

UBE Group CSR Report 2011

Focusing on Harmonious Coexistence with All Stakeholders



Special Feature: UBE Group Activities in Thailand



UBE's synthetic rubber plant in Rayong, Thailand

UBE Group Thailand

Having begun in coal mining, the UBE Group provides caprolactam, a raw material for nylon that has become a cornerstone of development for its chemical business. Having production, sales and technical research bases in Japan, Thailand and Spain, the UBE Group is the No. 1 caprolactam producer in Asia and among the top three worldwide.

Against this backdrop, Thailand has become an important overseas base supporting the UBE Group's chemical businesses. UBE Group Thailand, hereafter the Asia Operational Unit (AOU), is a world leader in cost competitiveness and is steadily improving its performance, taking advantage of its geographical proximity to China and India, both of which are experiencing ongoing economic growth.

Entry into Thailand

The UBE Group started operations in Thailand in 1988, triggered by the decision of a major Thai petrochemical company to enter the caprolactam business. Given that highly advanced technology is necessary for producing caprolactam, UBE's more than 30 years of accomplishments and expertise made it an attractive business partner at that time.

Thailand's deep connection with Japan has been cultivated through exchanges that began approximately 600 years ago. The formal diplomatic relations between Japan and Thailand were established in 1887 with the signing of the Declaration of Amity and Commerce. Currently, nearly 1,300 Japanese companies conduct business in Thailand, and there are approximately 50,000 Japanese residents in the country.

Agreeing to enter into a joint venture handling caprolactam business in 1989, the UBE

Group commenced caprolactam and nylon production in 1997.

Expanding AOU

In order to respond to high growth in Asian markets, it was necessary for the synthetic rubber business to establish supply bases outside of Japan. The UBE Group constructed a synthetic rubber manufacturing plant in Rayong, Thailand, in 1998 and established a stable global supply system for its caprolactam and synthetic rubber businesses.

To respond to dramatic economic growth in China and other Asian countries over the past few years, it is vital for the UBE Group to further increase its production capacity. In October 2010, AOU commenced operation of a Nylon 6 plant with an annual production capacity of 50,000 tons. In December 2011, we will expand the production capacity of our caprolactam plant by 20,000 tons, and commercial operations are

Embracing the Spirit of Living and Pros

1989 Decides to enter Thai market after agreeing to engage in joint business operations with a major Thai petrochemical company

1997 Completes production facilities for caprolactam and nylon, then completes production facilities for synthetic rubber in the following year

2001 Withdraws from joint venture following the Asian currency crisis and UBE Group engages in share purchases and capital increase

2008 Establishes the CSR Promotion Center, including four segments organized within this organization that specialize in public relations with local communities, environmental health and safety, quality assurance and fire prevention

2009 Obtains Thailand's first Clean Development Mechanism (CDM) accreditation

2010 Establishes UBE Chemicals (Asia) Public Company Limited through a merger of a caprolactam manufacturing company and nylon manufacturing company

“**Thailand is increasingly becoming one of UBE's strategically important overseas bases.**”

Nylon warehouse



Innovation center's laboratory



planned to begin in January 2012. We are also expanding our nylon compound plant. In addition, a new plant began producing 1,6-hexanediol, which is used in adhesive and coating materials, in May 2011.

At the same time, AOU is taking steps to accumulate intellectual property. In 2004, we established the UBE Technical Center Asia (UTCA) to improve our customer service as a global supplier. In December 2010, we opened the Innovation Center at UTCA and started the development of unique technologies and new products.

UTCA is currently playing a role in the UBE Group's various global R&D activities, including technical services, R&D, environment and safety, and facility maintenance. At the same time, we are deepening cooperation with Group companies in Japan and Spain. As one of the UBE Group's strategic bases, AOU will continue to expand its business in order to capture growing Asian demand. Furthermore, the UBE Group will continue to take on the challenge of improving R&D in order to compete successfully at the global level.

The Spirit of Living and Prospering Together Overseas

The UBE Group established a representative office in Thailand's capital, Bangkok, in 1990. At the time, we dispatched employees to Thailand while introducing to the Thais the spirit of our corporate philosophy, "living and prospering together" (please refer to pages 12–14). This reflects our firm belief that businesses cultivated in local communities can forge a mutually beneficial future. Accordingly, the Group's CSR activities in Thailand are rooted in the concept of living and prospering together with local communities. With this in mind, AOU established the CSR Department in 2008. The following year, all AOU employees signed the Code of Conduct, which was established in accordance with the AOU CSR Policy.

Developing Workplaces That Nurture Strong Bonds

A characteristic of AOU is its family-like atmosphere. This is derived from the hospitable nature of the Thai people, which encompasses respect for elders and kindness to others.

Caprolactam integrated monitoring room



Operators patrolling the site



Caprolactam plant



Living Together in Thailand

Existing in Harmony with Local Communities through CSR Activities

Embracing the Spirit of Living and Prospering Together in Thailand



Charunya Phichitkul, CEO

Members of the CSR Department



AOU encourages a casual atmosphere and the free exchange of information and opinions among employees, a practice known as Community of Practice (COP). A unique method of communication, COP plays an important role in strengthening teamwork. In addition, AOU proactively holds such events as CSR Day, which brings together members of the local community, suppliers and partner companies, as well as Kaizen & Innovation Day for employees. Through such initiatives, AOU is fostering active communication with local communities, suppliers, employees and other stakeholders.

Currently, only 8 of AOU's 620 employees have been dispatched from Japan. AOU is a Thai company and counted as one of the many leading companies driving the country's economy. Moreover, the ratio of management positions held by women stands at a significant 24%, and 70% of AOU's Bangkok office personnel are female. AOU maintains a comfortable working environment by ensuring fair opportunities for training and promotion.

“As UBE Group member, we value our ties with local communities.”

Moreover, AOU provides 1,500 baht (approximately ¥4,500) a year per employee to encourage employee club activities. The largest of these is the Company's Football Club, in which around 300 employees participate. In addition, there are about 240 employee volunteers in the AOU's Helping Camp Club, a charity that helps repair schools and older housing throughout Thailand.

Given that the AOU plants operate 24 hours a day, 7 days a week, employee health is of

particular interest. Industrial doctors are on standby on weekdays between noon and 2 p.m., while 3 nurses work in shifts to be available 24 hours a day.

Encouraging Valuable Ties with Local Communities

Having ceaselessly strived to maintain close connections with local communities since its founding, AOU works to nurture friendly relations with members of the local community. AOU promotes mutual understanding by holding each year factory tours and dialogue meetings in which members of the local community interact with top management.

UBE opened the comprehensive information center, "i-Plaza," in 2010 as a place to encourage interaction with stakeholders. Visitors to i-Plaza appreciate the introduction of the UBE Group's history and future, and the center is leading to an improvement in our corporate image.

AOU has expanded its social contribution activities to foster the development of local communities. In particular, AOU is focusing on education. Such activities range from providing computer software to improving libraries and facilities mainly at elementary and junior high schools to engaging in joint research with universities. In addition, AOU continues to support the local Mabtapat Technical College, having jointly proposed a business-oriented curriculum with other companies, while providing funds and accepting long-term student trainees at AOU plants.

Taking an Active Approach to Environmental Preservation

Regulations in Thailand related to health, safety and the environment are becoming stricter. In addition, the impact that the petrochemical industry is having on the environment has become an increasing concern for the Thai people.

A view inside UTCA's innovation center, i-Plaza



AOU CSR Policy

- To provide safe and healthy working environment.
- To apply best practices in all operations and systems towards preservation of global environment.
- To live and prosper in harmony with the local community.
- To establish compliance by strengthening corporate governance and fair operating practices.



An elementary school library that has benefited from AOU's facility improvement and reading promotion efforts

R&D members



Helping Camp Club



An outdoor employee rest area



“Contributing to the Global Environment”

AOU is staying a step ahead of such heightened environmental awareness not only by pursuing more efficient production but also by aiming to operate clean, environmentally friendly plants. Examples of this include the use of a reverse osmosis membrane system to treat plant wastewater and employing systems that reuse industrial water.

Furthermore, AOU is reducing greenhouse gas emissions, which cause global warming. In 2008, AOU commenced the operation of the Clean Development Mechanism (CDM)* Project—an

approach to reducing greenhouse gases specified in the Kyoto Protocol—in order to decrease emissions of nitrous oxide (N₂O), which has approximately 310 times the greenhouse coefficient (ability to trap heat in the atmosphere) of CO₂. Being the first company in the industrial (chemical) sector in Thailand to participate in the CDM Project (which is endorsed by the Thai government), AOU plans to undergo the screening required to obtain CDM certification by submitting documents outlining its greenhouse gas emission reduction status to the UN.

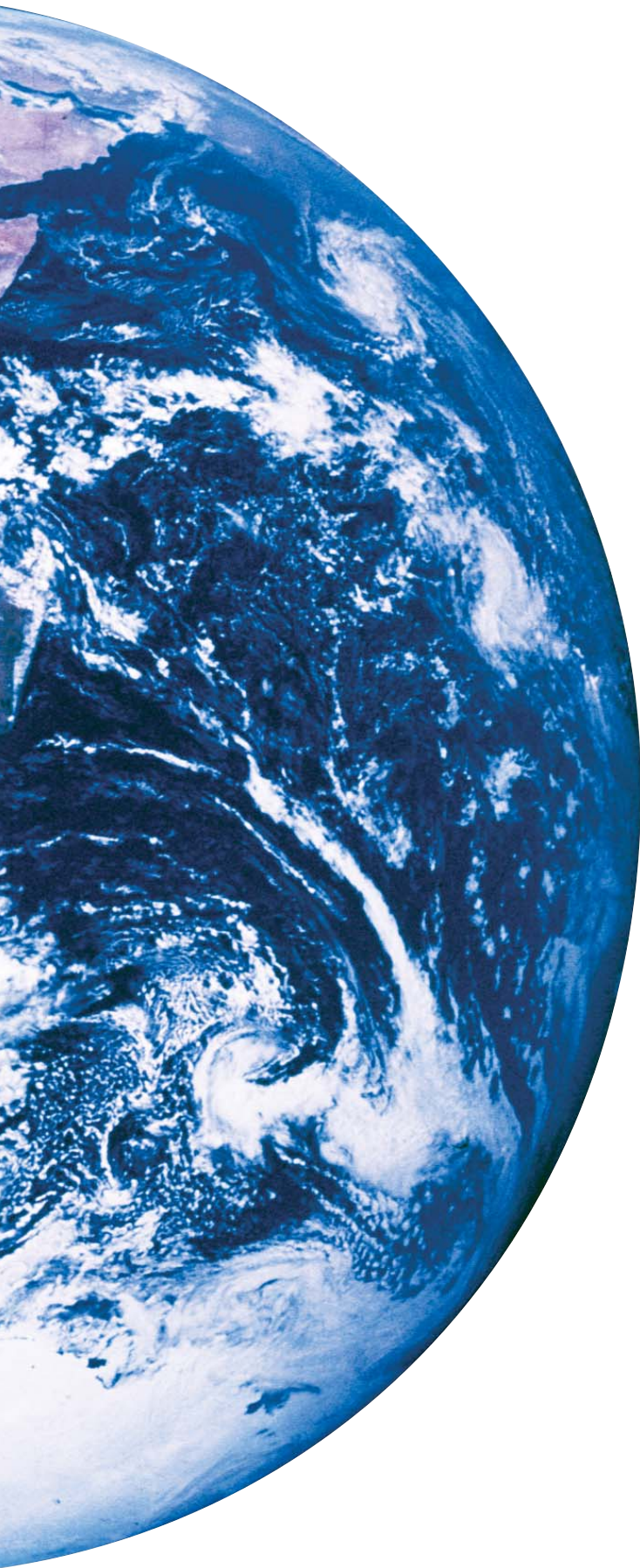
Being a Leading CSR-Oriented Company

In 2010, AOU was awarded the CSR-DIW Continuous Award by the Thai Ministry of Industry in recognition of its CSR practices' compliance with ISO 26000 international standards.

Living and Prospering Together with Local Communities Now and into the Future

AOU aims to develop together with local communities as it maintains a world class level of competitiveness and commits to strict compliance standards. To this end, AOU, as a member of the UBE Group, fully embraces the spirit of living and prospering together with a focus on building mutual understanding by forging closer links with local communities. AOU will contribute to the sustainable development of local communities and the preservation of the global environment through unceasing CSR activities.

* CDM: A system that allows the transfer to an advanced country of the amount of reduction in greenhouse gas emissions through environmental business operations implemented in a developing country.



Source: NASA

Saving the Only Planet We Have

The Ube Group has set the target of reducing CO₂ emissions, a cause of global warming, by 20% compared with fiscal 1991 levels by fiscal 2016. As a company that consumes a significant amount of energy and emits a large amount of CO₂, the Group focuses on the production of environment-friendly technologies and products while working to quantify the volume of CO₂ emitted and reduced through LCA.

Life Cycle Analysis (LCA)

At all stages—from raw material procurement through manufacture, distribution, consumption and disposal—products generate various environmental burdens. Examples of this include the consumption of natural resources and the discharge of waste.

LCA is a method of quantifying and objectively assessing environmental burdens at all stages of a product's life cycle. This method makes it possible for consumers to choose products with reduced environmental burdens while enabling companies to actively develop such products.

