards.

- 4) EPEAT is an acronym for Electronic Product Environmental Assessment Tool. It is a green procurement standard in the U.S.
- 5) IEEE 1680 is an environmental assessment standard for electronic products created by the Institute of Electrical and Electronics Engineers (IEEE) with cooperation from the Environmental Protection Agency (EPA).
- 6) Post-consumer recycled plastic is a plastic that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item.

Human Resource Development Initiatives

The Daicel Group's Human Resource Policy

Amid the fast-paced expansion of overseas business activities associated with globalization, the Daicel Group put in place a human resource policy taking into consideration the need for employees with a varied and diverse set of values to work closely together. In coming up with this policy, which covers a wide range of areas including recruiting, training, assigning, and working conditions, the Group was conscious of the fundamental underlying concept that people are the wellspring of success.

❖ The Three Core Principles of Our Human Resources Policy

- **Will**
We encourage the strong will and courageous decisions of each individual.
- **Diversity & Inclusion**
We continue to evolve through the interaction of our diverse personalities.
- **Integrity**
We do the right thing and proudly follow the right path.

Personnel System to Support Personnel Development

At Daicel, human resource development is underpinned by various systems and structures. By consistently adhering to the intent of these systems and consistently following these rules and structures, Daicel is promoting human resource development.

"Management by Objectives" (MBO)

MBO is a management system which enables both personnel and the organization to grow together through efforts aimed at achieving established targets. Through biannual meetings, each individual, under the direction of a superior, sets his or her goals in line with the targets of divisions and the entire Company. Individual employees then work to accomplish their goals. In terms of evaluation, we focus not only on results but also on the processes used. We use dialogue between superiors and subordinates as opportunities to allow people to develop their skills and ability.



An interview

System to Hear Employees' Thoughts (Voluntary Reporting System)

The self-evaluation system gives employees an opportunity to express their career-development wishes. Once a year, all employees express their frank thoughts and opinions regarding their current job, future posting preferences and work locations. Through dialogue, supervisors consider optimal placement and personnel training programs based on the individual's wishes and aptitude, with the aim of helping them make the most of their capabilities.

Educational and Training System to Support Personnel Development

As a means to promote human resource development, Daicel is strengthening group seminars. Various educational and training programs have been created to meet employee needs, which vary depending on status and type of work, to maximize their effectiveness.

Introductory Training for New Employees (Training for Manufacturing)

We provide all new employees with one year of training for manufacturing operations. Through group seminars, each trainee initially acquires basic corporate knowledge while learning about the Company's policies and various systems. Following this, trainees acquire basic knowledge about the actions and behavior required in manufacturing workplaces through on-the-job training at the Operation Training Center and a production site, where they will become acclimated to the eight-hour-shift system.



Volunteer training (Reconstruction support activities in eastern Japan; Local cleanup activities)

Our Commitment to Technicians

For Daicel, a manufacturing-oriented company, the development of technicians is an important management issue, because they underpin the foundation of the Company's manufacturing operations. Starting with first-year training for manufacturing, technicians continue to receive education aimed at allowing them to acquire various specialized techniques, modes of action and other knowledge required when they become managers in the future.



On-the-job training (OJT) at production sites and the Operation Training Center

Training for Newly Appointed Directors at Group Companies

In creating an environment that is conducive to the ongoing development of the Group and its management, it is vital that Daicel puts in place a corporate management training structure and systems for the directors of Group companies. With this in mind, training is provided for directors and corporate auditors newly appointed to the Group's companies in Japan. Training encompasses a host of management and operating issues, including areas that warrant particular attention and concern as well as important and mandatory information essential to driving each company forward. Specific case studies are used to address such specialist fields as corporate ethics, legal affairs, accounting, and personnel. The Group takes great pains to put in place a curriculum that helps newly appointed officers gain the necessary observation skills to quickly identify issues of potential concern and to take appropriate action.

Globalization Initiatives

Supporting Overseas Group Companies

The Daicel Group maintains a workforce of approximately 12,000* employees. Of this total, around 6,000 are employed by Group companies overseas. A variety of personnel management and labor support measures targeting overseas Group companies are undertaken in order to identify and nurture human resources, who are capable of contributing to the Group's worldwide business, and to better ensure the efficient use of personnel across the Group as a whole.

Specialized proposals and advice are provided in a bid to resolve and promote issues at each Group company. Every effort is being made to reinforce ties with overseas Group companies through collaborative training based on daily interaction with personnel officers.

*Includes Daicel Corporation, Group companies, and non-regular employees; identical to the scope of reporting companies in the Company's 2014 CSR Report
<http://www.daicel.com/csr/library.html>

Human Resource Development from a Global Perspective

In similar fashion to our efforts in Japan, we are placing considerable emphasis on promoting human resource development at our overseas bases. To ensure a greater sense of autonomy and independence at overseas bases, human resource development and training is undertaken in line with specifically designed local curricula. At the same time, the Daicel Group is actively promoting the development of its local staff at overseas bases supported by training programs in Japan as and when required.

In order to maximize the strengths and capabilities of its Group-wide human resources, Daicel recognizes the critical need to share its basic philosophy and long-term vision with overseas personnel. Looking ahead, we will work to ensure that our long-term vision and human resource policy are widely accepted and understood by the Group's overseas personnel.



What I learned from my participation in manufacturing training



Yang Xue
Investor Relations & Corporation Communications Group
Business Support Center
Daicel Corporation

After entering the Company, I participated in a manufacturing training program. This program covered a variety of areas including basic safety, fundamental education and training at each plant, and first-hand experience in Daicel's frontline eight-hour-shift system. Drawing on this opportunity to gain practical onsite experience, I was able to fully understand the importance of utilizing every ounce of wisdom and the role that the 3S principle plays in solving issues and ensuring the safe manufacture of products. In addition to learning the 3S—*seiri* (sorting), *seiton* (putting everything in order), and *seisou* (cleaning)—principle, my experience at this manufacturing training program provided an introduction into activities that help narrow the gap between what is considered ideal and reality. As someone who works in an administrative capacity and has little or no opportunity to participate in manufacturing activities, this program was an excellent chance to gain insight into what it is like to work on the frontline. The importance of not just going through the motions, but also asking why something is done, was another valuable lesson I took from this training. Taking the initiative and actively communicating with others is clearly a key to acquiring essential details and assembling a complete, accurate picture.

This experience generates additional value when applied in other aspects of life. Moving forward, I would like to utilize what I learned during my experience at the plant in the way I approach my work, by applying the principles of independence and 3S spirit.

Engage in the startup of a new line



Preecha Thongking
Manager, Engineering Section
Daicel Safety Systems (Thailand) Co., Ltd.

Plans are in place to start up a new automated line at Daicel Safety Systems (Thailand) Co., Ltd. (DSST). As a part of this plan, and in order to hone my skills in the inflator function, I undertook training at the Harima Plant. During this training, I saw automated machinery that really opened my eyes. This experience fueled a thirst to learn more about advanced and complex technology. I felt that it would benefit my team back at DSST to learn about these technologies.

At the end of the day, we decided to employ a Thai-based manufacturer to set up the new automated line. This in itself was also a positive experience. We had the opportunity to call on the machinery manufacturer together with staff from Japan. This was an excellent opportunity for all concerned as it provided many instances of deliberation and debate. I am extremely grateful to my manager and management for providing me with this opportunity to gain practical experience in negotiating and dealing with business partners. The start-up of this first automated line is an initial step toward the introduction of a second line. Looking ahead, I would like to use these kinds of experiences to strengthen the team and to take every opportunity to learn more in order to secure the ongoing growth and development of DSST.



Optimal Workplace Creation (Personnel Systems, etc.)

Approach to Diversity

Employment of Persons with Disabilities

As a part of its social responsibility activities, Daicel works diligently to achieve the official disabled persons employment rate. With this in mind, the Company proactively hires persons with disabilities to support the aspirations of these individuals to participate in social activities and to provide motivation in life. In working to achieve the statutory disabled persons employment rate of 2.0%, Daicel is taking systematic steps to comply. We pay utmost attention in assigning jobs according to the degree of disability, in order to help each of these individuals accomplish their best.

Continued Employment System

With the aim of promoting the employment of people age 60 and older, Daicel introduced a system for continued employment in 2003 for retired employees. In fiscal 2013, 33 of 34 employees (continuous employment rate: 97.0%) who reached the retirement age were employed on a continuous basis under this system. In accordance with revisions to the Act for Stabilization etc. of Employment of Older Persons etc., which apply to employees seeking to continue work through to the age of 65, Daicel will continue to offer a work environment where veteran employees can make use of their knowledge and experience.

Global Human Resource Recruitment and Development

In order to promote global management, Daicel actively promotes the recruitment and development of global human resources. Of

Information Regarding Human Resources and Labor Services

(As of March 31, 2014)

1. Number of employees			
Full-time employees	Regular employees	Male	1,534
		Female	177
	Manager and above	Male	725
		Female	9
	Subtotal	Male	2,259
	Female	186	
	Total		2,445
Other	Contract employees		253
	Temporary staff		33
	Total		286
2. Average age			42.0
3. Average service years			18.0
4. Average number of dependents			1.1
5. Average annual salary			689.3 million
6. Paid-holiday consumption rate (fiscal 2013)			66.2%
7. Personnel turnover rate (fiscal 2013)			1.3%
8. Recruitment (fiscal 2013)	New graduates		63
	Mid-career		45
9. Disabled persons employment rate (fiscal 2013)			1.72%
10. Number of reemployed persons (fiscal 2013)			31
11. Number of employees who used child-rearing/extended nursing care leave (fiscal 2013)	Child-rearing leave		3
	Nursing care leave		0
12. Number of employees who used the child-rearing/nursing care reduced work hours system (fiscal 2013)	Child-rearing leave		10
	Nursing care leave		0
13. Number of union members			1,711
14. Ratio of union members to total employees			63.4%
15. Average age of union members			38.8

The above data is for Daicel Corporation on a non-consolidated basis

the 35 graduates newly recruited in 2013, three were from countries other than Japan. The Company also maintains a recruitment policy at overseas subsidiaries that ensure the employment of local staff without discrimination. Through a global human resource development policy, the Company is fostering personnel imbued with the Daicel Spirit, who continue to excel around the world.