“**The UBE Group has Taken
the First Step toward LCA.**”

The UBE Group's Initiatives

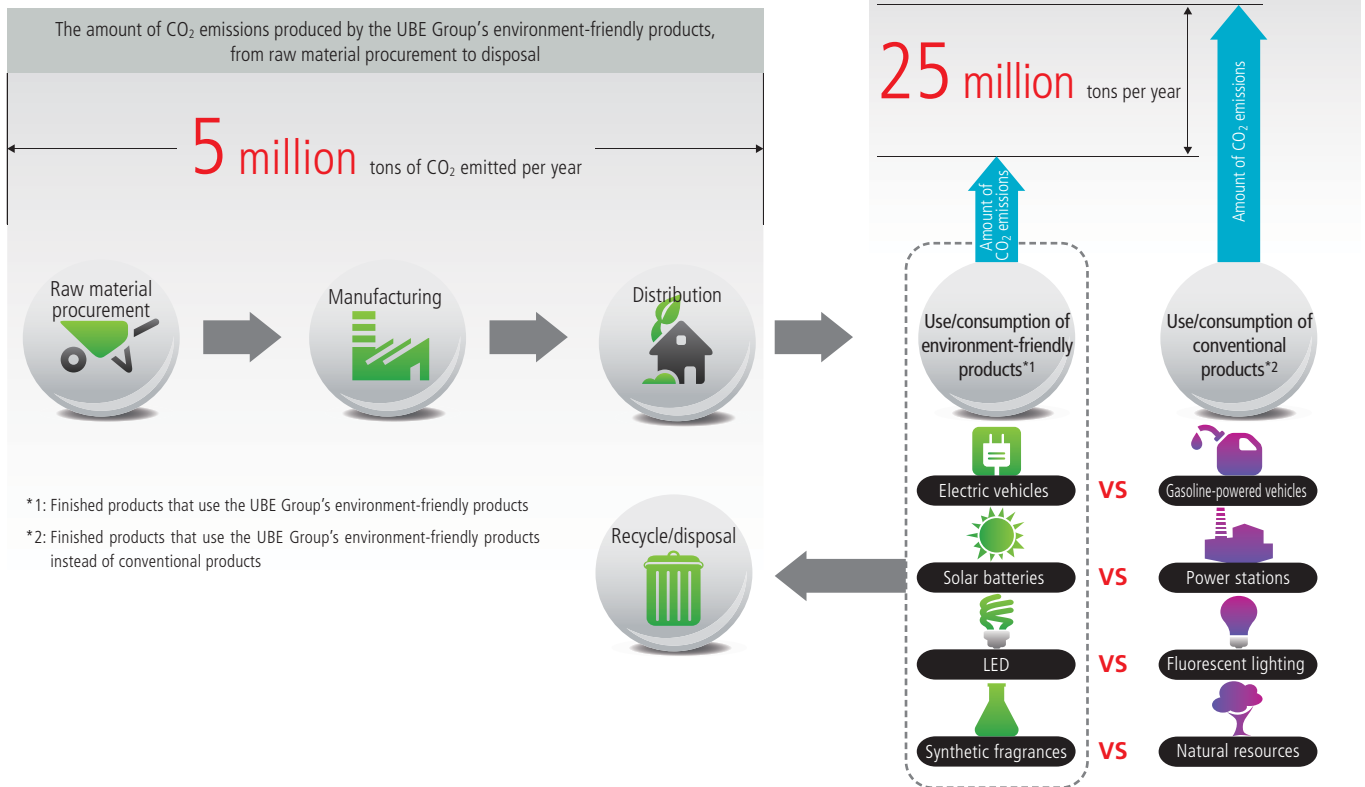
The UBE Group's medium-term management plan has set the goal of reducing greenhouse gases. To that end, we have taken the first step toward quantifying the amount of CO₂ we emit and reduce through LCA.

The upper right chart shows the UBE Group's environment-friendly products from an LCA standpoint. If finished products using the Group's environment-friendly products become more widely used, the amount of CO₂ reduced in fiscal 2031 (a one-year period) will be approximately 25 million tons. Among such products are our lithium-ion battery materials. Such materials are indispensable to the production of lithium-ion batteries, the power source of electric vehicles, which emit very little CO₂ compared with gasoline-powered automobiles. Accordingly, the Group will help contribute to a reduction in CO₂ emissions through the spread of electric vehicles.

Looking ahead, the Group will expand the development of environment-friendly products that decrease CO₂ emissions in order to preserve the global environment.

Addressing Global Warming through **the Development and**

Image for Fiscal 2031

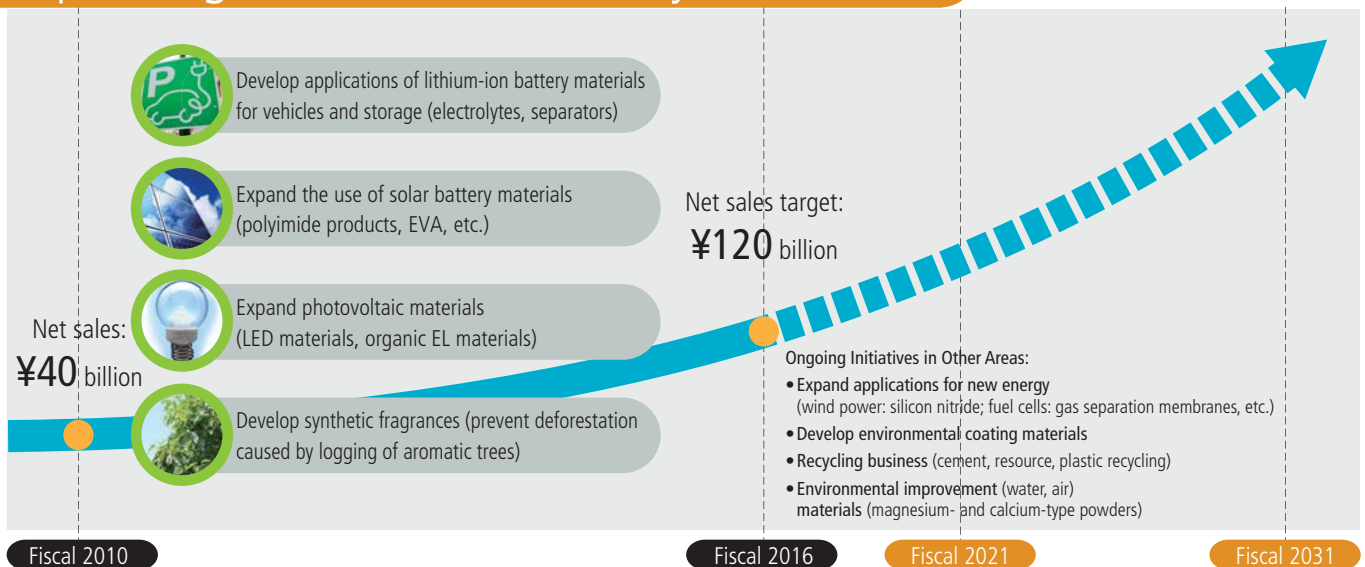


The amount of CO₂ reduced by the UBE Group's environment-friendly products

| | Fiscal 2021 | Fiscal 2031 |
|--|-----------------|-----------------|
| CO ₂ reduction at the usage stage of finished products that use the UBE Group's environment-friendly products* | 10 million tons | 25 million tons |
| CO ₂ emitted during the raw material procurement, manufacturing, distribution and disposal of the UBE Group's environment-friendly products | 4 million tons | 5 million tons |

* Calculated based on the market share of UBE Group environment-friendly products, the amount of CO₂ reduced reflects the difference in CO₂ emissions between finished products that contain UBE Group environment-friendly products and those containing conventional products (the amount of finished products that are becoming more widely used is determined based on the amount of CO₂ reduced through use in one fiscal year).

Expanding Environment-Friendly Businesses



Supply of Environment-Friendly Products

Message from the President

I would like to extend our deepest sympathies for all those affected by the Great East Japan Earthquake and sincerely wish for the earliest possible recovery of those still suffering from physical and emotional distress.

The UBE Group has made concerted efforts to help Group companies damaged or indirectly affected by the disaster return to normal operations. Moreover, the Group has committed itself to contributing to the ongoing recovery of disaster stricken areas across all its businesses in a wide range of areas, including through the provision of equipment, materials and energy.

Throughout its 114-year history, the UBE Group has upheld the corporate philosophy espoused by Suksaku Watanabe, "living and prospering together with the local community" and "creating industries with infinite possibilities from the finite resources of coal" Over the past century, we were able to maintain our business presence, even amid the numerous changes that occurred in tandem with the energy revolution. These changes saw the decline of Japan's many coal mines and the local communities that depend on them. Our ongoing development is directly linked to the value we place on "living and prospering together with the local community" and the fostering of a frontier spirit that underpins our business activities, which cover a variety of areas.

As the Group continues to expand globally, it will actively pursue initiatives that promote the prosperous coexistence with local communities at our bases in Thailand and Spain.

With a wide technological foundation and possessing considerable latent capacity, the Group has the ability to continuously develop the types of new value demanded worldwide. With great pride in UBE's history, Group employees take on new challenges bound by a sense of community that is underscored by UBE's corporate philosophy. Consequently, the Group will continue to grow while increasing its presence among all stakeholders.

UBE Group CSR

One of the key management strategies of the previous medium-term management plan was to "strengthen CSR activities." To that end, we constructed a matrix of the scope of activities and our relationships to each stakeholder. In so doing, we were able to clarify the positioning of each CSR activity, and, while getting a grasp of each activity's level of quality, we were able to further improve our CSR efforts. As a result, I am certain that people from both within and outside the UBE Group have become more knowledgeable about our CSR activities.

Against this backdrop, the Group's medium-term management plan, which began fiscal 2011, promotes initiatives to "respond to and address global environmental issues" as one of its basic strategies. This strategy has been clarified in order to highlight the types of measures we must take to address global environmental issues. Such issues are likely to increase in scope in the years ahead, forming the foundation of the CSR activities taking root throughout the Group.

Maintaining a more autonomous perspective is of the utmost importance. I believe that the development of CSR on an even deeper level is dependent on increasing the awareness of this concept in each Group employee.

Respond to and Address Global Environmental Issues

Solving this issue begins with engaging in constructive action that strikes a balance between economic and the environmental concerns. The UBE Group maintains its business activities while continuing to conserve resources and energy. In addition, we prioritize the development and expansion of environment-friendly technologies and products.

As part of its efforts to conserve resources and energy, the Group commenced full-scale trials regarding the mixing of palm kernel shells (PKS) with coal for use as fuel for its in-house, coal-fired thermal power generator plant. PKS is a carbon-neutral biomass material consisting of shells left over after the seeds are removed to produce palm oil. Looking ahead, the Group will increase the ratio of PKS mixed with coal used in its thermal power generator plant. Such actions are expected to help reduce CO₂ emissions.

I would like to discuss our efforts to prioritize the development and expansion of environment-friendly technologies and products. The Group has been creating new technologies and products that are anticipated to contribute greatly to environmental preservation. Such efforts include undertaking the full-scale commercialization of the environmental coating material PUD (waterborne polyurethane dispersion); engaging in the second phase of construction of facilities in Spain to manufacture polycarbonatediol (PCD), which is a raw material used to produce PUD; establishing a joint company to manufacture separator films for lithium-ion batteries; commercializing AMC[®] (Artificial Micro Carbon); and increasing the production of metal organic (MO) compounds and silicon nitride for use in LEDs. In addition, we will develop and enhance products related mainly to the next-generation energy field, photo-voltaic materials and eco-friendly fine chemicals, positioning these areas as driving forces for growth. The UBE Group continues to quantify the environmental friendliness of its main products by applying the concept of life cycle analysis (LCA). In light of the Group's role as a chemical manufacturer, I believe that such activities will increase understanding of our environmental contribution initiatives among stakeholders.

Social Contribution Activities

The UBE Group's social contribution activities are emblematic of its efforts to grow and develop sustainably. Because our stakeholders will never accept social contribution activities that could hinder management operations, and would be untenable in any case, the UBE Group will continue to make ever-more proactive endeavors to implement significant social contribution activities—endeavors to which it is best suited.



Assuming the role of promoter, the Group began participating in the Japan Chemical Industry Association's (JCIA) "Human Resources Fostering Program in Chemistry" in fiscal 2011. In addition, we continue to support educational activities through the UBE Foundation, which is dedicated to providing financial assistance to talented young researchers, and the Watanabe Memorial Culture Association, an organization that backs a variety of social businesses and educational promotion activities.

Other ongoing activities include our support, from fiscal 2009, of the well-received UBE Group Charity Concert by the Japan Philharmonic Orchestra in Ube; the comprehensive information center, "UBE-i-Plaza"; and tours of local industrial facilities held by the UBE Group. These are all popular initiatives that deepen community relations and public understanding of the UBE Group, and should be developed even further.

At our overseas bases in Thailand and Spain, we are taking proactive steps to maintain communications with local communities primarily by conducting factory tours, engaging in volunteer activities and providing educational assistance.

Entering the Second Year of the Medium-Term Management Plan "Stage Up 2012-New Challenges"

During fiscal 2011, the first year of Stage Up 2012, we exceeded performance targets established in this medium-term management plan, especially in the area of commodities. This was buoyed by activity in markets in emerging countries, particularly in Asia. However, the Group's efforts to expand strategic growth businesses and developing businesses remain only half finished. The plan's subtitle, "New Challenges" is a reference to the three areas in which we will apply our efforts. "Challenge to Paradigm Shifts" is represented by the key areas of emerging markets and the environment. The target markets of the Group are shifting toward emerging economies, primarily in Asia. As a result, competition in emerging countries is intensifying, which is significantly transforming the business environment. Under these circumstances, it is vital that we bolster our profit base in order to maintain sustainable growth. The rapid

Overview of the Medium-Term Management Plan "Stage Up 2012—New Challenges"

Basic Strategies

- 1) Establish a platform for profitability that enables sustainable growth
- 2) Sustained improvement of financial position
- 3) Respond to and address global environmental issues

The Three "New Challenges"

- 1) Challenge to Growth
- 2) Challenge to Paradigm Shifts (emphasis on emerging markets and the environment)
- 3) Re-challenge of the Numerical Targets of the Previous Medium-Term Management Plan

Management Targets

| | | Targets for Final Fiscal Year of Stage Up 2012 |
|----------------------------------|------------------------|--|
| Financial Indicators | Net debt/equity ratio | Below 1.0 |
| | Equity ratio | 30% or above |
| Profit Indicators | Operating income ratio | 7.5% or above |
| | Return on assets (ROA) | 7.5% or above |
| | Return on equity (ROE) | 12% or above |
| Net sales | | ¥670.0 billion or above |
| Operating income | | ¥53.0 billion or above |
| Business income | | ¥55.0 billion or above |
| Net interest-bearing liabilities | | Below ¥220.0 billion |
| Equity capital | | ¥225.0 billion or above |

implementation of our various business strategies is key to us reaching our goals. To this end, we will strengthen and expand strategic growth businesses and developing businesses (including pharmaceuticals, battery materials, polyimide, fine chemicals, specialty inorganic materials, recycling); expand manufacturing in the volume-zone markets of emerging countries; and promote overseas development in line with the Group's business characteristics.

August 2011

Michio Takeshita.

Michio Takeshita

President and Group CEO, Representative Director

Corporate Profile

Corporate Profile

Company Name: Ube Industries, Ltd.

Founded: June 1, 1897

Consolidated: March 10, 1942

President and Group CEO: Michio Takeshita

Capital: ¥58.4 billion (as of March 31, 2011)

No. of Employees: 11,026 (consolidated) 3,727 (unconsolidated)
(as of March 31, 2011)

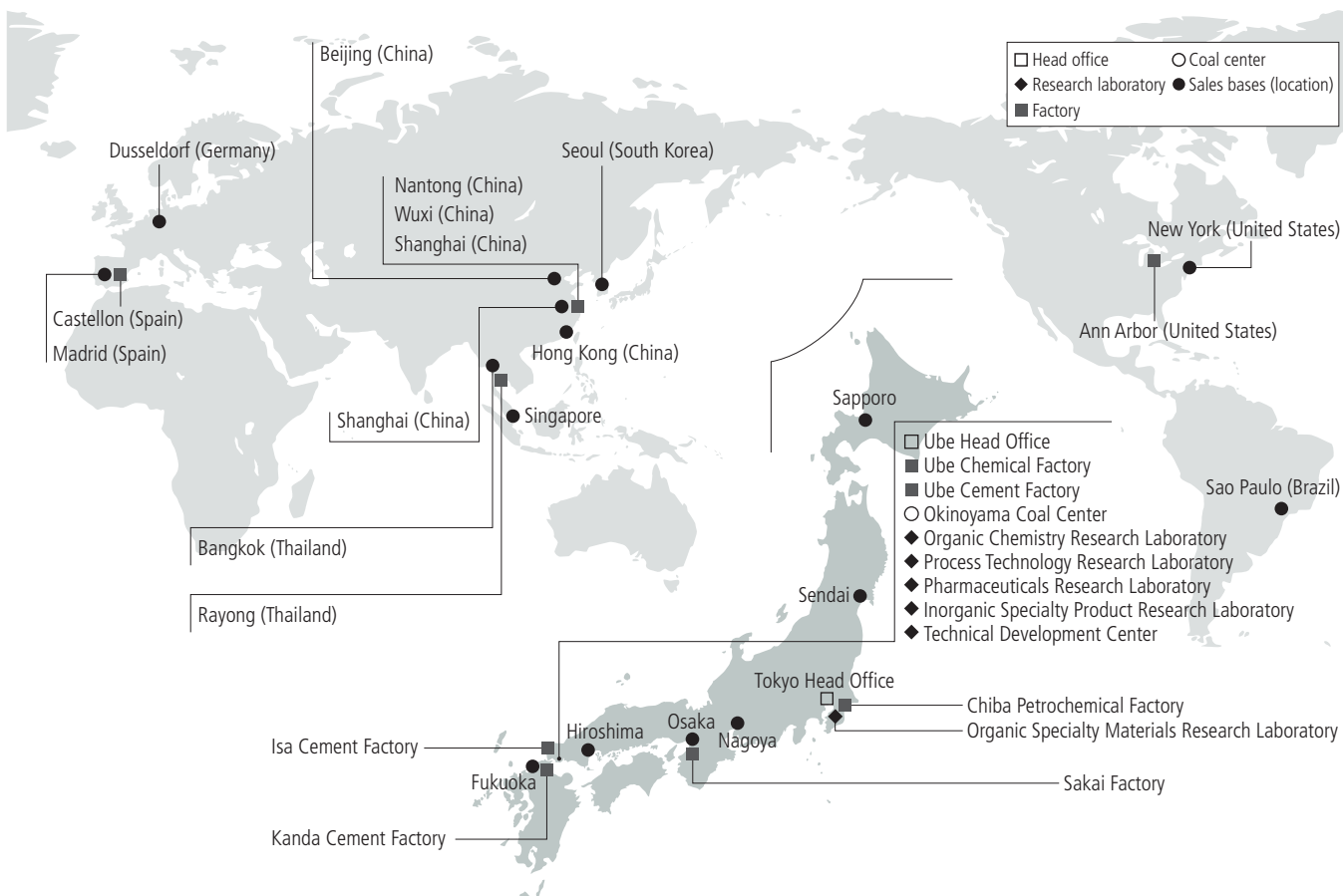
Business Profile

| Business Segment Name | Main Products |
|---------------------------------|---|
| Chemicals & Plastics | Nylon resins, caprolactam (a basic raw material for nylon), synthetic rubber, ammonia |
| Specialty Chemicals & Products | Specialty products such as battery materials and polyimide; fine chemicals |
| Pharmaceutical | Drug discovery; manufacturing of pharmaceutical active ingredients and intermediates |
| Cement & Construction Materials | Cement, ready-mixed concrete, construction materials, recycling of resources, Calcia/Magnesia |
| Machinery & Metal Products | Molding machines, industrial machinery, aluminum wheels |
| Energy & Environment | Coal, electric power |

Fiscal 2011 Topics

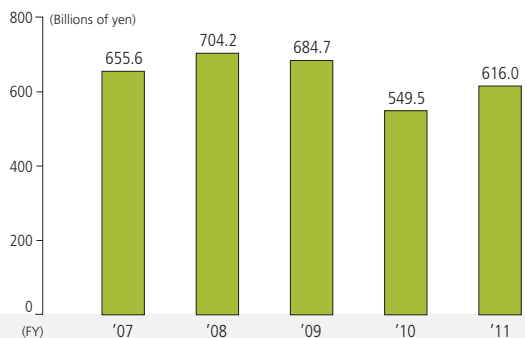
| | |
|---------------|---|
| April 2010 | <ul style="list-style-type: none"> Daiichi Sankyo Co., Ltd. releases RezaltasHD, an antihypertensive agent that blends UBE's CALBLOCK with Allmedic, a drug produced by Daiichi Sankyo |
| May | <ul style="list-style-type: none"> Announces the new medium-term management plan, "Stage Up 2012-New Challenges" |
| July | <ul style="list-style-type: none"> Establishes a local subsidiary in Brazil Decides to augment its synthetic rubber manufacturing facilities |
| September | <ul style="list-style-type: none"> Announces upgrades to caprolactam-chain business in Thailand |
| October | <ul style="list-style-type: none"> Agrees to form a comprehensive alliance with Advanced Softmaterials Inc. to develop businesses for Slide-Ring Material® |
| November | <ul style="list-style-type: none"> Launches the "UB-iV Series," new large-scale die-casting machines that reduce environmental burden and are easy to use thanks to their high degree of functionality |
| December | <ul style="list-style-type: none"> Begins full-scale verification testing combustion of palm kernel shells (PKS) Opens the Innovation Center in Thailand |
| February 2011 | <ul style="list-style-type: none"> Establishes joint venture with Hitachi Maxell, Ltd. to manufacture separator films for lithium-ion batteries Expands sales and development structure for battery materials business Decides to build a second metal organic (MO) compound plant Grants license to Chinese company to manufacture ethylene glycol |
| March | <ul style="list-style-type: none"> Wins the Green Sustainable Chemistry Award for the development of a new production method for environment-friendly perfume Decides to withdraw from the aluminum wheel business Establishes a local subsidiary in South Korea Commences construction to augment facilities to manufacture silicon nitride |

Business Bases in Japan and Overseas



Major Financial Data (Consolidated)

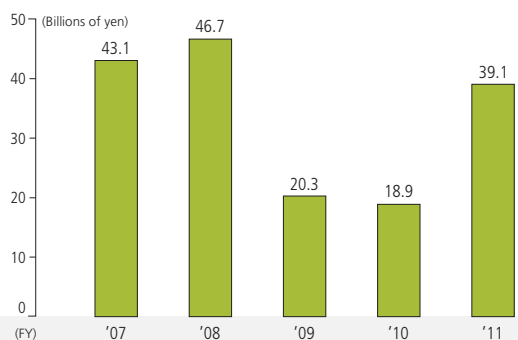
Net Sales



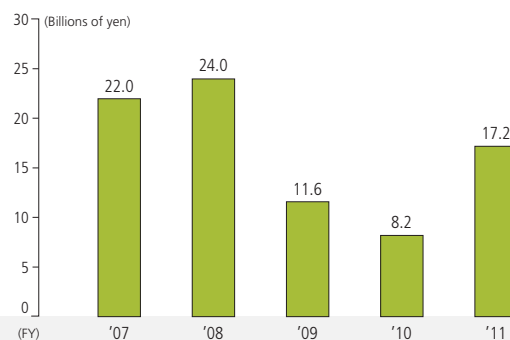
Operating Income and Operating Income Ratio



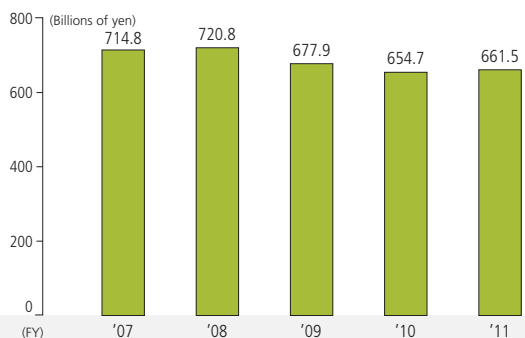
Ordinary Income



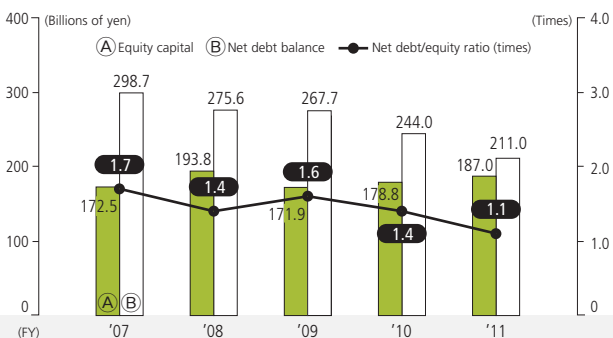
Net Income



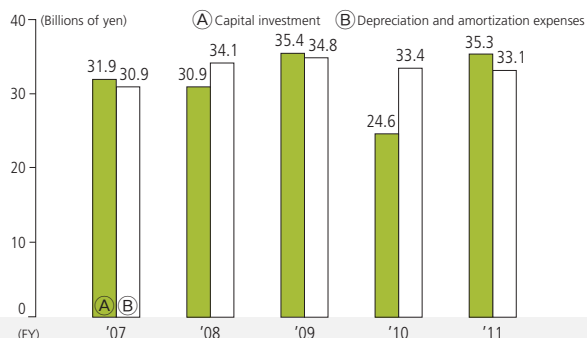
Total Assets



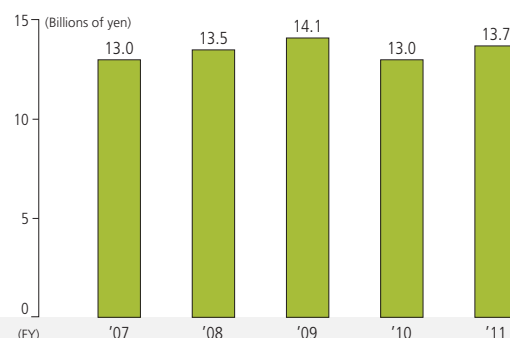
Equity Capital, Net Debt and Net Debt/Equity Ratio



Capital Investment, Depreciation and Amortization Expenses



R&D Expenditures



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Editorial Policy

We began publishing an annual RC report in 1997 to introduce our environmental initiatives. We subsequently changed the name of the report to the *CSR Report*. This year, 14 years after the very first publication of the report, we have created the *UBE Group CSR Report 2011* as our seventh CSR report. In our editing of this CSR report, we have maintained a commitment to producing a readable document that is of interest to readers. The main features of the 2011 edition are as follows:

1. Currently expanding its business activities globally, the UBE Group is promoting CSR activities at its bases worldwide based on its corporate philosophy, "living and prospering together," and with the aim of achieving "global coexistence." Examples of the Group's forward-looking CSR activities rooted in local communities are introduced in the Special Features section, UBE Group Activities in Thailand.
2. UBE will "respond to and address global environmental issues," a basic strategy of the medium-term management plan. From the perspective of life cycle analysis (LCA)—a method of quantifying environmental burden—the report introduces the Group's efforts to reduce CO₂ emissions as well as businesses that contribute to the environment in the Special Features section, The UBE Group's Approach to Global Environmental Issues.
3. Enhance interactive communication: To clearly show how the public views the UBE Group and to identify new CSR-related issues for the Group, we included more opinions from third parties in this report in sections such as "Guest Message." By doing this, we aim to realize interactive communication.
4. Create an easy-to-read page format: We structured this report to feature concise content and an easy-to-read design in order to make it satisfactory for all of our stakeholders. We received certification from Color Universal Design Organization for the third consecutive year and have used universal font in this report.

Scope of This Report

Period covered:

Fiscal 2011 (from April 1, 2010 to March 31, 2011)

(The report, however, does at times refer to activities conducted in fiscal 2012 and future plans.)

Companies covered:

- The UBE Group (142 companies)
 - Of which the following companies are covered in the reporting of major financial data (page 9): Ube Industries, Ltd. and its consolidated companies (90)
 - Consolidated subsidiaries: 66
 - Equity-method affiliates: 24
 - Of which the following companies are covered in the reporting of environmental performance data: Ube Industries, Ltd.
 - Three chemical factories (Chiba, Sakai and Ube)
 - Three cement factories (Ube, Isa, Kanda)
- Other Group companies (12)
 - Ube Film, Ltd., Meiwa Plastic Industries, Ltd., Ube Ammonia Industry, Ltd., Ems-Ube, Ltd., UBE-MC Hydrogen Peroxide, Ltd., Ube-Nitto Kasei Co., Ltd., Ube Materials Industries, Ltd., Ube Board Co., Ltd., Ube Machinery Corporation, Ltd., Ube Steel Co., Ltd., Ube Aluminum Wheels, Ltd., Fukushima Ltd.

Definitions:

UBE: refers to Ube Industries, Ltd. (unconsolidated)

The UBE Group: refers to the UBE Group companies, including Ube Industries, Ltd.

Areas covered:

Japan and some locations overseas (including Thailand, Spain and China)

Statistical data published in this report:

- All statistical data and relevant descriptions published in this report, excluding the environmental performance data, cover all Group companies.
- In principle, data is for the last five years (fiscal 2007 to 2010)
- The scope of data, however, does vary in places. In such cases, the specific scope is noted on the relevant page.