Efforts to Promote a Balanced Working Life

Leave-of-Absence and Labor System to Support Each Employee's Personal Life

Amid the ongoing decline in birthrates and an aging population, Daicel established the following systems to develop a working environment in which employees can work in comfort and with peace of mind.

- Child-rearing leave

Employees can take leave to focus on child rearing until the day before their child has reached the age of one (or up to 18 months in certain cases).

- Extended nursing care leave

Employees can take extended nursing care leave of up to 93 calendar days when full-time nursing care is necessary for family members.

- Special leave due to personal accident or illness

Employees can acquire special leave of up to 20 days per year, aside from annual paid holidays, in the event they have a non-work-related accident or illness and have to be absent from work for over one week.

- Family care leave

Employees can shift special leave due to a non-work-related accident or illness to family care leave of up to 10 days per year when a family member falls ill for over one week and requires full-time care.

- Reduced work-hour system

Employees can decrease their work hours by up to two hours per day when they need reduced hours due to pregnancy, childbirth (within one year of delivery), child rearing (up to the 3rd grade in elementary school) or nursing care (of family members).

- Promoting the take-up of annual paid leave

Employees are encouraged to take annual paid leave on certain days when drawing up annual plans for each workplace.

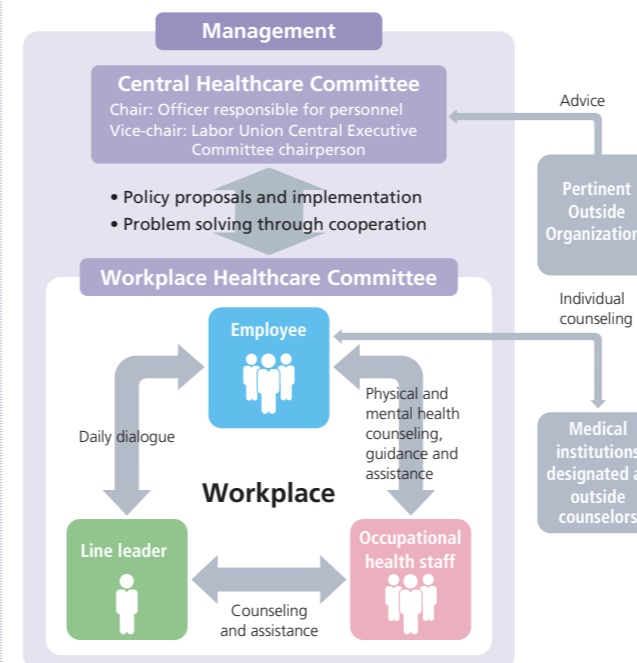
Labor and Management Relationship to Support Various Initiatives

Daicel considers the labor union to be an important stakeholder and, accordingly, has established the Labor and Management Charter. With respect to the individual positions of labor and management, management carries out discussions with labor in good faith in order to best develop the Company's business. Through these efforts, we are maintaining and reinforcing a healthy relationship between labor and management. In addition, labor and management committees are set up at each place of work while a variety of measures are undertaken to enhance the implementation of work-hour management and productivity.

Workplace Health Promotion (Healthcare Activities)

In 2003, Daicel established a Healthcare Committee, which represents both labor and management. This committee is working to create workplaces within Daicel where individual Daicel employees can exert their individuality and capabilities and promote health throughout the Company's workplaces.

The Healthcare Committee puts forward proposals relating to healthcare, takes steps to carry out measures at each workplace and strives to resolve individual issues. Through a process of collaboration, the committee also works to promote physical and mental care. In addition to helping employees with mental health problems return to work, the committee implements training while formulating and implementing plans for various activities aimed at identifying employees suffering from poor mental health at the earliest possible opportunity. These activities include the offering of educational programs to prevent physical and mental disorders and the construction of necessary systems. In this way, the committee is striving to promote the improved physical and mental health of Daicel employees. The Company recognizes that the ability of employees to go about their duties in a healthy and energetic manner goes a long way to ensuring that individual employees lead fulfilling lives. At the same time, this contributes to Daicel's growth and development. Based on this understanding the Company strives to take the appropriate action.



- Health Promotion Activities of Occupational Health Staff

Daicel has employed seven occupational health doctors and eight health nurses, who are providing health services at its two head offices (Osaka and Tokyo), six plants (Aboshi, Hirohata, Harima, Ohtake, Arai and Kanzaki) and one research center (Aboshi). Through health counselor offices at these business sites, doctors and nurses provide follow-up services after regular health check-ups while offering consultation, education and guidance relating to healthcare. In addition, they cooperate with Daicel's corporate health insurance society in providing specific medical checkups and health guidance.

In order to assist employees who have developed mental health issues, steps have been taken to publish a reference manual and to actively share case studies as an additional form of support. Every effort is being made to avoid the occurrence and reoccurrence of any disorder with occupational health doctors and health nurses playing a central role in maintaining the health of employees. Under the slogan of creating workplaces where each employee can exert his or her individuality and capabilities, emphasis is being placed on ensuring a unified front to promote health throughout Daicel.

Initiatives of the Healthcare Committee

- Healthcare Support at the Daicel Group

As a part of efforts to provide comprehensive support within the Group, nurses address the daily health management needs of staff. At the same time, psychiatrists are employed on an as-needed basis to help employees who have developed a mental disorder.

- Providing Healthcare Education

Daicel implements training that takes into consideration the status of each employee in an effort to deepen awareness toward the importance of mental and physical health while increasing each employee's ability to cope with stress. Through these means, every effort is being made to maintain a bright and invigorating workplace.

- Utilizing a Psychiatrist Employed Exclusively by Daicel

Daicel began employing its own psychiatrist in 2007 in order to bolster its follow-up care system for employees who have developed mental disorders. This psychiatrist visits each workplace and arranges consultation services. In addition to supporting the implementation of workplace return programs and mental health training, steps are taken to educate health nurses and to provide information on mental health.

Outline of Care for Body and Mind

	Four Care Points (from Health, Labour and Welfare Ministry guidelines)			
	Self care: Identify and take care of issues on your own	Line care: Workplace and surrounding people provide care	Occupational health staff care: Company organizations provide care	Non-workplace resource care: Specialists provide care
First Line of Defense • Education & training • Improve environment • Prevention	Check on health of individuals and workplace Health newsletter Health education by public nurses	Train to improve communications ability (position-specific training)	Nurture public nurses Improve responsiveness to employees who have developed mental disorders	External courses
Second Line of Defense • Early discovery • Take appropriate steps to heal	Industrial physicians help overweight workers Help employees who have developed mental disorders	Group company healthcare support Set up Healthcare Committee		External institutions Phone and person-to-person counseling
Third Line of Defense • Support return to work	Mental health industrial physician System of abbreviated work hours for sick or injured employees			



Education provided by occupational health staff

Maintaining Communication with Local Communities

Nurturing Children for the Future

The Daicel Group works diligently to engage children's minds while showing them the magic and appeal of chemistry as well as the depth of our social contribution activities. We make every effort to nurture children for the future.

Participating in Children's Chemistry Experiment Shows

A series of children's chemistry experiment shows sponsored by the Japan Chemical Industry Association (JCIA) and other organizations were held at the Kobe Port Island Science Museum. As this was the first time to hold the event in the Kansai area, organizers were cautious in their expectations. Over the two-day period that the shows were conducted, however, the event attracted around 3,300 visitors greatly exceeding projections.

Daicel took part in the show putting forward the idea of making colorful beads. Children participated in dripping an alginate solution colored with poster paint into a beaker to make an assortment of brightly colored beads. Wearing protective eyewear, the children were quite animated in their excitement to create these colorful beads and energetically swirl them around each beaker. On the first day, some children had to be turned away as those seeking to participate exceeded the allowable number. On the second day, we set up an area so that children could also watch from a safe distance. We made it a point to give each child some beads that they could take home as a souvenir. Looking back, this was a rare opportunity for children to experience joy of chemistry. It was also a most fulfilling two days for members of the Central Research Center, who undertook meticulous preparations to ensure the event's success.



Making colorful beads

Participating in the Otake Ran-Ran College Summer School

The Otake Plant participated in the Otake Ran Ran College Summer School, organized by the Otake City Board of Education, and held at the Otake City Community Center. The event, which was conducted during the summer school holiday period, was designed to provide elementary school students with insight into the joys of chemistry through a series of practical experiments. This particular initiative attracted 19 students from schools in the Otake City area. Students ranged from 3rd to 6th grade in elementary school.

With employees who joined the Company in 2013 taking the

lead, four experiments were planned for the event. In an effort to convey to students chemistry's wonder and attraction, the series of experiments was dubbed "entering the world of magic" and included the mixing of liquids to create an illumination effect, a film that would erase letters written on a piece of paper when immersed in water and others. The children were in awe when confronted with this continuous stream of mysterious phenomena. The time flew by in an instant as children were immersed in the wonder and joy of chemistry.



Children enthralled by the magic of chemistry

Holding Plant Tours

The Daicel Group holds plant tours as a means to promote interaction and dialog with the community. The ultimate goal is to provide residents with a better understanding of the Group and its activities. Here, we provide details of two such initiatives.

Tatsuno Industry Rediscovery Tour

A total of 26 inner city students (both elementary and junior high) participated in the Tatsuno Industry Rediscovery Tour by visiting the Harima Plant.

Organized by Tatsuno City, this inaugural event has been designed to provide elementary and junior high school students with a history of the city's industrial development. To achieve this goal, students participate in a tour of workplaces and plants exemplifying both traditional and new industry operating in the area. Tatsuno City is well-known for its traditional soy sauce and thin wheat noodle industries. In contrast, our automobile airbag inflator production was appreciated as an advanced industry; Daicel was selected by the City as a representative of new industries.



Children visiting the Harima Plant

First, participating students received an explanation about the plant and its products. They were then taken on a tour of the inflator production line. This was the first time for the students to gain insight into the production process and it aroused their curiosity. Moving on to the training area, students were asked to participate in the assembly of products. It was our hope that by providing students with this firsthand experience, they would gain an appreciation that the learning process was not limited to school. We tried to convey the importance of acquiring skills and knowledge as an adult. Apparently, this portion of the tour was a big hit. Surveys received from students the following day indicated that the opportunity to participate in the production process left the strongest impression. It was extremely gratifying to learn that our intentions hit the mark.

Our participation in the tour program involved the support of a large number of employees including laboratory staff. In accommodating elementary and junior high school students, we paid particular attention to safety. The hard work that went into making the day a success was matched by the tireless efforts that went into preparation. From our own perspective, our selection into the program served to reaffirm our status within the industry and local community. We therefore take great pride in our participation.

Holding Plant Tours for Local Residents

Daicel places the utmost importance on fostering communication at its Kanzaki Plant. In addition to the Company's participation in

community events, every effort is made to interact with neighborhood companies in a bid to enhance mutual understanding with local communities. As one of new initiatives, Daicel invited six senior members of neighborhood associations from three surrounding districts to take part in a plant tour in 2013. The tour covered all areas of the plant including production lines as well as R&D laboratories. As a part of efforts to provide a deeper understanding of the operations of an urban-type plant, explanations were also provided on product development, the production process as well as the plant's environmental and safety measures.

After the tour, some time was set aside for the lively exchange of opinions, which led to a number of joint initiatives. Together with a neighborhood association, for example, we set up road traffic and safety signs along roads immediately outside the plant. Looking ahead, we will continue to hold plant tours as a means of promoting increased dialog with local communities.



Tour of the Kanzaki Plant

Activities in Support of Disaster-Stricken Areas

The Daicel Group is actively engaged in providing its support as a part of efforts to bring about the earliest possible recovery of areas affected by disasters. Here, we describe some of the Group's activities in the Philippines.

Donated Membrane Water Purification Equipment to the Philippines

In support of recovery efforts in Leyte Island (Barangay Bislag District, Tanauan City) in the Philippines, which was devastated by Typhoon No. 30, Daicel Membrane-Systems Ltd. donated membrane water purification equipment. This equipment is capable of purifying 350 liters of water per hour, which is sufficient to provide around 3,000 people with safe drinking water.

More than 100 local residents including children and the elderly attended the presentation ceremony. Also on hand were officers from the City Hall as well as the mayor of the village. Company officials received a hearty welcome with children waving Japanese flags as well as banners printed with our names. The ceremony was genuinely moving with the words of appreciation accentuated by a song sung by children.

Our efforts to provide reconstruction assistance were also acknowledged by the Philippines ambassador to Japan, who expressed his appreciation. These expressions of gratitude were an inspiration and reward for our ongoing efforts to provide disaster-relief support.



Receiving a hearty welcome from children



H.E. Manuel M. LOPEZ, ambassador of the Republic of the Philippines in Japan (left) and the president of Daicel Membrane-Systems, Hiroyuki Baba (right)

Upgrading CSR Foundations

Corporate Governance Framework

Daicel is a company with a Board of Corporate Auditors. Also, by welcoming external directors and allowing them to provide opinions and advice based on their expertise, the Company is working to ensure that the decisions made by its Board of Directors are appropriate and the execution of director duties is effectively supervised. The Company has also adopted an executive officer system. The adoption of the executive officer systems has enabled the Company to clearly separate its decision-making, supervisory and business execution functions. Such a clear division of roles has allowed us to bolster our business management structure and, consequently, corporate activities. In addition, Daicel has adopted an internal company system. Through this system, the Company is promoting various initiatives aimed at strengthening collaboration among its production, sales and R&D functions, improving productivity and strategic functions within its corporate divisions, and reestablishing its R&D structure.

Based on its corporate auditor system, the Company has established a corporate framework under which its Board of Directors makes management decisions in an efficient manner and fulfills its supervisory functions, and its Board of Corporate Auditors accomplishes its auditing functions. Such a framework has enabled us to keep reinforcing our corporate governance.

Board of Directors

Daicel's Board of Directors consists of eight directors, three of whom have been externally appointed. The Board of Directors meets, in principle, once a month to make decisions concerning important management issues in line with the regulations for the Board of Directors meetings. Furthermore, the Board of Directors supervises the execution of business and operating activities.

At Daicel, external directors are tasked with providing advice and supervisory functions based on their experience and expertise. Two of the Company's three external directors have been designated as independent directors, as defined under the Securities Listing Regulations of the Tokyo Stock Exchange in Japan.

The term of office for Daicel's directors is one year. Such a short

term of office enables Daicel shareholders to increase their involvement in the appointment of directors. At the same time, it allows us to better clarify the management responsibilities of our directors and thereby reinforce our corporate governance.

Board of Corporate Auditors

Daicel currently has four corporate auditors, two of whom have been externally appointed. All corporate auditors are required to attend Board of Directors' meetings. In addition, full-time corporate auditors are required to attend meetings of the Management Meeting, the Risk Management Committee and other important organizations, thereby auditing the overall management of corporate affairs.

Meanwhile, the Company's corporate auditors all together form the Board of Corporate Auditors. The Board of Corporate Auditors holds meetings to report, deliberate and make decisions on important issues relating to the Company's audits.

Corporate auditors regularly receive reports from the Company's internal auditing division and independent auditors. In addition, on an as needed basis, they collaborate—through the exchange of information and opinions—with the internal auditing division and the independent auditors in promoting audits of the Company. The two external corporate auditors have been designated as independent corporate auditors, as defined under the Securities Listing Regulations of the Tokyo Stock Exchange in Japan.

Also, as an organization to support audits by corporate auditors, the Company has established the Office of Corporate Auditors. The Office of Corporate Auditors has its own dedicated staff which is independent from the business divisions.

Management Meeting

Daicel has established the Management Meeting as a body to have deliberations and make decisions prior to its president implementing the basic corporate management policies formulated by the Board of Directors. The Management Meeting consists of the president, directors (excluding external directors), corporate auditors (excluding external corporate auditors) and the executive officers selected by the president as its members. The Management Meeting convenes, in principle, twice a month.

Nomination and Compensation Committee

A Nomination and Compensation Committee has been established. This committee is chaired by an external director and is comprised of external directors as well as the Company's chairman and president. In addition to taking into consideration advice from the chairperson of the Board of Directors, the Nomination and Compensation Committee reports on the nomination of and compensation paid to directors and executive officers.

Internal Control Systems

In accordance with its basic policies concerning the development of internal control systems formulated by the Board of Directors, the Daicel Group works to administer and enhance its efficient and effective internal control systems.

We believe that these systems help the Daicel Group sustain steady growth. To accurately grasp the status of the entire Group and as a forum to discuss initiatives aimed at ensuring the effective functioning of internal control systems, Daicel has established an Internal Control Council.

Response to the Financial Instruments and Exchange Law (Internal Control Reporting System)

The Auditing Office assesses the effectiveness of the Company's internal control over financial reporting in order to prepare and submit a report to the Financial Services Agency (FSA) every year. Through these activities, the Auditing Office is striving to ensure the reliability and transparency of Daicel's financial reporting.

Daicel's report on internal control over financial reporting for fiscal 2013 is disclosed on EDINET, a corporate disclosure system established by the FSA at the following

<http://info.edinet-fsa.go.jp/> (Japanese language only)

Risk Management Initiatives

Daicel established the Risk Management Committee in 2006 as an organization to coordinate and promote Companywide risk management activities. Since its establishment, the Risk Management Committee has guided the entire Company in aggressively conducting risk management activities.

Each department within the Company is taking stock of potential risks that could have a major impact on Daicel's ability to achieve its business targets.

To fully assess the situation, the Company's risk countermeasures and initiatives are entered into an intranet database. Countermeasures and initiatives are designed to prevent the incidence of risk or to reduce any subsequent impact. Each department assigns a priority level to each risk and carries out countermeasures accordingly. Steps are also taken to regularly update the status and progress of countermeasure implementation, and any newly identified risks are promptly entered into the database. Utilizing this database, Daicel pursues a Plan-Do-Check-Act (PDCA) cycle in conjunction with the risk management activities of each department. Similar risk management activities are undertaken by Group companies in Japan and overseas*.

The Risk Management Committee periodically confirms the status of countermeasure implementation by each department and Group company. Recommendations and support are then provided as considered appropriate. In addition, summary activity reports are

submitted by each department at the end of each fiscal year. This process enables all appropriate parties to fully grasp the status of risk.

*Certain overseas Group companies are excluded from using the database.

Communication with Shareholders and Investors

IR Activities

Extending beyond the timely disclosure of information, Daicel adopts an aggressive approach toward its IR activities. In fiscal 2013, the Company held briefing sessions, including conference calls, for institutional investors and analysts on three occasions to present its interim, third quarter, and full fiscal year results. From fiscal 2014, the Company plans to hold presentations on a quarterly basis shortly after disclosing details of its quarterly results. Through a series of individual interviews as well as visits undertaken by the Company, Daicel strives actively to promote communication and to ensure that all appropriate parties gain a deeper understanding of the Company and its activities. Moreover, Daicel maintains a designated IR page on its website where it posts various pertinent documents including its Securities Report, Financial Results Report, Briefing Session and presentation materials, Annual Report and Shareholders' Report in a timely manner. At the same time, the Company is upgrading and expanding its information disclosure aimed at individual investors.