Reference guidelines:

This report was created with reference to the Japanese Ministry of the Environment's Environmental Reporting Guidelines (2007 edition). We also referred to the Ministry's Environmental Performance Indicators Guidelines for Organizations (2002 edition) for environmental performance data and to the Ministry's Environmental Accounting Guidelines (2005 edition) for environmental accounting standards.

The Spirit of “Living and Prospering Together with the Local Community”

This is UBE’s corporate philosophy and core CSR concept and has been passed down for over 110 years



A quote from UBE’s founder:
Sukesaku Watanabe:

The establishment and development of a sustainable business leads to the overall prosperity of local communities. In other words, the development of business and local communities are inextricably linked. This is the meaning of “living and prospering together with the local community.”



An electric train tower shaft located at an old Okinoyama coal mine

The Two Management Philosophies That Form the Core of the UBE Group's CSR

1 Promoting the Management Philosophy, "Living and Prospering Together" to Create Ideal Local Communities

Sukesaku Watanabe, the founder of UBE Kosan, was a businessman who loved his hometown. Strongly believing in the importance of maintaining close links with local communities while pursuing business development, Watanabe undertook various initiatives to upgrade the civil and social infrastructure of the region. Such initiatives included establishing an electric company that provided electric lighting in the region for the first time, constructing water supplies and railroads, and setting up schools to foster the development of human resources. Sukesaku Watanabe's favorite phrase, "living and prospering together with the local community," forms the basis of the UBE Group's CSR activities.

2 Promoting the Management Philosophy "Creating Industries with Infinite Possibilities from the Finite Resources of Coal" to Foster a Frontier Spirit

Anticipating a future in which there would be no coal left to mine, Watanabe espoused the philosophy of "creating industries with infinite possibilities from the finite resources of coal" in order to ensure the continuing prosperity of local communities. Consequently, he focused his efforts on making the transition from the coal mining industry to new, developing industries. In particular, Sukesaku Watanabe had the foresight to use soil removed from mines to create waterfront landfills that could serve as industrial sites. In addition, he established harbor jetties and railroads while opening steel, cement and chemical factories. Such facilities currently form the foundation of the UBE Group. In line with Watanabe's philosophy of taking on new business challenges, UBE cultivates a corporate culture that encourages a spirit of challenge that fosters a frontier spirit in every employee.

Wings of Technology and Spirit of Innovation

That's the DNA driving our global success. The Ube Group will embrace a frontier spirit in seeking to achieve coexistence with the global community driven by the limitless possibilities of technology, while continuing to create value for the next generation.

UBE is Pursuing "Global Coexistence"

The UBE corporate philosophy, "living and prospering together with the local community," and a spirit of unremitting self-reform comprise the UBE Group vision. This Group vision is being passed along to every employee. The UBE Group's strengths lie in business activities centered on product manufacturing through the use of original technology as well as a proactive approach that meets the needs of the age. Most importantly, the Group examines ways to utilize its strengths with the goal of coexisting with all stakeholders. Expanding our business activities worldwide, we will work to realize sustainable development around the globe with the aim of achieving "global coexistence."

The UBE Group works to achieve sustainable business and social development by positioning its Basic CSR Policy at the center of its business activities. In so doing, we are fulfilling our responsibility to maintain coexistence between business and society. In addition, we adhere to UBE's Action Guidelines in order to realize proactive CSR activities and, in turn, attain the trust of all stakeholders.

UBE Group Basic Policies for CSR

- Continually improve profits and earnings and maintain a sound financial position in order to increase corporate value
- Provide products, services, and systems that contribute to safety and the environment, reduce the use of harmful materials and waste, and institute policies for the prevention of global warming in order to contribute to the conservation of the global environment
- Establish compliance procedures to improve corporate governance and create a better working environment as a part of our activities to contribute to society

Nine Chapters of the UBE Action Guidelines

Chapter 1 Corporate Mission and Social Responsibility

We will strive to create new value and achieve sustainable growth as a corporation, while actively fulfilling our corporate social responsibilities in contributing to the sound growth of society.

Chapter 2 UBE Group and the Law

We will comply with applicable legislation and our company regulations, conducting ourselves as a member of a sound society. We will refrain from any ties or transactions with antisocial forces, and will not bow to the unreasonable demands of antisocial forces.

Chapter 3 Business Activities and Creating Value

We will develop and supply technologies, products and services that are safe and serve useful purposes, in order to earn the confidence of the public.

Chapter 4 Fairness and Integrity

We will strive to promote fair and open competition while executing our work with integrity as we pursue our business activities both at home and abroad.

Chapter 5 Safety and the Environment

We are committed to safety, and will actively and voluntarily implement initiatives to conserve the global environment as an issue facing all humankind.

Chapter 6 UBE Group and Human Rights

We will respect human rights and create healthy and positive workplaces that are comfortable to work in, as we pursue our business activities both at home and abroad.

Chapter 7 UBE Group and Information

We will strive to protect information and engage in appropriate disclosure of corporate information, while actively and thoroughly facilitating communication with society.

Chapter 8 UBE Group and the International Community

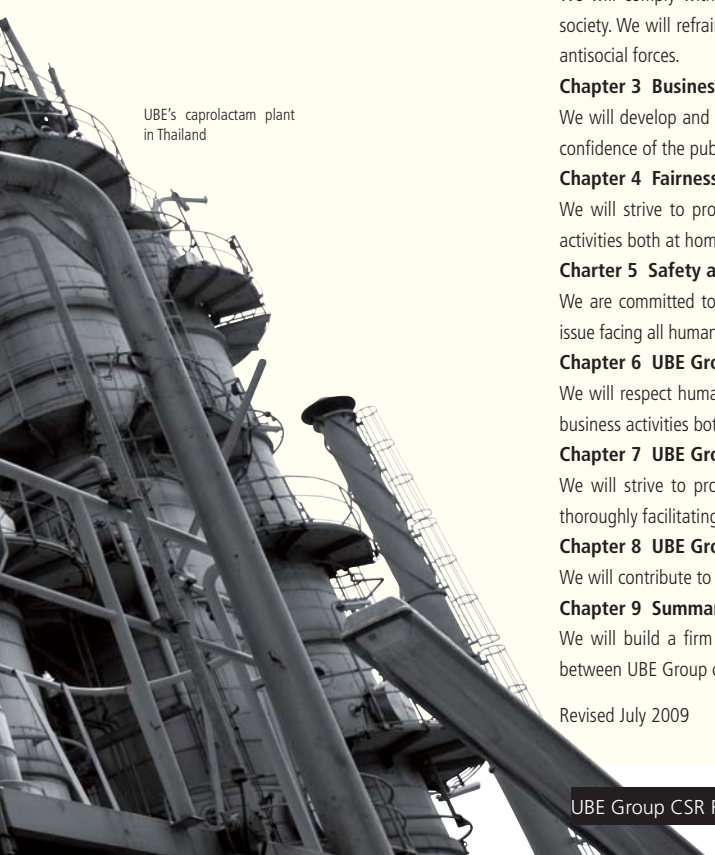
We will contribute to the growth of the regions we are involved in, as a member of the international community.

Chapter 9 Summary: Building a Firm Foundation of Corporate Ethics

We will build a firm foundation of corporate ethics, based on the Ube Action Guidelines and through close cooperation between UBE Group companies and our business partners.

Revised July 2009

UBE's caprolactam plant
in Thailand



CSR Management

CSR Promotion System

We have established the Group CSR Committee as a top-level decision-making body with regard to the UBE Group's Basic CSR Policies. It is composed of members of the Group Management Committee and is chaired by the Group's CEO (president). The Group CSR Committee makes decisions on and revises important matters related to the Group's Basic CSR Policies and CSR promotion activities, and it assesses the results of the Group's CSR-related activities.

● Group CSR Committee System

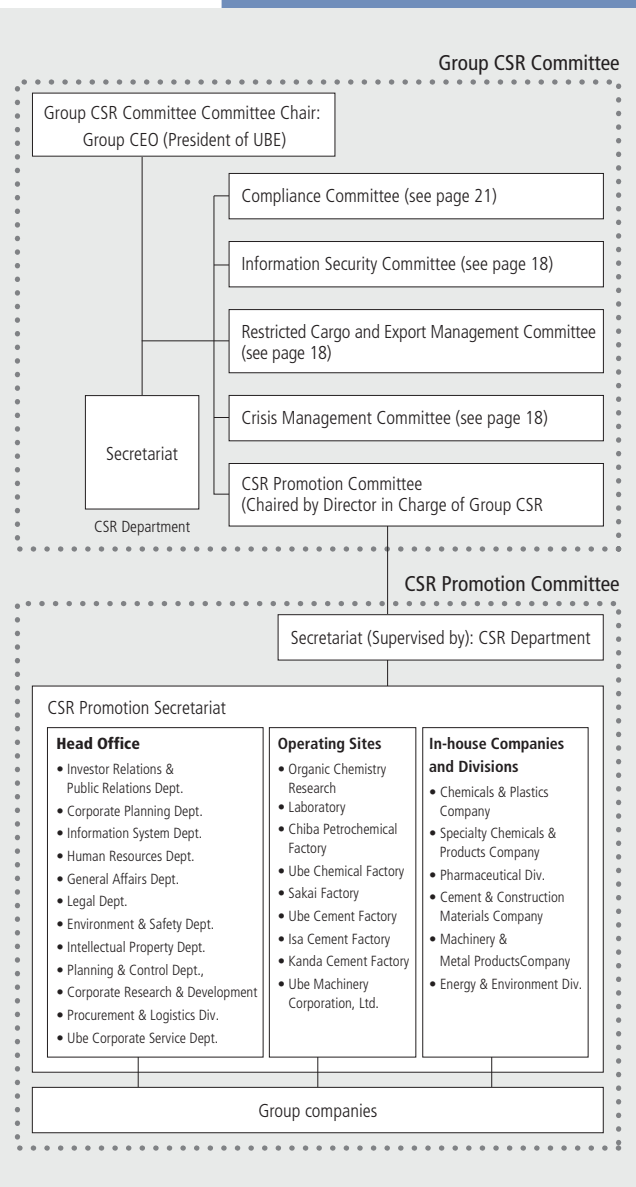
With the idea that CSR is an integral part of its management, the Group CSR Committee establishes the CSR matrix, and five specialized committees undertake deliberations, reporting and revisions related to specific action plans. Through this system, the Group aims to harmoniously coexist with society by promoting fair corporate activities that deepen the level of trust between the Group and its numerous stakeholders, including shareholders, customers, suppliers, employees, local communities and governments.

● Significance of the UBE Group CSR Matrix

The CSR matrix clarifies the contents of CSR issues, broken down by stakeholder, that must be addressed by every UBE Group executive and employee based on the Group's CSR Mission.

The UBE Group thoroughly promotes Groupwide awareness of its CSR matrix, while regularly making revisions to specific initiatives listed in the CSR matrix.

CSR Promotion System



UBE Group's CSR Mission

The UBE Group increases corporate value and contributes to stakeholders through fair corporate activities. At the same time, the Group maintains business continuity and sustainable growth as it harmoniously coexists with society over the long term.

Shareholders

- Continuous improvement of corporate value
- Stable and appropriate provision of dividends
- Appropriate information disclosure

Customers

- Provision of products and services that are safe, of high quality and useful, at reasonable prices
- Prompt response to customer needs

Suppliers

- Fair and unbiased trade

Employees

- Appropriate salaries
- Stable employment
- Human resource development
- Sharing of information and targets
- Support for higher quality of life

Local communities and government

- Stable and fair employment
- Appropriate tax payment
- Contribution to and dialogue with the local communities

UBE Group's CSR Matrix (Items for medium- and long-term initiatives broken down by stakeholder)

| Basic policies | Items for medium- and long-term initiatives | | Page included | Groupwide organization | Primary department in charge |
|---|---|--|----------------------------|--|--|
| Corporate governance and internal control • To establish highly transparent corporate governance and an efficient and disciplined enforcement system • Ensure ongoing business operations by formulating a business continuity plan (BCP) | Shareholder | <ul style="list-style-type: none"> Enhancement of corporate governance and internal control Stable and appropriate provision of dividends Improvement of financial structure | 17 18 22 | <ul style="list-style-type: none"> General Meeting of Shareholders Board of Directors Internal control system Outside directors Group Strategic Management Committee Crisis Management Committee | <ul style="list-style-type: none"> Corporate Planning Dept. Auditing Dept. General Affairs Dept. |
| | Customer | <ul style="list-style-type: none"> Assurance of fair trade and competition Ensure ongoing business operations by formulating a business continuity plan (BCP) | 21 | | |
| | Supplier | <ul style="list-style-type: none"> Fair and unbiased purchasing | 21 | | |
| | Employee | <ul style="list-style-type: none"> Awareness of management policies Better understanding of CSR activities Business performance based on assigned roles Cultivate a sense that employees have a stake in management operations (through stock options, etc.) | 12 13 14 | | |
| | Local community, society and government | <ul style="list-style-type: none"> Appropriate tax payments Maintain an appropriate relationship of trust with government agencies and other bodies | 24 | | |
| Compliance • To comply with corporate ethics and social norms without fail • To comply with laws, regulations and contractual obligations • To eliminate the presence of antisocial elements | Shareholder | <ul style="list-style-type: none"> Prevention of insider trading Appropriate and timely disclosure of information | 22 | <ul style="list-style-type: none"> Compliance Committee Restricted Cargo and Export Committee | <ul style="list-style-type: none"> Legal Dept. Corporate Planning Dept. |
| | Customer | <ul style="list-style-type: none"> Compliance with related laws and regulations, including the Antimonopoly Act Strict confidentiality of customer information, etc. | 21 | | |
| | Supplier | <ul style="list-style-type: none"> Respect for intellectual property Compliance with related laws and regulations, including the Act against the Delay in Payment of Subcontract Proceeds, etc. to Subcontractors and the Law for Securing the Proper Operation of Worker Dispatching Undertakings and Improved Working Conditions for Dispatched Workers | 23 21 | | |
| | Employee | <ul style="list-style-type: none"> Promote understanding and awareness (including overseas subsidiaries) of the Action Guidelines for Business Conduct, etc., thorough compliance education and improvement of compliance-related systems (reporting, consultations, etc.) | 14 21 | | |
| | Local community, society and government | <ul style="list-style-type: none"> Compliance with related national laws, regulations and ordinances, more stringent prefectural standards, and other agreements | 21 | | |
| Environment, safety, and quality • To conduct business activities in consideration of the environment • To provide environmental information • To manufacture and provide safe, high-quality products and services in a safe manner using safe technologies | Shareholder | <ul style="list-style-type: none"> Promoting better understanding of environment-, safety-, and quality-oriented management | 33 | <ul style="list-style-type: none"> Group Environment and Safety Committee Group Product Safety Committee Crisis Management Committee | <ul style="list-style-type: none"> Environment & Safety Dept. General Affairs Dept. |
| | Customer | <ul style="list-style-type: none"> Development and provision of products and services that help reduce environmental impact Provision of safe, high-quality products and services Compliance with related laws and regulations | 5-7, 49-54 23 43 | | |
| | Supplier | <ul style="list-style-type: none"> Implementation of more measures for the reduction of environmental impact Clarification of product safety and quality requirements Promotion of green purchasing | 33-48 23 | | |
| | Employee | <ul style="list-style-type: none"> Improved education and awareness concerning the environment, safety and health, quality, and energy conservation Realize safe and comfortable workplaces | 26 47,48 | | |
| | Local community, society and government | <ul style="list-style-type: none"> Compliance with environment-, product-, and service-related laws and regulations Proactive measures to reduce environmental impact Ensure the safety and security of the local community | 43 33-46 24,57 | | |
| Information disclosure and communication • To disclose information to stakeholders appropriately and in a timely manner and expand communication channels with them • To appropriately manage information | Shareholder | <ul style="list-style-type: none"> Disclosure of information about management status, CSR, and risks Appropriate information provision to investors and analysts Organization of a general meeting of shareholders in an open manner | 10 22 | <ul style="list-style-type: none"> Information Security Committee | <ul style="list-style-type: none"> Information System Dept. General Affairs Dept. Investor Relations & Public Relations Dept. |
| | Customer | <ul style="list-style-type: none"> Provision of appropriate information about products, services, and safety Protection of personal information | 23 | | |
| | Supplier | <ul style="list-style-type: none"> Clear statement of procurement policies Promotion of communications Appropriate administration of confidential information | 23 | | |
| | Employee | <ul style="list-style-type: none"> Promotion of in-house communications Disclosure of information about working conditions Management of information security and protection of privacy Promoting better understanding of the treatment of intellectual property rights | 24 27 18 23 | | |
| | Local community, society and government | <ul style="list-style-type: none"> Promoting better communication with the local community, society, government and related organizations (through the UBE-i-Plaza and RC Regional Dialogue, etc.) Establishment of favorable relations with mass media companies | 24 | | |
| Human rights and labor • To respect the human rights of people who are affected by the Group's corporate activities • To respect the human rights of employees, including those of partner companies | Shareholder | <ul style="list-style-type: none"> Promoting better understanding of and increased support for human rights | 25 | <ul style="list-style-type: none"> Personnel Policy Committee | <ul style="list-style-type: none"> Human Resources Dept. |
| | Customer | <ul style="list-style-type: none"> Consider people with disabilities when providing information about products and services Provision of advertisements that are not disagreeable to consumers | C4 | | |
| | Supplier | <ul style="list-style-type: none"> Provision of equal trading opportunities | 23 | | |
| | Employee | <ul style="list-style-type: none"> Improvement of the personnel system to enable a variety of employees to display their abilities Improved health and safety at workplaces and better health management by employees Sincere dialogues with employees and the labor unions Discontinuance of discriminatory employment practices and provision of equal employment opportunities Education on respect for human rights | 25 28 27 26 27 | | |
| | Local community, society and government | <ul style="list-style-type: none"> Creation and assurance of employment Compliance with labor-related laws and regulations Discussion and dialogue toward the creation of a society with high respect for human rights | 26 21 27 | | |
| Social contribution • To conduct social contribution activities toward the creation of a sound and sustainable society | Shareholder | <ul style="list-style-type: none"> Promoting better understanding of and increased support for corporate social contribution activities | 7,12-14 | <ul style="list-style-type: none"> CSR Promotion Committee | <ul style="list-style-type: none"> CSR Dept. |
| | Customer | <ul style="list-style-type: none"> Promoting better understanding of corporate social contribution activities | 7,12-14 | | |
| | Supplier | <ul style="list-style-type: none"> Promoting better understanding of corporate social contribution activities | 7,12-14 | | |
| | Employee | <ul style="list-style-type: none"> Encouragement of and support for voluntary participation in social activities | 3,20,27 | | |
| | Local community, society and government | <ul style="list-style-type: none"> Promotion of social contribution activities Better understanding of corporate social contribution activities | 2-4, 29-32 | | |

Corporate Governance and Internal Control

Initiatives to Establish and Maintain Corporate Governance

● Board of Directors

Two outside corporate directors have been appointed to the Board of Directors to bring a third-party perspective to decision making, thereby ensuring transparency and objectivity in management. Composed of seven corporate directors, of whom two are appointed from outside the Company, the Board of Directors is chaired by a director who, in principle, is not an executive officer. In addition, UBE has positioned a Nominating Committee and an Evaluation and Compensation Committee as subsidiary entities of the Board of Directors, allowing greater flexibility in the activities of the Board. Both of the committees are chaired by outside directors.

● Executive Officer System

In June 2001, UBE adopted an executive officer system with the aim of separating governance and management functions. The management team currently consists of 23 executive officers, of whom four are also directors. Executive officers carry out business operations in accordance with management policies determined by the Board of Directors, using authority delegated to them by the President & Representative Directors. To realize flexible personnel matters with regard to directors and fully enforce a performance-related pay system, corporate director and executive officer terms of service last for one year.

Basic Policies

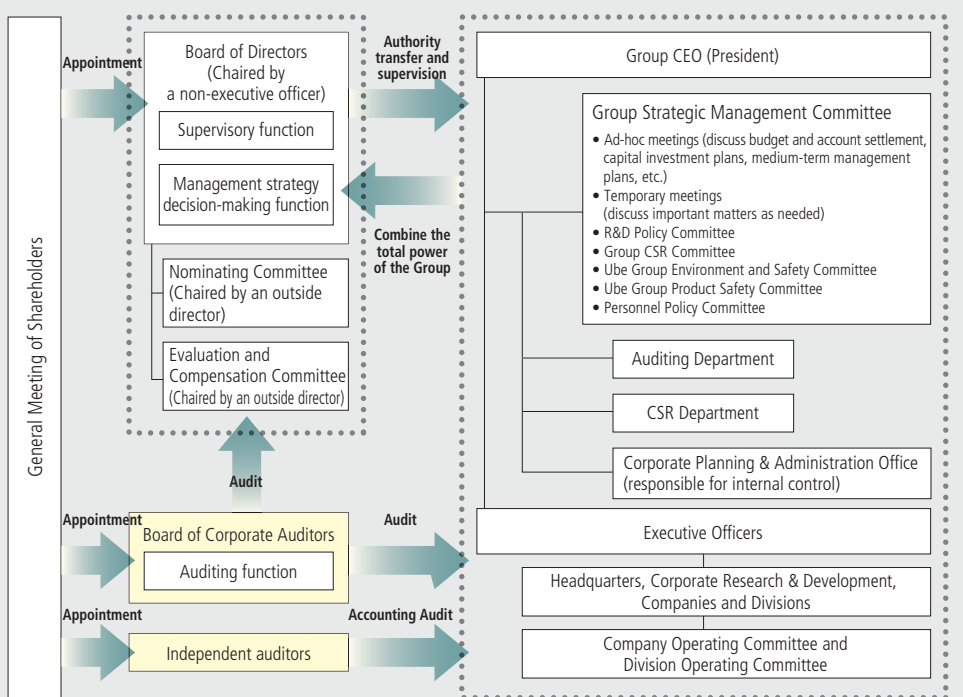
- To establish highly transparent corporate governance and an efficient and disciplined enforcement system
- Ensure ongoing business operations by formulating a business continuity plan (BCP)

● Audit System

Internal audits are conducted by UBE's Auditing Department, which reports directly to the CEO. Audits cover the entire UBE Group, including UBE's overseas subsidiaries. By checking the status of internal control and compliance with laws and regulations as well as adherence to manuals, UBE endeavors to identify potential risk across all areas of its business activities. Moreover, as a member of companywide risk management organizations such as the Compliance Committee, the head of the Auditing Department collaborates with each committee and is working to strengthen risk management systems. The corporate auditor organization consists of four corporate auditors, of whom two are appointed from outside the Company. The task of corporate auditors is to ensure that directors and executive officers perform their duties appropriately by attending important meetings, including meetings of the Board of Directors, by examining important accounting documents and by receiving reports on operations from directors and other officers.

The corporate auditors and the Auditing Department regularly exchange information, and when the auditors conduct audits, some of the Auditing Department staff will accompany and support them as required. The auditors and the Auditing Department thus work in close cooperation with each other. The corporate auditors also regularly meet the independent auditors to hear about their auditing plans and to obtain information about the implementation status. In addition to receiving audit reports from the Group's corporate auditors, audit training sessions and exchanges of opinions are held regularly for the purpose of improving the quality of the audits.

Corporate Governance Structure



Decision-Making System

- **Board of Directors**
On behalf of shareholders, the Board of Directors discusses and makes decisions on the issues provided for by the Companies Act, the basic policies of the Company and important enforcement issues from medium- to long-term perspectives.
- **Group Strategic Management Committee**
The Group Strategic Management Committee is responsible for discussing and making decisions on key matters concerning resource allocation, items that need to be adjusted from an overall Group perspective, and other key matters that affect the Group as a whole in accordance with the Group Management Guidelines and Group Strategic Management Committee rules.
- **Company Operating Committee and Division Operating Committee**
The Company Operating Committee and the Division Operating Committee are responsible for discussing and making decisions on key matters, such as business strategy, at their respective levels. They engage in these activities for Ube Industries and other UBE Group companies in accordance with the Group Management Guidelines and Company/Division Operating Committee rules that govern their operations.

Risk Management Systems

Companies conduct activities to make maximum profit while dealing with a range of risks. The UBE Group is developing and reinforcing its risk management system so that it can implement appropriate measures to identify and assess the probability and impact of risks that might prevent the attainment of its business objectives.

In order to deal with specific types of risks, we have established the Group Environment and Safety Committee and the Group Product Safety Committee. For the entire Group, these two committees formulate and actively implement policies concerning the environment and safety, and product safety, respectively. In addition, the Group has established the following committees to deal with individual risk categories.

● Information Security Committee

Due to the digitization of a wide range of information, companies are facing the risk of information leakage, falsification and loss, and these risks are having a serious influence on their corporate activities. The UBE Group has established its information security policies to ensure information security, and it is raising employees' awareness of these policies and monitoring their compliance. We also established information security rules and regulations to ensure appropriate information management.

● Restricted Cargo and Export Management Committee

We constantly reinforce awareness within the Group of the fact that the basic requirement of export management is to prevent the illegal export or supply of goods and technologies that are subject to export controls under laws and regulations designed to maintain international peace and stability, such as Japan's Foreign Exchange and Foreign Trade Act.

● Crisis Management Committee

In order to deal with environment- and safety-related accidents and disasters, including those at factories, and occupational injuries, the UBE Group established crisis management regulations, a crisis management manual and other measures to respond to emergencies that could occur either in Japan or overseas. Through such measures, the Group maintains a system that enables rapid and appropriate responses to a variety of incidents, thus minimizing the impact on its business operations. Moreover, the Overseas Crisis Management (OCM) committee has been established within the Crisis Management Committee to take charge of crisis management for employees who are on business trips or working overseas.

Response to Disasters

The UBE Group has formulated a business continuity plan (BCP^{*1}) for possible earthquakes in the Tokyo metropolitan area as well as the Tonankai and Nankai regions. This BCP allows us to promptly respond to such emergencies and maintain business operations.

Based on this BCP, the Group established a disaster response headquarters immediately following the Great East Japan Earthquake in March 2011. As a result, we were able to rapidly assess the status of damage, confirm the safety of employees and other related parties and maintain facilities. These and other actions enabled the Group to resume business operations in a timely manner.

The Group disbanded its New Influenza Strain Crisis Management Task Force following an announcement by the Japanese government that the H1N1 influenza strain had been contained. However, we are in the process of drafting a new basic Groupwide manual to be fully prepared for future outbreaks.



Guest Message

Moriharu Hiragimoto, Vice President, Japan System Service Co., Ltd.



UBE's Obligation to Ensure the Safety of Overseas Operations

I recently visited UBE Latin America Servicios Ltda., immediately after it commenced business operations. I had an opportunity to observe and offer advice regarding the Company's branch office, which was still under construction, the president's accommodations, and the routes used to commute to and from work.

With the exception of production facilities previously operated in the Philippines, UBE's overseas bases are located in relatively safe countries. I believe, however, that business opportunities will expand in India and Africa in the years ahead. Accordingly, the importance of establishing countermeasures for a variety of overseas safety-related issues, centered on the OCM committee, is increasing.

Glossary

*1. BCP (business continuity plan): A plan made to minimize the suspension of business in the event of a disaster and to recover its functions as early as possible to ensure business continuity.

The Great East Japan Earthquake

The UBE Group's Response to the Disaster



Initial Response and Future Issues

The UBE Group drafted a BCP for an earthquake occurring directly below the Tokyo metropolitan area and regularly conducts field drills in anticipation of a variety of similar risks. The manual we prepared is based on a BCP that covers large earthquakes rated at 6 or higher on the Japanese earthquake scale. Accordingly, because of the length and magnitude of the March 11 earthquake, we immediately activated our disaster response headquarters at the Tokyo Head Office. In addition to rapidly confirming employee safety and the extent of damage to facilities, we undertook various actions on a continuous basis that included gathering and conveying disaster- and traffic-related information, assisting employees who wished to return home and providing accommodations to those unable to return home. (Please refer to the table below, "Earthquake Response Overview," for more details.)

The field drills we had undertaken previously proved useful during the recent disaster, and the disaster response headquarters functioned appropriately. However, the earthquake raised issues that require further examination.