<http://www.daicel.com/en/ir/irlibrary.html>

Presentation of the New Medium-Term Plan to Analysts

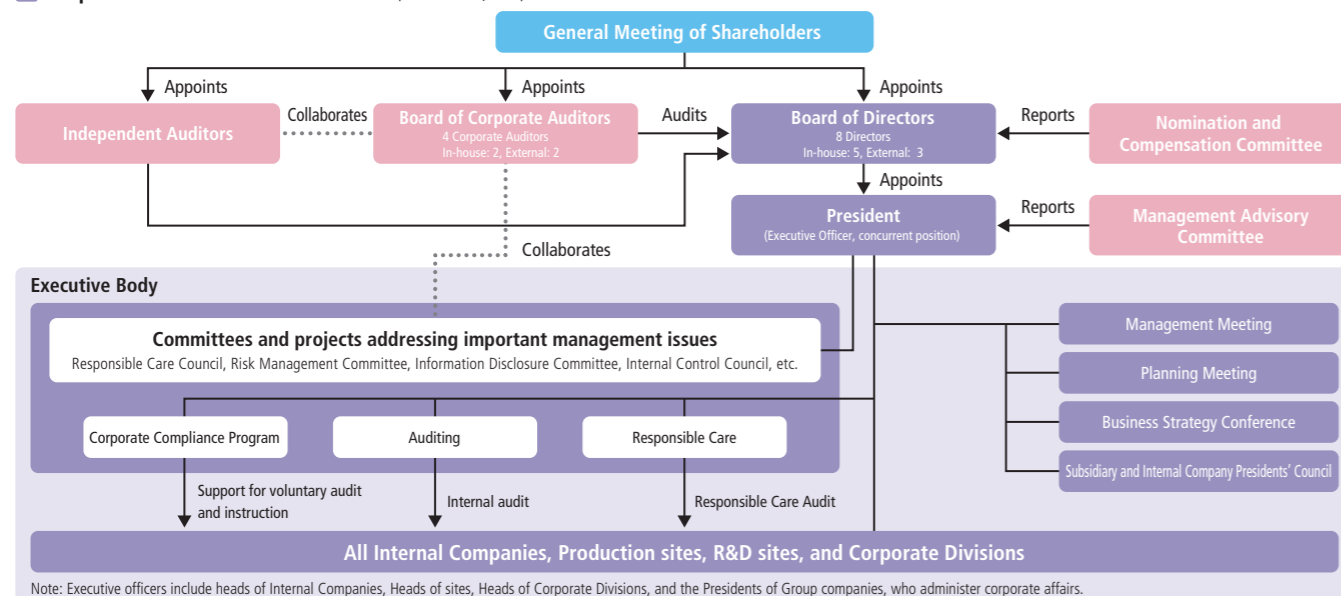
On February 25, 2014, Daicel held a presentation meeting to provide institutional investors and analysts with details of the Company's new Medium-Term Plan. The 3D-II Plan, which begins in fiscal 2014, covers an important period during which the Company will add new value to the design and initiative phase of the 3D-I Plan to step-up and take a significant leap forward. At the same time, the 3D-II Plan will serve as a vital link to Daicel's 3D-III Plan, which is being positioned as a final step to an achievement to the long term plan and delivery phase. Positioning operating safety and the delivery of reliable and high-quality products as the indispensable prerequisites of its business base as a manufacturer, the president outlined the five priority themes of the new plan: (1) pursue the further growth of core businesses; (2) develop new businesses; (3) promote global development; (4) strengthen the production structure, and; (5) bolster corporate governance. Fielding lively questions from those attending the meeting, this briefing session was an excellent opportunity for the president and directors of each business segment to provide detailed explanations and to deepen understanding of the plan.

Annual Report

Daicel publishes an English language annual report mainly for the benefit of overseas investors. A copy is also posted on the Company's homepage. The 2013 report was titled "Enhancing our platform for the future" and included a progress report under the 3D-I Medium-Term Plan, which ended at the close of fiscal 2013, through an interview with the president, an overview of each business segment, and details of pertinent topics for the year. Each year every emphasis is placed on providing a report that helps readers gain a deeper understanding of the Group.



→ Corporate Governance Framework (As of June 19, 2014)



Corporate Ethics (Compliance) Initiatives

The Daicel Group has positioned corporate ethics as an essential component of the systematic efforts of each department and Group company to engage in CSR activities.

Corporate Ethics Management System

Adherence by each employee to corporate ethics is an essential management issue, and the Daicel Group is accordingly promoting corporate ethics Groupwide.

These efforts to promote corporate ethics are not temporary measures. They are conducted on an ongoing basis. With this in mind, we have formulated Corporate Ethics Management Regulations for the Company. In addition, each department has established its own Corporate Ethics Management System based on processes that incorporate the Plan-Do-Check-Action (PDCA) cycle, and through activities involving the participation of all employees, we are striving to maintain and improve this system. We have also taken steps to introduce this PDCA cycle at each Group company.

Promotion System

Daicel established the Corporate Compliance Program Division to promote corporate ethics activities and appointed the Company's representative director as its Corporate Compliance Officer.

Each Daicel department and Group company appoints a CSR Promotion Chief to lead various corporate ethics- and compliance-related activities.

The Corporate Compliance Program Division provides support to the Company and each Group company. The Division confirms the status and progress of each corporate ethics activity plan and helps to resolve various issues specific to each department and workplace through a process of interactive dialogue and opinion exchange. Considerable energies are directed toward supporting efforts that raise awareness toward compliance at each workplace. In fiscal 2013, steps were taken to post news updates, case studies, a four-panel cartoon, and other materials on the intranet, for each workplace to use as compliance materials.

With respect to specific compliance issues, individual committees are established in accordance with each set of relevant rules and regulations. These committees consider and help resolve issues.

Examples of Committees

Regulation	Committee	Goals
Regulations on Export Controls	Export Controls Committee	To ensure that the Company and its Group companies do not engage in illegal export activities or the provision of goods and technologies that are prohibited under security trade-related laws and regulations for the purpose of maintaining international peace and security
Regulations on Personal Information Protection	Personal Information Protection Committee	To acquire, manage and use personal information appropriately
Regulations on Information Disclosure	Information Disclosure Committee	To disclose corporate information appropriately

Legal Compliance System

Daicel has established a Legal Compliance System. Under this system, corporate departments are designated as organizations in charge of ensuring compliance with laws and regulations relating to their respective operations. More specifically, designated corporate departments are tasked with obtaining information regarding related laws and regulations and providing that information to other departments that may be affected. There are 13 corporate departments, including the Legal Group, designated as organizations responsible for compliance. These departments use the intranet to provide employees with information on revisions to laws and regulations as well as guidelines while also providing education materials.

Utilizing a checklist, each department and Group company in Japan voluntarily conducts a compliance review once each year. In addition to reflecting on the status of compliance at each workplace, this initiative is designed to uncover any issues.

Education and Training Programs

Daicel systematically provides corporate ethics training at various levels, including new graduate recruits, position-specific corporate ethics training when an employee is promoted, directors and presidents of Group companies. In addition to reconfirming the Company's concept and definition of CSR, training at various levels provides examples of misconduct by Daicel Group as well as other companies. These examples form the basis for discussions and again highlight the importance of corporate ethics. The Corporate Compliance Program Division takes the lead in promoting corporate ethics training at Group companies in Japan.

Training was conducted at a total of five Group companies in fiscal 2013. Also, in line with its technician training programs aimed at familiarizing technicians and engineers with the basic techniques required for fulfilling a manufacturer's responsibility (please refer to page 22)—achieving the stable supply of safe products—the Company offers educational programs in such areas a legal compliance.

Individual departments are tasked with obtaining information regarding the laws and regulations directly related to their operations and educating their personnel. In addition, organizations responsible for compliance with laws and regulations continue to hold in-house seminars. The Personnel Group takes a central role in holding in-house seminars open to all employees seeking to attend. Moreover, in-house seminars based on specific themes are held at the request of the Company's departments as well as Group companies.

Implementation Themes Extracted from In-house Seminars

Act against the Delay of Payment of Subcontract Proceeds, etc., to Subcontractors	Intellectual Property Rights
Chemical management	An explanation and consultation meetings covering the Stamp Duty Act
Countermeasures against Antisocial Forces	

Whistleblowing System

With the intent of establishing a system to protect whistleblowers who act in the public interest, Daicel is taking steps to ensure that the employees of each workplace are able to issue reports and hold consultations without difficulty. However, for circumstances where corporate ethics-related issues cannot easily be resolved at the workplace through ordinary reporting to supervisors, the Company has put in place the Corporate Ethics Help Line. This Help Line is not only an in-house system. Daicel has also established an external counterpart through which employees can consult and raise issues with external parties. In this manner, the Company is endeavoring to create a system that is easy-to-use by all employees.

Through the administration of the Corporate Ethics Help Line, whistleblowers and those who request consultations must be protected from the consequences of their actions. Daicel has accordingly put in place the following Corporate Ethics Management Guidelines. Steps are being taken to ensure that these guidelines are strictly upheld.

1. The personal information and privacy of whistleblowers and those who request consultations must be protected;
2. Adverse treatment in response to whistleblowers and those who request consultations must be prohibited; and
3. Results related to investigations must be fed back to whistleblowers and those who requested consultations.

Similar in-house and external help lines are established in Group companies in Japan to protect whistleblowers and those who request consultations. In addition, drawing on the experience gained in Japan, whistleblowing systems are also introduced at overseas Group companies as a basic platform to protect individual who make reports and seek consultations.

The Responsible Care Initiative

Responsible Care: Basic Policies and Implementation System

We will strive to implement the Responsible Care Initiative throughout our operations in order to contribute to a viable sustainable society.

In 1995, Daicel established its Basic Policies for Responsible Care (RC) based on the guiding principles for improvement of environmental, health and safety conditions of the Japan Chemical Industry Association. Daicel is deeply aware of its responsibility as a corporate citizen to protect the environment and ensure the

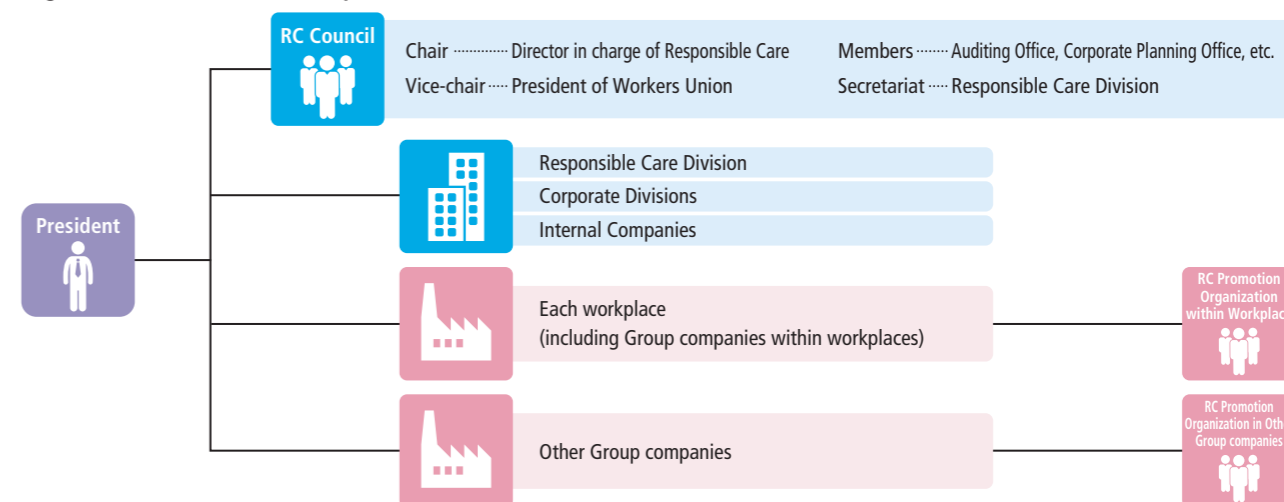
health and safety of all those involved with the Company in whatever capacity and every stage of its operations—from the design of products to their manufacture and disposal. With this in mind, the Daicel Group is promoting across-the-board RC activities.

Basic Policies for Responsible Care

In all aspects of its business operations, Daicel is making the utmost efforts to ensure environmental preservation, process safety and disaster prevention, occupational health and safety, chemical and product safety, distribution safety and dialogue with society in accordance with the Responsible Care Standards of the Japan Chemical Industry Association (JCIA). Daicel is making steady and continuous progress in all of these areas.

1. While strictly abiding by laws and regulations currently in effect, in its business operations, Daicel will strive to uphold the principles of environmental preservation and attention to safety. All employees will be made aware of policy measures and their assistance will be secured during implementation to ensure sustained effort.
2. Daicel will conduct a thorough assessment of its new products' impact on health, safety, and the environment at every stage—development, manufacture, distribution, use, and disposal—prior to installing facilities for their production and introducing them to the market. Daicel will also strive to produce and offer products that take people's health, safety, and the environment into consideration.
3. Daicel will collect and maintain a database of information regarding environmental and safety issues that relate to its products and the substances it handles. To ensure their safe handling and use, the Company will provide all necessary information to users and distributors.
4. Daicel will promote raw material-saving and energy-saving initiatives as well as the recycling of waste products and restraints on their production to protect the environment and economize on the use of limited raw materials.
5. Daicel will seek to constantly raise safety standards to achieve a no-accident, no-disaster record at the manufacturing stage. The Company will ensure that appropriate emergency response procedures are in place, training is undertaken, and, in the event of an accident, appropriate countermeasures are taken at once.
6. Daicel will research, develop, and introduce technologies and products that are healthier, safer, and more environment-friendly than ever.
7. Daicel pledges to strictly abide by regulations in force in the relevant jurisdictions and give due attention to the environmental and safety concerns of the other parties involved when engaging in international transactions involving chemical products, conducting international business, and transferring technologies abroad.
8. Daicel will actively lead and support the environment- and safety-related activities of the Daicel Group companies with the aim of securing a better and safer environment for all.
9. Daicel will participate in and cooperate with environmental preservation activities undertaken by the communities in which it operates and seek to gain the trust and understanding of society as a whole by establishing a dialogue with it on safety and environmental matters.
10. Daicel will deepen its understanding and awareness of the importance of biodiversity conservation and promote biodiversity-friendly activities so that generations to come will be able to receive the benefits of biodiversity.

Organizational Structure for Responsible Care



Environmental Preservation

The Energy Conservation Committee is the centerpiece of the Group's efforts to conserve energy. As one of several initiatives undertaken by the committee, steps have been taken to establish innovative energy-saving projects. The Daicel Group is, for example, entering a demonstration and verification phase of distillation tower energy-saving technologies.

Daicel is a participant in the Nippon Keidanren's Commitment to a Low Carbon Society, which was unveiled by Japan Business Federation on January 17, 2013. With the Energy Conservation Committee taking the lead, Daicel is working to achieve CO₂ emission reduction targets for fiscal 2020.

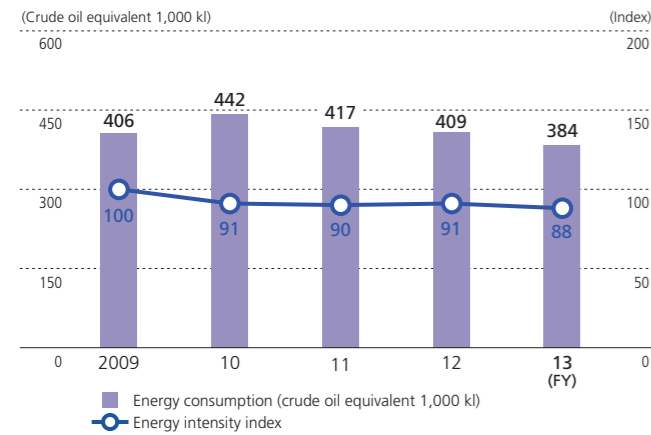
In fiscal 2013, the cogeneration¹⁾ facility constructed at Aboshi Plant operated at full capacity throughout the year. At the same time, the Group as a whole worked diligently to engage in energy-saving activities. This included the collection of exhaust heat as well as efforts to conserve steam and electric power. Thanks to these initiatives, Daicel was able to reduce energy consumption by 6% compared with the previous fiscal year. The Daicel Group

was also successful in achieving 6% year-on-year energy conservation while cutting back energy consumption by the crude oil equivalent of 34,000 kiloliters.

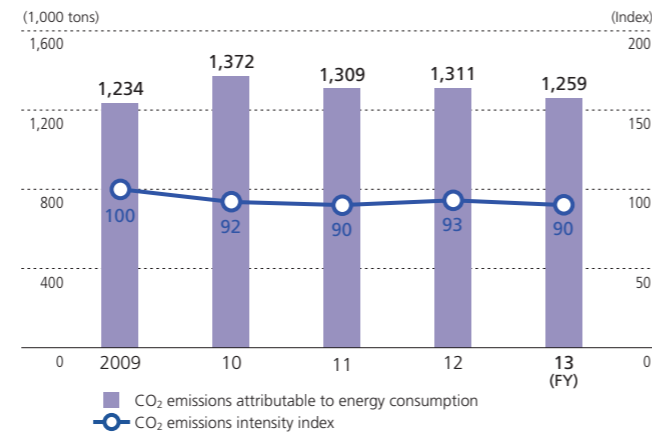
In addition, Daicel improved both its energy intensity²⁾ index and energy-based CO₂ emission intensity index³⁾ by 3 points compared with the previous fiscal year.

Daicel will continue efforts to reduce CO₂ emissions and promote energy conservation through grassroots energy conservation activities. Among a host of endeavors, the Company will adopt new technologies that have been established under innovative energy-saving projects.