Earthquake Response Overview (Tokyo Head Office)

| | | |
|-----------------------|---|--|
| Friday, March 11 | 14:46 | Earthquake occurs along the Pacific coast of Northeast Japan |
| | 15:20 | Orders are issued to activate the disaster response headquarters at the Tokyo Head Office and to broadcast a tsunami alert The Tokyo Head Office building's disaster control center instructs people to remain indoors Disaster-related injuries on each floor confirmed (one person suffers minor injuries) |
| | 16:05 | Efforts to confirm the status of the Chiba Petrochemical Factory commences (no injuries or damage) |
| | 16:10 | Information on possible wait times and accommodations are broadcast to each floor |
| | 16:40 | UBE's internal emergency website goes online |
| | 17:20 | The disaster control center cancels the order to remain indoors |
| | 17:45 | Permission is given to employees to return home |
| | 18:40 | Distribution of emergency food rations begins |
| Saturday, March 12 | 20:00 | Head count of people remaining on the Company premises commences |
| | 5:45 | News on the restoration of train service on the JR Keihin-Tohoku and Yamanote lines is broadcast |
| Sunday, March 13 | 6:00 | Order for employees to promptly return home, with one employee of each company or division to remain, is transmitted to each floor |
| | 9:00 | Meeting held by the Tokyo Head Office's disaster response headquarters |
| | 11:00 | Disaster response headquarters' staff returns home in shifts |
| 10:00 | Emergency removal of overturned equipment and fixtures begins and is completed by 8:00 p.m. | |

Lessons Learned (Abridged)

- (1) An emergency communication network at the Tokyo Head Office must be established
- (2) The disaster response headquarters must be restructured so that initial response can be undertaken by those employees who are present
- (3) Internal communication system and procedures must be upgraded
- (4) Equipment for use by the disaster response headquarters must be stored in the same location as said headquarters
- (5) Designated areas on each floor should be equipped with televisions and radios to facilitate information sharing
- (6) Requests to return home must be quickly and thoroughly processed and follow-up reports provided
- (7) Ensure that employees are always prepared to return home on foot (have walking shoes available and confirm routes)



The Impact of the Disaster on the UBE Group as of June 10, 2011

Despite sustaining disaster-related damage to certain facilities and businesses that forced a suspension of operations, the Group is presently operating at full capacity. We sincerely apologize for any difficulties and concerns caused by this suspension. We are truly grateful for all the assistance we received in our efforts to resume operations.

Disaster Impact and Progress Report

| | |
|--|---|
| UBE | Chiba Petrochemical Factory (Ichihara City, Chiba Prefecture) |
| | Operations were suspended immediately following the earthquake until March 18 so that safety checks could be performed and power reconnected. Operations were phased in starting on March 19. |
| | The Cement & Construction Materials segment's sales office in Sendai City, Miyagi Prefecture Resumed operations on March 14. |
| Ube Chemical Factory (Ube City, Yamaguchi Prefecture) | |
| Shipments of methyl ethyl ketone (MEK) oxime were suspended starting on March 17 due to disrupted raw material supply. Production resumed in June. | |
| UBE Group (consolidated subsidiaries, directly related ready-mix concrete companies) | Ube-Nitto Kasei Co., Ltd., Fukushima Factory (Kooriyama City, Fukushima Prefecture) |
| | The factory resumed operations on April 11 after undertaking repairs. |
| | Ube Material Industries, Ltd., Chiba Factory (Ichihara City, Chiba Prefecture) |
| | Operations were phased in starting on March 14. |
| | Daikyo Kogyo Co. Ltd. (Ichinoseki City, Iwate Prefecture) |
| | All factories resumed operations after repairs were completed to certain facilities at the mixed cement factory. |
| Samegawa Ready-Mixed Concrete Co., Ltd. (Iwaki City, Fukushima Prefecture) | |
| All factories resumed operations after undertaking repairs. | |
| Fukushima, Ltd. (Fukushima City, Fukushima Prefecture) | |
| Fukushima Ltd. resumed normal operations on March 22 after undertaking repairs. | |



UBE's internal emergency website



Disaster Response at the Chiba Petrochemical Factory

Actions taken in response to the earthquake on March 11 are as follows:

- During the earthquake: Factory operations ceased and checks were performed in sequence (no facility damage or employee injuries). Firefighters and fire trucks were deployed in accordance with the Chiba Petrochemical Factory's internal disaster prevention system.
- Tsunami warning issued: All employees took refuge on the second floor and roof of the main building until the evacuation order was withdrawn after 5:00 p.m.
- Nearby fires: Plant firefighters participated in joint fire-fighting efforts.

Drills previously undertaken at the Chiba Petrochemical Factory (which produces synthetic rubber and polyethylene) were based on a maximum earthquake level of plus 5. However, such drills were insufficient as they did not address tsunami or aftershocks of the magnitude registered or the possibility of nearby fires. We will undertake more effective earthquake and disaster countermeasures by upgrading action guidelines that address these circumstances.



The Tokyo Head Office



Samegawa Ready-Mixed Concrete Co., Ltd. (Iwaki City, Fukushima Prefecture)



Caravans delivering materials provided by Ube City, Tokyo and other locations to assist disaster-afflicted areas



Establishing Project Teams to Address Long-Term Issues

We have established five project teams under the Great East Japan Earthquake Reconstruction Headquarters in order to address at a companywide level problems that will take time to solve, including restrictions on raw material procurement, the effect of the nuclear accident and power supply-related issues. To maintain business continuity, we will gather information while making decisions and publicizing the Group's initiatives to respond to these issues.

Project Teams

Great East Japan Earthquake Reconstruction Headquarters

Team that conducts surveys to address supply responsibilities

Team that responds to the effects of radiation on distribution

Team that responds to the effects of radiation on employees

Team that assists suppliers and disaster victims

Team that addresses power supply issues



Assistance Provided by the UBE Group

The UBE Group has donated a total of ¥100 million, including material support, to provide disaster relief. In addition, UBE is collecting relief money from employees and union members in cooperation with the Company's labor union. As of April 28, a total of ¥29,252,298 has been donated to the Japanese Red Cross Society and other charitable organizations.

In addition, the assistance provided by volunteers is vital to improving the lives of those residing in disaster-stricken areas. Medical staff from Ube Industries Central Hospital has been dispatched to these areas, while we grant vacation time and cover half of the transportation costs of employees who wish to engage in related volunteer activities.

A full recovery from this unprecedented disaster will take many years. The UBE Group is determined to contribute to the recovery of disaster-affected areas across all of its business activities in a wide range of areas, including equipment, material and energy.

Compliance

Basic Policies

- To comply with corporate ethics and social norms without fail
- To comply with laws, regulations and contractual obligations
- To eliminate the presence of antisocial elements

Measures to Ensure Effective Compliance

In order for a company to remain in business, it not only has to provide quality products and services to the market, it also has to comply with social rules, including laws and internal company regulations. Such actions help gain the trust of suppliers, consumers, shareholders and the local community and are vital for companies to be recognized as important members of society.

To ensure effective compliance, the UBE Group maintains organizations and undertakes initiatives that will raise compliance awareness among company officers and employees throughout the Group.

● Increasing Awareness of UBE Action Guidelines

The Group distributes UBE Action Guidelines (see page 14) booklets to all company officers and employees in order to increase awareness of behavioral standards that must be adhered to.

● Declaration and Measures Concerning the Elimination of Anti-Social Elements

The UBE Group formulated the Basic Policy for Anti-Social Forces in order to clarify that it has absolutely no relationship with such antisocial elements as organized crime groups or corporate extortionists. The Group declares to all parties concerned its unwavering commitment to upholding this policy on the UBE website.

● Providing Compliance-Related Information

Taking advantage of the UBE Group's intranet, we are providing information on laws and regulations that must be followed by company officers and employees. Particularly with regard to the Antimonopoly Act, we have prepared a manual distributed within the Group containing specific actions that must be followed by company officers and employees. The manual was drafted with full

consideration given to the various aspects of the Group's operations that are affected by this act. In addition, we annually hold conferences regarding the Act against the Delay in Payment of Subcontract Proceeds, targeting managers in charge of purchasing and manufacturing. In addition to conducting information exchanges, the Group compiles Q&A booklets and holds individual briefings to ensure compliance with this act. Through these actions, we are promoting greater understanding of relevant legal regulations Groupwide and, in turn, ensuring thorough compliance.

● UBE C-Line Internal Notification System

We are establishing mechanisms that facilitate the reporting of compliance-related problems directly to the divisions responsible for compliance and external contacts (lawyers) with the purpose of quickly identifying and correcting compliance-related violations. The Group makes available on its intranet and sets out in its Action Guidelines booklets an overview of the notification system and related contact information. We also conduct group workshops and other measures focusing on compliance. Through the above initiatives, the Group is striving to increase awareness of compliance among company officers and employees.

● Online Education via e-Learning

The UBE Group holds online compliance training sessions twice a year geared toward all company officers and employees. We have created instructional materials for these training sessions that contain several illustrations to make them easy to understand as well as relatable.

● Compliance-Related Group Workshop

In conjunction with conducting stratified group education, which includes providing training for new employees and company officers, the UBE Group implements group workshops at individual business offices. In addition, we invite lawyers to provide regular training sessions on the Antimonopoly Act.

Compliance System

Overview of Systems Ensuring Compliance

● Compliance Officer (CO)

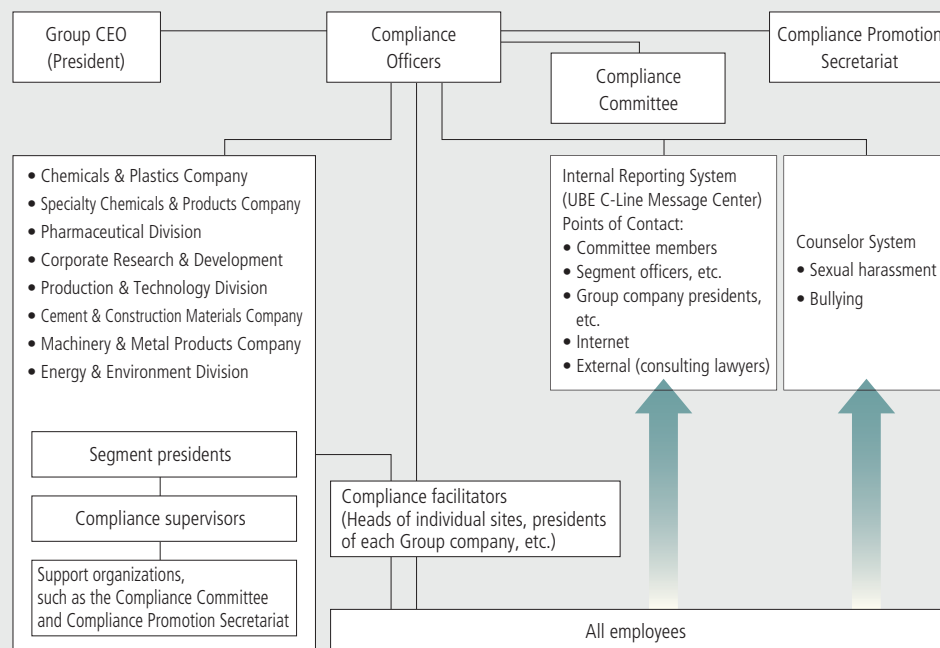
Two directors have been appointed as Compliance Officers (one of whom was appointed as Chief Compliance Officer). Their task is to promote and ensure compliance throughout the UBE Group by supervising compliance-related activities.

● Compliance Committee

The Compliance Committee advises the Compliance Officers and deliberates on important compliance-related issues. To ensure transparency, a legal adviser (a consulting lawyer) has been invited to serve as an outside committee member.

● Compliance Promotion Secretariat

This unit administers compliance-related activities under the direction and supervision of the CO.



Information Disclosure and Communication

Relationships with Shareholders and Investors

● Interactive Communication through IR Activities

UBE always conducts its IR activities in good faith, striving to promote understanding of the UBE Group's management strategy and business conditions in capital markets and to implement transparent management in order to earn the trust of the market. To this end, we are disclosing information related to management strategy and business conditions in a timely, appropriate and fair manner.

In addition, we are actively increasing opportunities for interactive communication with market participants, such as shareholders, investors, and securities analysts, thereby promoting mutual understanding and incorporating market perceptions and evaluations into our management. Based on the aforementioned IR policy, we are holding briefing sessions and tours of our factories that target both domestic and foreign investors as a means of improving direct communications with them. We are also dispatching a range of information through our website.

The following were the main IR activities conducted in fiscal 2011.

- Results briefings for institutional investors and securities analysts
(Held after full-year results were announced)
- Web-based conferences for institutional investors and securities analysts
(Held on the day that quarterly results were announced)
- Overseas IR
(Individual visits to institutional investors in Europe, the United States and Asia: Three times)
- Small meetings held with the President (Three times)
- Factory visits (Two times)
- Business briefing session (One time)
- Individual interviews with institutional investors and securities analysts
(Approximately 230 per year)

We publish a semiannual financial report entitled *Stockholder Communication* for individual shareholders to introduce UBE's business details and strategies in a more intelligible manner.

UBE will continue to adhere to its commitment to timely, appropriate and fair information disclosure, and it will enhance interactive communication with investors.

● Ordinary General Meeting of Shareholders

UBE holds its ordinary general meeting of shareholders in Ube City, Yamaguchi Prefecture, where the Company was founded, in late June of every year. More than 1,000 shareholders attend this meeting each year. After the meeting, we



The 105th Ordinary General Meeting of Shareholders

- Basic Policies**
- To disclose information to stakeholders appropriately and in a timely manner and expand communication channels with them
 - To appropriately manage information

hold business briefings that help shareholders deepen their understanding of UBE's business, including a brief explanation by the president of what progress has been made in the medium-term management plan. We also provide notification of the meeting in a timely manner via our website to increase the availability of relevant information and provide enough time for shareholders to fully examine the meeting agenda. These actions are undertaken with the aim of making UBE's ordinary general meeting of shareholders more open and transparent.

● Dividend Policy

UBE recognizes the payment of dividends to shareholders as an important responsibility to be fulfilled by the Company for its shareholders and makes it a fundamental policy to pay dividends at a level that is commensurate with its earnings results. At the same time, we must also bear in mind the need to maintain an adequate level of retained earnings in order to secure profits for shareholders on both a medium- and a long-term basis. We determine the amount of dividends to be paid to shareholders based on these overall considerations. Based on our current medium-term management plan, we will pursue a steady increase of the dividend payment amount in line with the improvement of our business performance, setting the target payout ratio at 20% to 25%. In fiscal 2011, we increased our dividend per share to five yen.

● Ratings

UBE regards "sustained improvement of its financial position" as one of its key management priorities, and the entire UBE Group has been making efforts to achieve this target. UBE's current rating by the Japan Credit Rating Agency, Ltd. is BBB+ ("positive"). We will push ahead to sustain the improvement of our financial position and upgrade our rating.

● Socially Responsible Investment (SRI) Index Rating

UBE has been selected by the FTSE4Good Global Index, a leading SRI index, since 2008. This index measures the performance of companies that meet globally recognized corporate responsibility standards in terms of environmental measures as well as employment, labor and human rights issues and is thus important as an investment selection standard for investors deeply concerned with CSR. The FTSE Group, which compiles this index, is jointly owned by the *Financial Times*, a British financial newspaper, and the London Stock Exchange and develops leading stock and securities-related indices.

In addition, Morningstar Japan K.K. has selected UBE to be included in the "Morningstar Socially Responsible Investment Index" (MS-SRI) since 2009. In this first SRI index in Japan, the social character of companies is comprehensively rated in five areas (corporate governance/accountability, markets, employment, social contributions and the environment). Along with this rating, the names of companies that comprise this index are determined based on market liquidity. Out of a total of 301 companies, UBE was selected along with 150 others for inclusion in the MS-SRI index in 2010.



FTSE4Good



Measures to Increase Customer Satisfaction

● Participation in Chemical Safety Management Initiatives in Japan and Overseas

To date, we have been actively gathering and communicating the hazard information of our chemical products primarily by taking part in the ICCA*¹ HPV Program*² and the Japan Challenge Program.*³

Through the Japan Chemical Industry Association (JCIA), we also actively participate in and support the ICCA in its voluntary Long-range Research Initiative (LRI), which focuses on the effects of chemical substances on human health and the environment.

● Quality Control Activities

In addition to its ISO quality management system, the UBE Group began undertaking quality and product safety audits in fiscal 2007 while further enhancing product safety. We will raise customer satisfaction by preventing these quality and product liability issues.

Intellectual Property Initiatives

UBE promotes intellectual property-related activities using a “three-in-one” strategy that encompasses the Intellectual Property Department as well as the Company’s R&D and business divisions. The purpose of this approach is to acquire patents that strengthen business operations, which are the source of UBE’s competitiveness.

In order to raise awareness of intellectual property rights, we established the Intellectual Property and Information Solutions Committee and foster a corporate culture that values intellectual property. In addition, the Group appoints a manager in charge of patent acquisition in each product area while working to increase the skill level of its inventors by implementing various types of employee training.

The Group’s efforts to encourage the development of global intellectual property are contributing to the sustainable growth of corporate value in this area.

Basic Purchasing Policies

● Fair and Unbiased Transactions

We are committed to treating our suppliers in a fair and unbiased manner based on free competition and constantly search for opportunities to deal with new suppliers. We will cooperate with suppliers on a fair and equal footing and promote mutual understanding and relations of trust over a long-term basis.

● Objective Selection of Suppliers

We will choose suppliers from the viewpoint of economic rationality by comprehensively examining their quality, prices, and delivery schedules.

● Compliance with Laws and Regulations, and Confidentiality

We will comply with all related laws and regulations and with social norms, and we will protect all the confidential information obtained in our purchasing activities.

● Green Procurement and Purchasing

We will choose environment-friendly products in our purchasing activities.

UBE Engages in Purchasing Activities That Thoroughly Adhere to Its Purchasing Policies.

● Approach to Green Purchasing*⁴

In line with the Law on Promoting Green Purchasing, the UBE Group encourages its employees to choose eco-friendly products in purchasing stationery goods, copy paper, work uniforms and toner. We aim to increase the use of eco-friendly copy paper to 100%; UBE’s percentage already stands at over 99%, exceeding the Group’s target of 77%. In addition, vegetable oil-based ink has been used to print this CSR report on paper certified by the FSC.*⁵ Through these efforts, the UBE Group’s green purchasing rate has improved to 66%.

● Measures Concerning CSR Procurement

The Group is introducing the CSR Procurement Initiative in its three-year plan that began in fiscal 2011. The CSR Procurement Initiative establishes a set of criteria for deciding which suppliers to do business with based on the status of their CSR measures. In fiscal 2012, we plan on surveying suppliers to determine the current status of their CSR activities.

Glossary

*1. ICCA: International Council of Chemical Associations

*2. HPV Program: International safety management activities that involve gathering information on and evaluating the hazards of High Production Volume Chemicals. The HPV Program is being actively promoted by the OECD and ICCA.

*3. Japan Challenge Program: Chemical safety inspection program that gathers information on the safety of existing chemical substances in Japan through industry-government collaboration and disseminates that information throughout Japan and the rest of the world.

*4. Green purchasing: To purchase products and services that have minimal environmental impact from suppliers who are committed to reducing their environmental impact, considering not only the quality and price of the products, but also the environment.

*5. FSC: Forest Stewardship Council

Internal Communication

With the aim of improving its CSR, the UBE Group encourages internal communication. We convene corporate briefings for corporate officers and managers as well as roundtable meetings for corporate officers and factory employees. The casual exchange of opinions among participants is a characteristic of these gatherings. In addition, the Group utilizes its intranet, internal publications and other forms of communication to deepen mutual understanding. Such efforts foster the development of a sense of unity within the Company and increase employee morale.

Communication with Local Communities, Society, Government and Individual Organizations

● Responsible Care (RC) Regional Dialogue Meetings

The Japan Chemical Industry Association RC Committee (formerly known as the Japan Responsible Care Council (JRCC)) held the 8th RC Regional Dialogue meeting in the Chiba district in February 2011 with the purpose of building a relationship of trust with local residents.

In February 2011, the Japan Chemical Industry Association RC Committee held the 8th annual RC Regional Dialogue meeting in the Ube district. This meeting was sponsored by the Committee's four member companies and held at the Ube Chemical Factory. Following a tour of the facilities and an explanation of RC initiatives undertaken over the past year, Ube City announced the establishment of its first ever environmental policy. The discussions that followed were divided into two themes: "managing chemical substances" and "the role of factories in community development."

● Tours of Local Industrial Facilities

The UBE Group participated in tours of local industrial facilities entitled, "Social Tours for Grownups" in fiscal 2011. These tours are conducted by a local council established to promote industrial tourism in the cities of Ube, Mine and Sanyonoda.

Various tours were undertaken at UBE Group facilities, with 1,223 people participating. Such activities included a tour showcasing the production and history of cement (Isa Cement Factory and highlighting roads used exclusively by UBE); a tour highlighting the Okinoyama Coal Center and its founder

Sukesaku Watanabe (UBE-i-Plaza); exhibits of numerous products made from limestone (Ube Material Industries, Ltd.); a tour of the Ube Cement Factory's recycling facilities; an exhibit profiling businessmen who have contributed to the welfare of the community by employing people with disabilities (Libertas Ube, Ltd.); and a tour showcasing energy use and UBE's operations (Okinoyama Coal Center).

● Participation in Local Events

In June 2010, the Chiba Petrochemical Factory participated in the Goi-Rinkai Festival, while the Group employees in the Chiba district held the UBE Friendship Festival in August 2010. The Ube Chemical Factory held the "The Fifth Chemical Summer Festival" in July 2010, in which as many as 2,500 people participated.

Each UBE Group company displayed exhibits at the Yamaguchi Ikiki Eco Fair held in October 2010. This fair is part of Kirara Product and Exchange Fair 2010, the largest event of its kind held in Yamaguchi Prefecture. In November 2010, Group employees and their families participated in the 59th Ube Festival. In February 2011, the Sakai Factory displayed exhibits of the polyimide thermal control film installed in the Hayabusa satellite at "Sakiance 2011," an annual science fair held in the Sakai Education and Culture Center.

● Business Facility Tours

We invite various stakeholders, beginning with nearby schools, to tour our business facilities. In fiscal 2011, the number of people participating in tours at the Company's comprehensive information center, UBE-i-Plaza, reached 7,000. Every year, the Chiba Petrochemical Factory welcomes students from Ichihara City's Keiyo Elementary School. In August 2010, the Sakai and Ube Cement factories each held tours for employee families. Fostering greater interaction among family members, these tours offered them an excellent opportunity to get an up-close view of these facilities.

● Volunteering in Afforestation and Flower Campaigns

In November 2010, the UBE Group participated in the Third Forest Creation Experiential Activity for Water Conservation, sponsored by the Yamaguchi Prefecture Mine Agriculture and Forestry Office, in which 100 employees took part in the pruning, thinning and planting of Japanese cypress trees.

Employees also voluntarily plant flowers within the premises of UBE Group sites as a beautification measure each year. In fiscal 2011, the Ube Chemical Factory once again competed in flowerbed contests held by Ube City, winning the Grand Prize in the spring and fall of that year.

RC Regional Dialogue meeting in Chiba



Factory tours held for families at the Sakai Factory



People visiting the UBE-i-Plaza in Ube City



Human Rights and Labor

Basic Policies

- To respect the human rights of people who are affected by the Group's corporate activities
- To respect the human rights of employees, including those of partner companies

Fundamental Philosophy

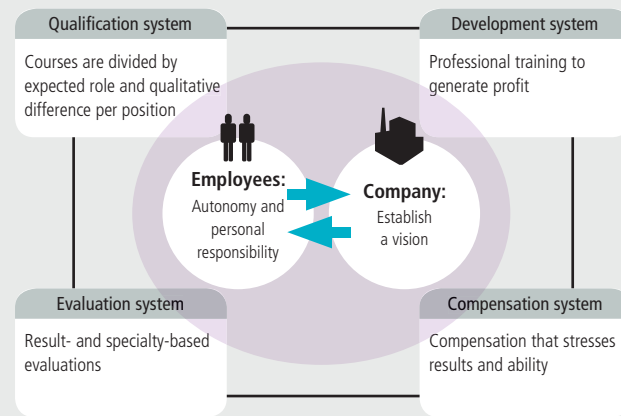
Respect for Human Rights

In its Action Guidelines for Business Conduct, the UBE Group will respect human rights and develop healthy, bright and motivating workplaces. We regard respect for human rights as a fundamental rule guiding the corporate activities of the UBE Group.

Ideal Personnel

The UBE Group gives top priority to human resources among its management assets, and it is committed to developing highly skilled professionals who can act independently and produce results. The basic image that the UBE Group promotes for individual employees is that of someone who has unparalleled skills, sets their own goals, works independently and takes on new challenges while being unafraid of change.

The Interconnecting Aims of Each System



Personnel System

UBE has introduced an evaluation system that incorporates a goal management system and a performance-based component. By organically linking the development, evaluation, qualification and compensation systems, and impartially evaluating individual efforts, UBE seeks to create a workplace that is challenging and motivating for every employee.

Human Resource Development

Initiatives

In order to develop superior human resources, we must enhance development in the following key areas: 1) On-the-Job Training (OJT); 2) Instructor-Led Training (Off-the-Job Training); and 3) Self Improvement Support Programs. At the same time, for career development, we have instituted a support system so

that all UBE employees can fully exercise their abilities in carrying out their work. Under this system, employees prepare "Career Development Sheets" and "Employee Development Plan Reports," opportunities are provided for interviews with their superiors and, when necessary, the employees are rotated to enable them to gain a broad perspective and learn specialized skills.

Strengthening Global Human Resources Development

Given that the proportion of overseas business development is expected to steadily increase, training and retaining employees who can perform on the global stage has become an issue for the UBE Group. Starting in fiscal 2012, we plan to revamp our global human resources development system through such measures as strengthening employee awareness of globalization, expanding opportunities to gain overseas experience, and introducing and revising individual global training programs.

In addition, we gather human resources managers from Thailand, Spain and Japan in order to exchange opinions on the Group's human resources development and personnel systems in each country.

Looking ahead, the Group will hold the Global Human Resources Meeting

Training System Overview

| | | Career Education | Training by Theme | International Business Personnel Development | Support for Self-Improvement | Independent Training | Affiliates |
|--------------|-------|--|--------------------------|--|--|---|--------------------------------------|
| Executives | | New executive training | | | | | |
| Manager | | Management leader (GII) training | Line management training | Global leader training | Various types of home-study courses and assistance for acquiring official certifications | Company- and division-specific training | Group company new executive training |
| | | Middle-rank management training | | | | | |
| | | New management training | | | | | |
| | | | | | | | |
| Generalist 1 | Key 1 | | Refresher course | Business English training | TOEIC exams | | |
| | Key 2 | New supervisor training | | | | | |
| | Key 3 | Key employee twentieth-year training | | | | | |
| Generalist 2 | Key 4 | Career design training | Elder training | Overseas MBA programs | | | |
| | Key 5 | Key employee tenth-year training | | | | | |
| | Key 6 | Generalist third-year training | | | | | |
| Generalist 3 | | Follow-up training for generalist | | Overseas trainee system | | | |
| | Key 7 | Follow-up training for key employees | | | | | |
| | | Training for newly hired generalists | | | | | |
| | | Training for newly hired key employees | | | | | |

*Key: Key employee

on a yearly basis and promote initiatives to address globalization in the area of personnel.

● **Environment and Safety Education**

We provide employees with practical education on the environment and safety and encourage all employees to acquire necessary knowledge, practical skills and relevant qualifications, such as the public certification required for the operation of equipment in factories.

In addition, we have incorporated mental health education within career education courses (training for new managers, etc.) to ensure that employees receive appropriate training according to their particular circumstances. We have also included the elements of environmental impact assessment in our in-house documents that are circulated for managerial decision making on capital investment and in written proposals submitted for improvement activities to be conducted within the organization, aiming to raise the environmental awareness of all employees.

Diversification of Employment

UBE recruits and employs personnel from a wide array of fields regardless of gender or social background. Each UBE employee is able to fully exercise his/her abilities to make a useful contribution to the Group's various work settings.

● **Reemployment System**

In fiscal 2007, the UBE Group introduced a reemployment system for retired workers mainly to assist in employee training by passing down their skills and knowledge to the next generation. The reemployment period is set at one year and can be extended each year. In fiscal 2011, we reemployed about 81% of those who retired that year.