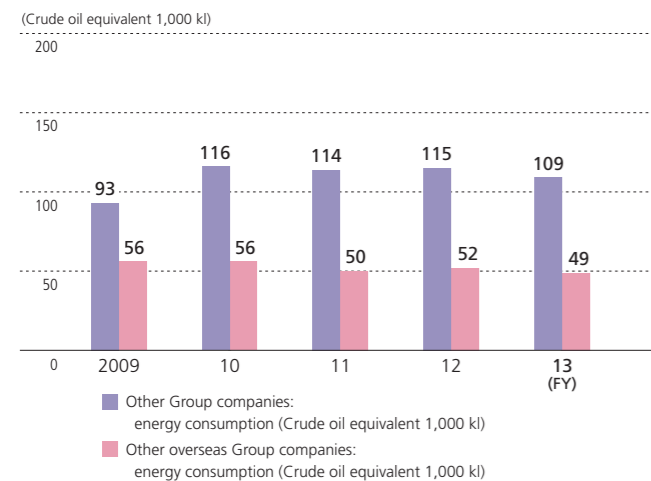
Daicel's Energy Consumption and Intensity Index



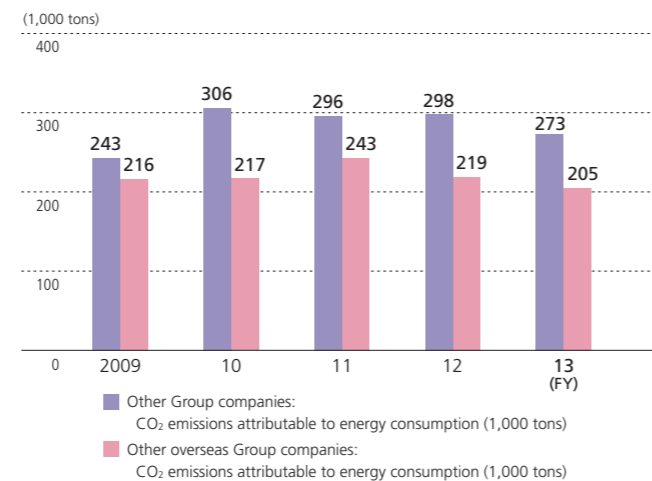
Daicel's CO₂ Emissions Attributable to Energy Consumption and CO₂ Emissions Intensity Index



Other/Overseas Group Companies' Energy Consumption



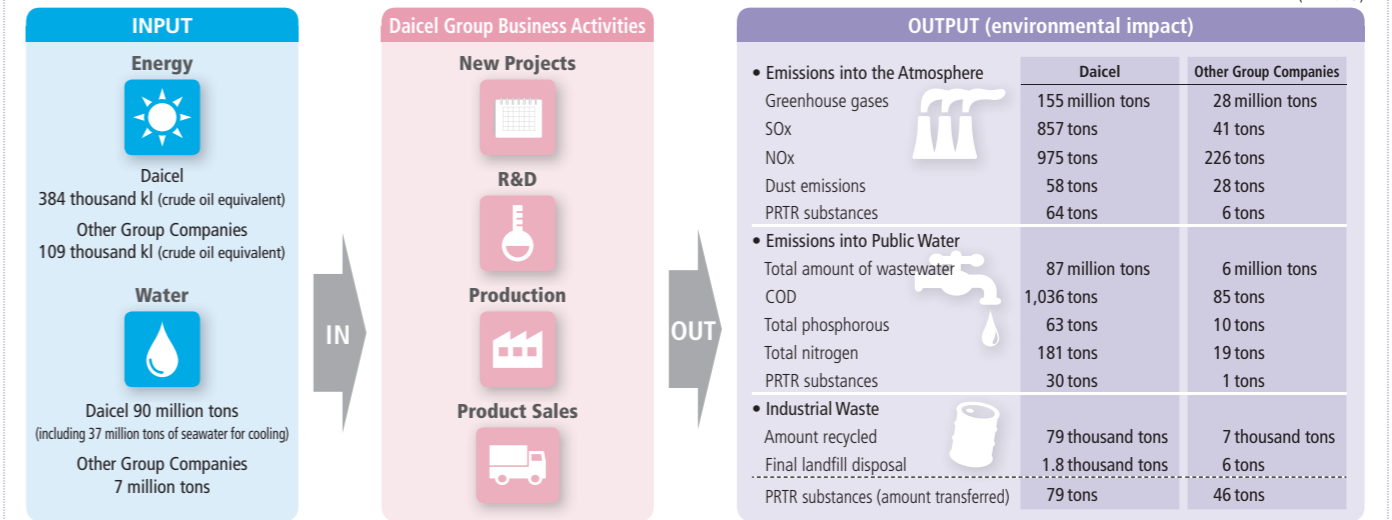
Other/Overseas Group Company CO₂ Emissions Attributable to Energy Consumption



♂ What is...?

- Cogeneration:** A high-efficiency energy supply system that uses exhaust heat such as that from boilers to produce electric power and steam at the same time.
- Energy intensity:** Energy intensity is defined as the total consumption of electricity, thermal energy and fuels required for manufacturing a specified unit of product. Lower energy intensity indicates higher production efficiency—in other words, greater energy efficiency—which, in turn, presents greater potential for preventing global warming.
- Energy intensity index:** Energy intensity index can be obtained by the following formula: Energy intensity index for a year = Energy intensity for that year / Energy intensity in a standard year × 100

Business Activities and Their Environmental Impact



For details regarding the energy consumption of overseas Group companies, please refer to page 32. Information regarding water consumption, greenhouse gas emissions, the total amount of wastewater, the amount recycled, and the amount of disposal by landfill can be found in the CSR 2014 Report <http://www.daicel.com/en/csr/library.html>

Distribution Safety

We are continuing activities aimed at minimizing logistics-related troubles.

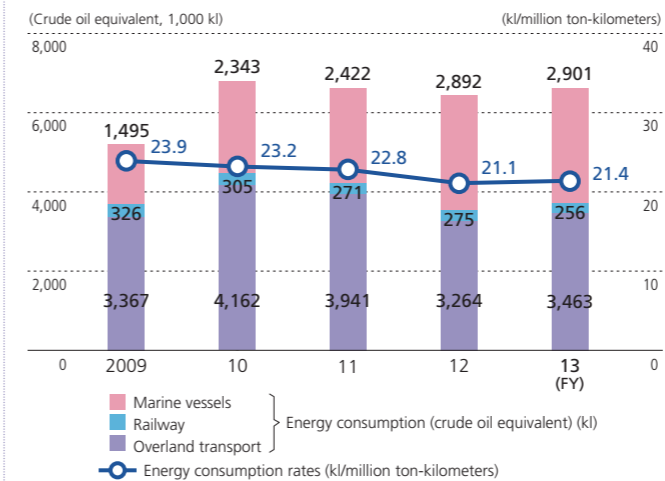
Daicel Logistics Service Co., Ltd., which is responsible for the distribution function of the Daicel Group, has put in place a basic philosophy that emphasizes efforts to garner the trust and satisfaction of society by providing services that fulfill the needs of its customers anywhere and at any time. Guided by this philosophy, the company works diligently to enhance transportation quality and safety.

In fiscal 2013, Daicel Logistics Service collaborated with its transportation contract partner companies, and by working mainly through safety and quality cooperation meetings as well as committees aimed at preventing accidents relating to products took

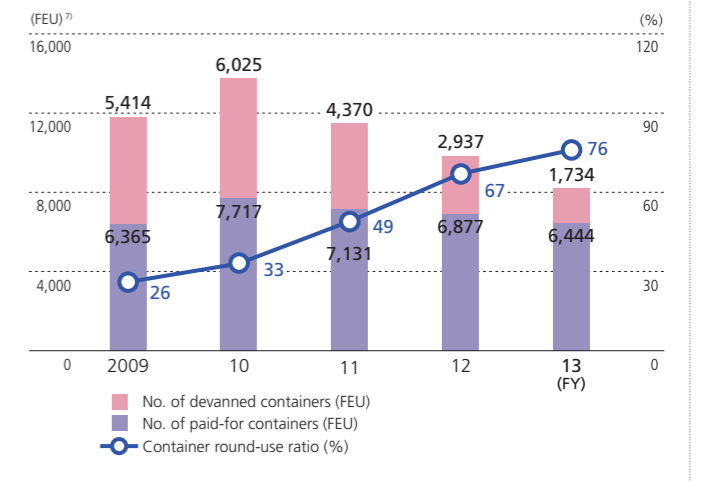
steps to prevent the recurrence of any issues. Through these means, the company succeeded in improving results in both logistics-related troubles and product-related accidents. In fiscal 2014, Daicel Logistics Service will continue to collaborate with partner companies in order to definitively reduce the incidence of trouble.

During the fiscal year under review, every effort was made to save energy in the distribution of products by promoting such initiatives as a modal shift⁴⁾ and container round use⁵⁾ while maximizing the transportation unit. Energy consumption rates remained at the same level as the previous fiscal year, however, because of the slight increase in the land transportation dependency rate.

Daicel's Energy Consumption and Energy Consumption Rates in Logistics Operations



Numbers of Paid-For and Devanned Containers and Container Round Use Ratio⁶⁾ (FEU)



♂ What is...?

- Modal shift:** The shift from truck-based goods transportation to more environmentally friendly marine and railway transportation.
- Container Round Use:** The practice of using devanned import containers for exports, without returning them to the shipping companies. By omitting the process of returning a devanned empty container and getting a new empty container for vaning, the practice both reduces CO₂ emissions and saves on transportation costs.
- Container Round Use Ratio:** The ratio of containers that were used for imports and where efforts were made to re-use for exports against the number of export containers.
- FEU (Forty-foot equivalent unit):** Conversion figure for a 40ft container.

Occupational Health and Safety

The number of labor accidents with/without lost workdays for all workplaces increased by five compared with fiscal 2012.

At all of its workplaces, Daicel is promoting various activities to upgrade the foundation of production sites. For example, the Company is promoting 3S (*Seiri* (tidying), *seiton* (putting everything in order) and *seisou* (cleaning)) activities, crisis-identification activities⁸⁾ and hazard prediction activities. Rallying to the call "to create a better future by learning from the lessons of the past," we are working closely with the labor union to utilize such key tools as the Safety Alert Database and compilations of examples of labor accidents to prevent the recurrence of incidents and prevent similar accidents.

However, the Company's labor accident frequency rate⁹⁾ per millions hours was 2.04 in fiscal 2013 and the number of labor accidents with/without lost workdays increased by five compared with the previous fiscal year. The vast majority of these accidents were related to irregular operations including construction work.

In fiscal 2014, the Daicel Group will continue to upgrade the foundation of its production sites while promoting the basic concept of "creating a better future by leaning from the lessons of

the past." At the same time, we will strengthen safety measures relating to irregular operations including construction work and lift the level of safety in an effort to eliminate labor accidents.

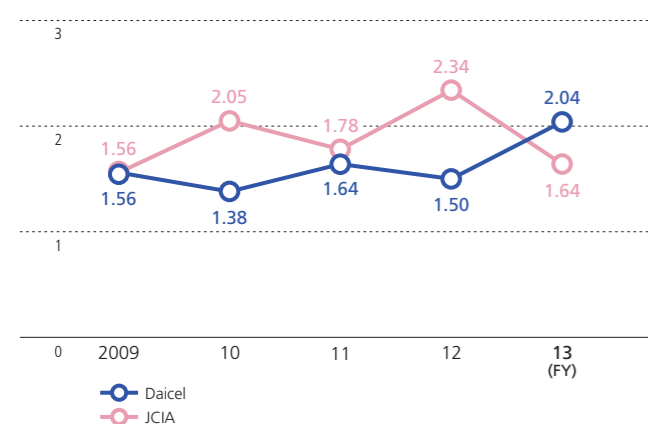
In order to foster a culture that emphasizes workplace safety, the Group provides its employees with education that incorporates a historical perspective on the background and purpose of various rules and regulations at its new Operation Training Center. This education is conducted for all staff serving as instructors from assistant managers through to general managers.

For other Group companies, there were seven labor accidents with/without lost workdays, which was the same number as the previous fiscal year. On the other hand, the number of accidents at overseas Group companies improved substantially, down by nine compared with the previous fiscal year. In fiscal 2014, we will continue to put in place the necessary mechanisms to secure workplace safety and ensure that this mechanism is adopted by other and overseas Group companies.

→ Labor Accidents at Daicel: Accompanied/Not Accompanied by Lost Workdays (including partner companies on plant premises)



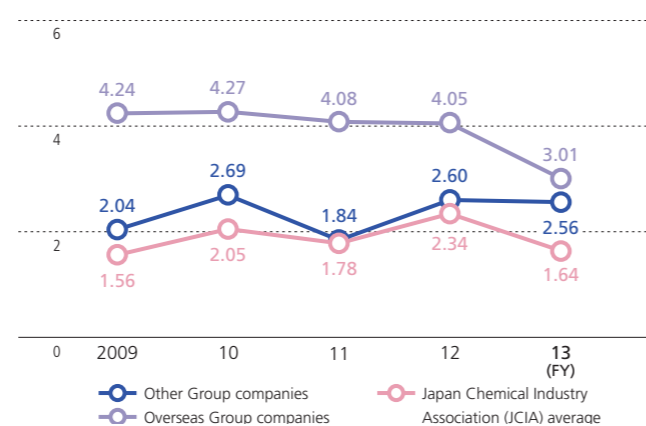
→ Labor Accident Frequency Rate at Daicel: Accompanied/Not Accompanied by Lost Workdays (including partner companies on plant premises)



→ Labor Accidents at Other/Overseas Group Companies: Accompanied/Not Accompanied by Lost Workdays



→ Labor Accident Frequency Rate at Other/Overseas Group Companies: Accompanied/Not Accompanied by Lost Workdays



♂ What is...?

8) Hazard prediction: Near-accident and near-trouble events are recorded to identify the causes of these events. Hazard prediction activities help eliminate causes of accidents and troubles to create safer working environments.

9) Labor accident frequency rate: A safety index to show the labor accident occurrence rate calculated with the following formula: Accident frequency rate = Number of people involved in labor accidents/Number of total extra working hours (unit: millions of hours)

Process Safety and Disaster Prevention

Carrying on from the previous fiscal year, Daicel again achieved zero serious accidents in fiscal 2013. The Company has systematically promoted initiatives in order to address earthquake, tsunami, liquefaction and other disasters.

Process Safety and Disaster Prevention Countermeasures

Daicel is promoting a variety of initiatives including a total EHS assessment system, general operability studies (OPS)¹⁰⁾ and a full review of potential risks all with the aim of promoting stable plant operations and reducing plant troubles and risks.

In fiscal 2013, the Daicel Group took steps to ascertain the status of its self-reactive and hazardous compound substances while reinforcing its monitoring methods for anomalies, determination criteria as well as its response measures. The Group also conducted training to ensure the timely notification of abnormal occurrences. These initiatives were in response to a notice regarding strict adherence to the prevention of accidents at chemicals plants received from the Fire and Disaster Manager Agency and based on accidents at other the chemical plants of other companies.

Based on the process safety and disaster prevention guidelines issued by the Japan Chemicals Industry Association (JCIA), Daicel undertook to reconfirm and verify its level of process safety. Moreover, the Company took part in activities aimed at enhancing safety run by the Japan Society for Safety Engineering, an organization set up for the purpose of bolstering safety in the process industry. At the same time, we conducted an evaluation of the safety capabilities of our Ohtake Plant.

Regrettably, incidents encompassing a small fire and leakage occurred during fiscal 2013. While areas outside each plant where these incidents occurred were unaffected, Daicel recognizes each incident as a serious matter. In addition to putting in place additional preventive measures, we have implemented countermeasures across all of our plants.

Earthquake, Tsunami and Liquefaction Countermeasures

In fiscal 2013, Daicel undertook an assessment of the risks associated with earthquakes, tsunamis and liquefaction. At the same time, the Company completed an analysis of the seismic conditions of its facilities while systematically carrying out structural reinforcement and seismic-resistance work. Moreover, we introduced employee safety



By Masahiko Ueda

Production Department, Production Group, Kanzaki Plant
Daicel Value Coating Ltd.



General Emergency Drills

Each of the Company's plants regularly plans and conducts general emergency drills. These drills are coordinated with the efforts of public fire departments and self-defense fire brigades. In addition, public fire departments and local companies come together to conduct joint emergency drills in a spirit of mutual support and assistance.



TOPICS

♂ What is...?

10) General operability studies: Daicel's proprietary method of standardizing operations. A method for comprehensively summarizing decision-making methods with respect to the determination and operation of all possible plant conditions and situations, drawing on plant operating sensor and alarm information.

confirmation and emergency call systems while adopting the use of satellite mobile communications. All of these initiatives were conducted on a Groupwide basis.

Based on evacuation, reserve supplies and other guidelines associated with such disasters as earthquakes and tsunamis, we continued to bolster our emergency earthquake alert systems and build up supplies of food, daily essentials and disaster-prevention goods in line with plans.

Emergency Drills

The Daicel Group regularly conducts emergency safety drills in accordance with the annual plans of each place of business. These drills are designed to ensure that all employees are well versed in lifesaving as well as fire extinguishing procedures in the event of an emergency, and are capable of minimizing any impact on neighboring areas and responding appropriately to the needs of local residents in a timely manner.

Complementing these efforts, Daicel also periodically conducts Groupwide disaster countermeasure exercises that address the possibility of a widespread disaster. In fiscal 2013, exercises were conducted at the Company's Tokyo and Osaka head offices based on the assumption of a major disaster spread across both areas. Those participating in each exercise were not provided with advance warning. In this manner, steps were taken to ensure that exercises were undertaken on as practical a basis as was possible.

In fiscal 2014, we will continue to implement measures aimed at preventing accidents relating to fires, explosions and leakage. We will also work diligently to mitigate the risks associated with earthquakes and tsunamis.

Awards and Citations

❖ The Harima Plant Receives the Excellent Member Award from the Himeji Industrial Physician Activity Promotion Liaison Council

The Himeji Industrial Physician Activity Promotion Liaison Council was established to promote the activities of industrial physicians in the Seiban area including Himeji and Tatsuno cities. Each year two Excellent Member awards are presented to companies and industrial physicians who contribute to the further development and improvement of occupational health management at various worksites in close collaboration with the Council. The Harima Plant as well as industrial physician, Yoshihiro Kishino, were selected as recipients of the award in fiscal 2013. Letters of appreciation were presented at a conference held by the Council on July 25.



❖ Commendation from the Governor of Niigata Prefecture Following Completion of a Safety Competition

Mr. Tsuchida, a member of the Energy Section at the Company's Arai Plant, received a commendation from the governor of Niigata Prefecture following completion of a safety competition. This commendation recognizes Mr. Tsuchida's many years of hard work to ensure safety through a wide range of activities including the maintenance and management of high-pressure gas and fire-fighting hazardous materials.



Chemical and Product Safety

Reducing Volatile Organic Compound (VOC) Emissions

Despite the ongoing promotion in fiscal 2013 of improvements in processes that use such main VOC substances as acetone and toluene, emissions increased by 15 tons compared with the previous fiscal year. (29% reduction in fiscal 2013 compared with fiscal 2000). Looking ahead, we will continue to promote reduction measures.

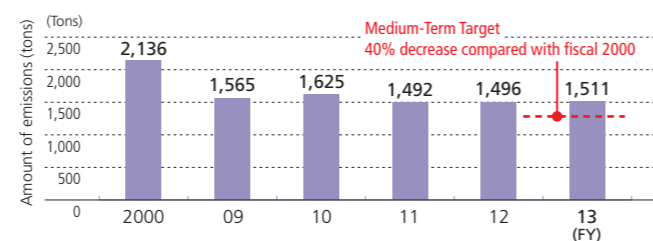
Management of PRTR¹¹⁾ Substance Emissions and Transfers, Reduction of Their Emissions

Daicel works to manage the transfer as well as to both manage and reduce the emission of the class 1 and class 2 designated chemical substances specified under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register [PRTR]) as well as of substances specified independently by the JCIA.

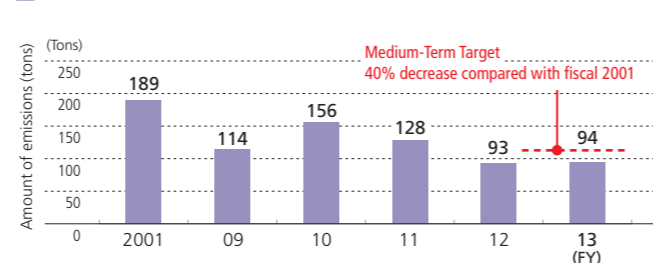
In fiscal 2013, progress was made with the testing of new conditions for the operation of activated sludge treatment facilities relating to wastewater systems. Total water and atmospheric emissions saw a slight increase compared with the previous fiscal year. This was largely attributable to higher emissions of atmospheric substances. Despite this slight increase, the Company achieved its medium-term reduction target of 40% by fiscal 2013 for substances that fall within the scope of PRTR requirements compared with fiscal 2001. In the next fiscal year, we will endeavor to further enhance

the efficiency of operations at wastewater treatment facilities. We will promote specific reduction measures aimed at lowering emissions compared with the current fiscal year's results.

Daicel's VOC Emissions



PRTR Substance Emissions



Quality Assurance

All of Daicel's plants have acquired ISO 9001 certification, a set of international standards for quality management systems. Each plant constantly works to offer products that satisfy customers and meet their needs.

Each internal company is responsible for the quality of their products. Relevant officials from the Company's plants and corporate departments attend regular quality assurance meetings held at each internal company to share information, including customer requests. Moreover each internal company works closely with Daicel's headquarters and plants to leverage the Group's quality management system and thus ensure the maintenance and improvement of product quality across the Group.

Furthermore, in an effort to deliver products that fully satisfy customers, we are addressing the issue of acquiring certifications of quality management standards as well as meeting the legal requirements in each field for the following product lineups:

• Airbag inflators: Acquired ISO/TS 16949 certification (quality management system standards for the automobile industry)

• Special machinery products: Acquired JISQ 9100 certification (quality management system standards for the aerospace industry)

• Medical and pharmaceutical products: Implementing production and quality control under structural and administrative standards based on Good Manufacturing Practice (GMP) rules for the manufacturing, management and quality control of pharmaceutical products

Daicel set up the Quality Audit Group within its Production Technology Office on December 1, 2013 ahead of its new 3D-II Medium-Term Plan, which begins in fiscal 2014. This initiative is aimed at further strengthening quality assurance measures, which form an integral component of the Company's business base. With this group taking the lead, every effort will be made to improve quality assurance management systems and to increase the overall Daicel Group's level of quality assurance.

Status of Product Quality Management System Certification

Name of Business Site/Group Company	Certificate No.	Certificate/Edition	Acquisition Date
Daicel Aboshi Plant, Himeji Production Sector	JQA-0953	ISO9001:2008	Aug. 1995
Daicel Ohtake Plant	JQA-1023	ISO9001:2008	Oct. 1995
Daicel Arai Plant	JCQA-0136	ISO9001:2008	June 1996
Daicel Aerospace & Defense Systems Division, Aerospace & Defense System/Safety Systems Company	BSK0027 BSKA0028	JISQ9100:2009 JISQ9001:2008	July 1998 Apr. 1999
Daicel MSD Division, Aerospace & Defense Systems/Safety Systems Company	JQA-2448	ISO9001:2008	June 2003
Daicel Safety Systems Inc.	JQA-AU0033	ISO/TS16949:2009	Apr. 2004
Hirohata Plant, Daicel Polymer Ltd.	JQA-QM4647	ISO9001:2008	Apr. 2000
Polyplastics Co., Ltd.	JQA-1283	ISO9001:2008	May 1996
R&D Center/Fuji Plant	JQA-AU0071	ISO/TS16949:2009	Nov. 2004
Kanzaki Plant, Daicel Value Coating Ltd.	JCQA-0530	ISO9001:2008	Aug. 1999
Aboshi Plant, Daicel-Evonik Ltd.	JQA-2481	ISO9001:2008	July 1998
Daicel Pack Systems Ltd.	JQA-QMA-11465	ISO9001:2008	July 2004
Nagano Plant, DM Novafoam, Ltd.	ASR-Q1169	ISO9001:2008	Feb. 2003
Okayama Plant, DM Novafoam, Ltd.	ASR-Q1170	ISO9001:2008	June 2004
Aboshi Plant, Daicel Membrane-Systems Ltd.	JQA-1577	ISO9001:2008	Feb. 1997
Dainichi Chemical Corp.	JCQA-0689	ISO9001:2008	Apr. 2000
Daicel Logistics Service Co., Ltd.	JCQA-0568	ISO9001:2008	Oct. 1999
Japan Shotshell Ltd.	JQA-QMA13973	ISO9001:2008	Aug. 2009
Daicel Safety Systems America, LLC	TS86144	ISO/TS16949:2009	Dec. 2005
Daicel Safety Technologies America, Inc.	FM-502734	ISO9001:2008	Dec. 2005
Daicel Safety Tube Processing, Inc.	FM-587183	ISO9001:2008	Aug. 2013
Special Devices, Inc.	IATF: 0156870/2004-0091	ISO/TS16949:2009	Mar. 2004
Daicel Safety Systems Europe Sp. z o. o.	44 111 070 260	ISO/TS16949:2009	Mar. 2007
Daicel Safety Technologies (Thailand) Co., Ltd.	BGK0403748/A BGK0403748/B	ISO9001:2008 ISO/TS16949:2009	Apr. 2005
Daicel Safety Technologies (Thailand) Co., Ltd.	BGK6005402	ISO9001:2008	Apr. 2005
Daicel Safety Systems (jiangsu) Co., Ltd.	SGS TS-9 0709 M2	ISO/TS16949:2009	Mar. 2009
Daicel Nanning Food Ingredients Co., Ltd.	CN10/31437 CH10/2036	ISO9001:2008 ISO22000:2005	Oct. 2003 Mar. 2007
Ningbo Da-An Chemical Industries Co., Ltd.	093702	ISO9001:2008	Dec. 2009
Xi'an Huida Chemical Industries Co., Ltd.	00111Q26766R3M/6100	ISO9001:2008	June 1999
Shanghai Daicel Polymers, Ltd.	30710458/2	ISO9001:2008	Oct. 1999
Daicel Chiral Technologies (India) Private Ltd.	112093-2012-AQ-IND-RvA	ISO9001:2008	Jan. 2012
Daicel Chiral Technologies (China) Co., Ltd.	00914Q10091R0S	ISO9001:2008	Jan. 2014

What is...?

11) Pollutant Release and Transfer Register (PRTR): A system to calculate the extent to which the production, use and storage of specific chemical substances results in the release and transfer of those substances into the environment.

Third-Party Opinion



ダイセルグループCSR報告書 2014

第三者検証 意見書

2014年6月5日

株式会社ダイセル
代表取締役社長 札幌 操 殿

一般社団法人 日本化学工業協会
レスポンシブル・ケア検証センター長

高瀬純治



■報告書検証の目的

レスポンシブル・ケア報告書検証は、株式会社ダイセルが作成したダイセルグループCSR報告書 2014(以後、報告書と略す)に記載されている、下記の事項について、化学業界の専門家であるレスポンシブル・ケア検証センターが意見を表明することを目的としています。

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性
- 2) 数値以外の記載情報の正確性
- 3) レスポンシブル・ケア活動及び CSR 活動
- 4) 報告書の特徴

■検証の手順

- ・本社において、各サイト(事業所、工場)から報告される数値の集計方法の合理性、及び数値以外の記載情報の正確性について調査を行いました。調査は、報告書の内容について各業務責任者及び報告書作成責任者に質問すること、並びに資料提示・説明を受けることにより行いました。
- ・広畑工場において、本社に報告する数値の算出方法の合理性、数値の正確性、及び数値以外の記載情報の正確性の調査を行いました。調査は、各業務責任者及び報告書作成責任者に質問すること、資料提示・説明を受けること、並びに証拠物件と照合することにより行いました。
- ・数値及び記載情報の調査についてはサンプリング手法を適用しました。

■意見

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性について
 - ・パフォーマンス数値は本社及び広畑工場において、合理的な方法で正確に算出・集計されていることを確認しました。その中で、数値の承認記録の方法については改善を期待します。
- 2) 数値以外の記載情報の正確性について
 - ・報告書に記載された情報は、正確であることを確認しました。原案段階では表現の適切性あるいは文章の分かり易さに関し指摘しましたが、現報告書では修正されており、修正すべき重要な事項は認められません。
- 3) レスポンシブル・ケア活動及び CSR 活動について
 - ・トップインタビューの項で、社長自らが安全第一を宣言することが重要であるとして、従業員に3項目の重要ポイントを提示され、議論を始めていることを評価します。
 - ・日化協の「保安事故防止ガイドライン」への取り組みを自社開発した総合 OBS も取り入れて、工場現場を含め取り組んでいることを評価します。
 - ・残念なことですが、労働安全の成績が悪くなっています。社長宣言を従業員ひとり1人まで確実に浸透させ、大幅な改善を期待します。
 - ・広畑工場では、廃棄物の分別及び資源のリサイクルに確実に取り組み、成果を上げていることを評価します。
 - ・企業倫理への取り組みが海外グループ企業まで拡大され、充実されつつあることを評価します。
- 4) 報告書の特徴
 - ・トップインタビューの項で、社長自身の言葉で長期ビジョンについて、ステークホルダー及び従業員に向けて詳しく、解り易く語られています。
 - ・特集記事の項で、革新的な省エネルギーへの取り組みにチャレンジする計画が記載されていることを評価します。
 - ・環境と安全に配慮した製品開発・技術開発の内容が詳しく記載されていることを評価します。
 - ・ヘルスケア及び社会とのコミュニケーションへの取り組みは事業のグローバル化を進める上で重要です。この取り組みの内容が記載されていることを評価します。

以上