A Visit to Libertas Ube, Ltd.

Entering its 20th year of operation, Libertas Ube, Ltd. plays a central role in the UBE Group's network for employing people with disabilities. Here, President Arita describes Libertas Ube efforts to promote and remove psychological barriers to the employment of people with disabilities communitywide.

● **Promoting the Employment of People with Disabilities**

Libertas Ube, Ltd. was established as a special-purpose subsidiary in April 1991 in order to promote the employment of people with disabilities. To this end, Libertas focuses on such initiatives as promoting staffing for custodial work at various Group companies as well as working in digital printing; encouraging increased integration; supporting efforts to encourage hiring Groupwide as well as by local businesses; and working to raise awareness among average citizens. In 2009, we received a Certification of Good Standing as an Employer of Persons with Disabilities and acknowledgement as a Yamaguchi Certified Business That Promotes the Employment of People with Disabilities (No. 1). Two thirds of Libertas' employees are registered with the government as people with disabilities.

● **Four Key Concepts**

A disability is only one aspect of a person's individuality and is not a barrier

to exercising one's talents. We aim to create a society where people with disabilities can prosper and live comfortably with the non-disabled based on the four key concepts of: "disability is only one aspect of individuality," "mutual cooperation" "showing consideration but not treating people differently" and "removal of psychological barriers."

● **Fully Utilizing the Individuality of People**

Approximately 500 business people and educators from various sectors visit Libertas each year. After visiting, everyone leaves with the impression that anyone, even a person with disabilities, can be employed to their full ability. In addition to providing practical training, we have improved the atmosphere of the Company so that it is more suitable for people with disabilities, especially for those with mental disabilities and developmental disorders. I am very pleased that Libertas plays a useful role in creating better lives for people with disabilities.



President Shinjiro Arita (center)



Staff Message

Takashi Oohama, Digital Team, Libertas Ube, Ltd.



Making Each Day Special

There have been some days recently when I physically do not feel very well. Because of this, when I reach the small goals I set for myself every day, I say to myself: "It was a good day because I did a great job at work." This might be something that you take for granted, but for me, having this opportunity is one of the small joys of life.

● **Employment of People with Work Experience**

The UBE Group proactively focuses on hiring mid-career workers who have expertise and knowledge in technological areas in which the Group's human resources are insufficient. After entering the Group, these mid-career workers exercise their abilities by using the experience gained at their former workplaces.

● **Hiring Foreigners**

With globalization continuing to increase, UBE Head Office and facilities in Japan need to become more international. Accordingly, we will expand personnel exchanges with the Group's non-Japanese employees based overseas and actively hire foreigners in Japan in order to provide opportunities for employees to use their experience with different values and cultures.

● **Employment of People with Disabilities**

The UBE Group actively undertakes measures to promote the employment of people with disabilities. We organized a network to support the employment of people with disabilities Groupwide. To this end, the Group leverages relevant expertise accumulated in our special-purpose subsidiary, Libertas Ube, Ltd.

UBE's Employment Status

| FY | 2009 | 2010 | 2011 |
|---|------|------|------|
| New graduates | 131 | 148 | 131 |
| New graduates deployed as generalists | 46 | 53 | 56 |
| Mid-career employees | 107 | 100 | 6 |
| Percentage of people with disabilities (annual average (%)) | 2.09 | 2.03 | 2.15 |
| Percentage of reemployment | 60.8 | 70.7 | 80.8 |

Quality Working Environments

In order to enable employees to fully display their abilities, the Group promotes comfortable working environments that maintain a good work-life balance while accommodating a variety of different work styles.

● **Respect for Human Rights at Workplaces**

We have established the Human Rights Education Promotion Committee, which provides human rights education to employees, including training for company officers, training separated by workplace and rank, and external training courses. We implement Groupwide training programs via e-learning to ensure that all employees have a proper understanding of and fully recognize human rights issues. Such initiatives help ensure comfortable work environments where employees respect and work comfortably with each other.

● **Work-Life Balance**

Childcare and Nursing Care Leaves

To maintain a good balance between employees' work and private lives, UBE has introduced a childcare and nursing leave system. In addition, depending on how much time they require to take care of their children or other family members, employees can work shorter or flextime hours as well as take time off or limit the number of overtime hours worked.

In accordance with the Law for Measures to Support the Development of the Next Generation, we raised the following three initiatives under our three-year

medium-term action plan from fiscal 2010 onward: 1) Expand systems that promote shorter working hours to facilitate child-rearing; 2) Increase childcare leave; and 3) Encourage male employees to take childcare leave. We will gradually implement these initiatives in fiscal 2012.

Incentives for Taking Annual Paid Vacations

As an incentive for getting employees to systematically take annual paid vacations, not only do we ask employees to set scheduled vacation dates in advance for every six-month period, but we also take steps to reduce actual working hours by setting an annual paid vacation incentive day.

Flexible Working Systems

We have introduced flextime, self-managed work* and other systems to enable employees to work in a flexible and efficient manner. We are also committed to appropriately managing employees' working hours. For example, we demand that departments with long overtime work hours implement measures to reduce these hours and arrange consultations between employees and industrial doctors.

* Self-managed work: A system that entrusts employees to voluntarily make decisions regarding how to undertake their duties and the allocation of work time in order to achieve work-related goals.

● **Leave for Volunteer Activities**

The Group has established a system that enables UBE employees to use accumulated leave time for volunteer activities that contribute to society or local communities.

● **Relationship with the Labor Union**

UBE has been maintaining a favorable labor-management relationship based on a collective labor agreement concluded with its labor union. The two parties exchange opinions frankly and discuss matters at various labor-management meetings attended by top management, which helps management raise employees' awareness of its policies and plans and helps the labor union members have its opinions reflected in the corporate management policies.



Staff Message

Megumi Matsumoto, General Affairs & Human Resources Office, Human Resources Dept., Personnel Training Group



Enabling Both Work and Childcare

I was on childcare leave until my baby turned one year old. At first, looking after a baby kept me very busy every day, but I was able to spend a lot valuable time with my child. Although being nervous and uncertain before returning to work, I was greatly reassured by my manager, who said they would wait for me to come back, as well as by being in regular contact with the office. On my first day back, many of my coworkers warmly greeted me. I once again was reminded of how important both my work and raising a child is to me. I am currently working shorter hours thanks to the understanding and cooperation of my workplace. I will always be grateful for this experience. Having received the cooperation that enabled me to balance both work and childcare, I very much want to support all of my friends at UBE who wish to limit their duties in order to fulfill their childcare or nursing responsibilities.

Developing a Comfortable Workplace and Undertaking Initiatives to Maintain Employee Health

● Meet and Greet Campaign

The UBE Group continues to implement the Meet and Greet Campaign to encourage all employees to exchange words of greeting and encouragement as a way of promoting better communications at the workplace. In fiscal 2011, the Meet and Greet Campaign was undertaken at 70 operating sites within the Group.

● Mental Health Care

The UBE Group works to increase the mental health of its employees by ensuring that all workplaces have industrial physicians, nurses and other health specialists available. We conducted mental health training sessions focusing on self care and line care for new employees, mid-level non-managers, new managers and mid-level managers in fiscal 2011.

● Measures Concerning the Elderly

We implement health education to encourage older employees to live in a healthy manner well into retirement. As part of these efforts, we offer exercise-related guidance in order to prevent occupational accidents caused by employees being in poor physical condition.

● Measures to Counter Lifestyle-Related Diseases

In fiscal 2011, efforts to provide instruction on improving lifestyle habits—based on the Ministry of Health, Labour and Welfare’s specified health checkups and specified health guidance measures—have yielded beneficial results for a significant number of employees.

In addition, we are raising employee awareness about the importance of good dietary habits with the help of nationally registered dietitians. In fiscal 2011, the Group significantly improved the meals it serves to employees through measures that included changing the menu at the Organic Chemistry Research Laboratory’s canteen.

● Doctor’s Visits at Overseas Bases

Industrial physicians visit the Group’s overseas bases in order to help preserve the health of Japanese employees and their families. This initiative was implemented in Spain and Germany in fiscal 2011.

● Participating in Blood Drives

UBE Group employees help give back to the local community by actively participating in blood drives. The Ube Chemical Factory received an award from the Ministry of Health, Labour and Welfare in July 2010 for its participation in area blood drives over the course of many years.



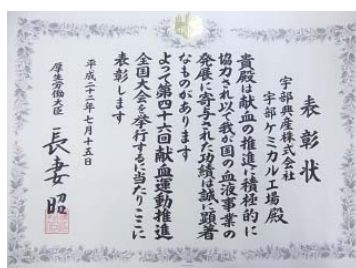
The Meet and Greet Campaign at the Sakai Factory



Exercise guidance at the Isa Cement Factory



The Organic Chemistry Research Laboratory’s canteen



An award certificate from the Ministry of Health, Labour and Welfare



Staff Message

Kyoko Nagao, Health Care & Support Center, Environment & Safety Dept.



Providing Support for Autonomous Efforts to Increase Health

The Health Administration Center aims to popularize “independent health preservation” and “safety awareness” as obligations under the keyword “autonomy.” To this end, we make available to workplaces and individuals information on such health risks as lifestyle-related diseases. This information is obtained primarily through medical checkups. Based on this information, workplaces can independently develop their own health promotion activities. Examples include workplaces that encourage employees to keep records of their physical condition, as well as workplaces that upgrade their canteens based on food-related surveys in order to improve employee eating habits. I believe that our efforts to provide medical checkups and health-related guidance have increased employee awareness of their own health. We will promote actions that reflect the opinions of all employees to support their autonomous efforts to maintain health.

Social Contribution

- Basic Policies**
- To conduct social contribution activities toward the creation of a sound and sustainable society

Support of Culture and Art

● The UBE Foundation

The UBE Foundation (Director: Hiroaki Tamura) was established in 1959 as the Watanabe Memorial Science Foundation at the bequest of the late Takaji Watanabe, the founding chairman of UBE. The Watanabe Memorial Science Foundation was renamed the UBE Foundation in 1998. In September 2010, the UBE Foundation was certified as an organization operating in the common interest by the Japanese Cabinet Office and registered as a foundation incorporated in the public interest in October 2010. In Japan, the Foundation aims to promote academic research activities, improve research facilities and assist academic researchers in their activities in order to contribute to the future development of academic culture.

In fiscal 2011, the Ube Foundation Grant was awarded to the following 9 recipients from a total number of 108 applicants. At an award ceremony held in June 2011, Professor Akira Nakai of Yamaguchi University's Graduate School of Medicine gave a keynote address on future protein-based medical treatments for aging and disease.

Ube Foundation Grant Recipients

| Name | Position held | Research theme |
|-------------------|---|--|
| Hiroshi Takeshima | Professor, Graduate School of Pharmaceutical Sciences, Kyoto University | TRIC channel and circulatory functions |
| Kazuhide Takano | Associate Professor, School of Engineering, Osaka University | Laser induced protein crystallization in gel |
| Hiroshi Endo | Assistant Professor Pro Tem, Faculty of Engineering, Tokyo University of Science | Develop supramolecular, lithium-ion batteries based on 3-way precision stratification |
| Yasuhiro Morisaki | Lecturer, Graduate School of Engineering, Kyoto University | Establish and apply practical synthesis methods for optically active diphosphate-crown |
| Yousuke Ooyama | Assistant Professor, Graduate School of Engineering, Hiroshima University | Develop bound, organic thin-membrane solar cells using innovative p- and n-type organic semiconductors |
| Koichiro Kuwahara | Lecturer, Kyoto University Hospital | Clarify role of transcriptional repressor NRSF, which is related to transcriptional and epigenome control in maintaining myocardial function |
| Kazuhiro Ueda | Assistant Professor, Yamaguchi University School of Medicine | Clarify role of bone marrow stem cells in remaining lung regeneration after pulmonary resection |
| Wataru Ohara | Associate Professor, Graduate School of Science and Engineering, Yamaguchi University | Develop cesium-free hydrogen/deuterium negative ion sources using plasma-enhanced catalytic ionization method |

Recipient of the Watanabe Memorial Special Grant

| Name | Position held | Research theme |
|---------------|---|---|
| Shigeo Masuda | Lecturer, Center for Molecular Medicine, Jichi Medical University | Develop transplant therapy methods using mesenchymal stem cells in hematopoietic stem cell transplants (using models based on primates) |

● Watanabe Memorial Culture Association

Established in 1936 as a private bequest of the late Sukesaku Watanabe, the founder of UBE, the Watanabe Memorial Culture Association (Director, Hiroaki Tamura) was founded to support a variety of cultural and art-related activities that include lectures and concerts. These efforts are undertaken with the aim of enhancing the well-being of Ube City residents and cultivating local culture.

In August 2010, UBE provided grants to the Ube City Folk Orchestra and the Ube Music Appreciation Society in order to contribute to the cultural development of the Ube area.

We donated ¥500,000 to both the Watanabe Memorial Book Collection within the Ube City Library and the Watanabe Memorial Culture Association Picture Book Collection in January 2011. The Watanabe Memorial Book Collection was donated to the Ube City Library in 2006 and amounts to more than 2,082 volumes, primarily in the field of art. Moreover, the Picture Book Collection for kindergartens and child-care centers contains more than 2,131 volumes. In March 2011, Ube donated sponsorship funds to the Ube Citizen Educational Lecture program.

● Charity Concert Held by the Japan Philharmonic Orchestra

Based on the philosophy of "living and prospering together," advocated by Sukesaku Watanabe, Ube Industries has been inviting the Japan Philharmonic Orchestra to perform in Ube City since 2008. With the purpose of contributing to the enrichment of local culture through music, we held the third UBE Group Charity Concert featuring the Japan Philharmonic Orchestra in October 2010.

The day before their performance, members of the Japan Philharmonic Orchestra participated in a "hands on concert" held by the Watanabe Memorial Culture Association for patients admitted to Ube Industries Central Hospital. They also held a music clinic for Ube City junior high school student brass

- 1 The Ube Foundation's research grant presentation ceremony
- 2 Director Tamura (right) presenting a monetary donation for the Memorial Book Collection to the mayor of Ube City



bands. A joint concert between the students and the Orchestra members was performed after the clinic.

The proceeds from the third UBE Group Charity Concert were donated to the local community and schools at a presentation ceremony held in December 2010. In addition, five municipal junior high schools in Ube City were each given a horn, while the Ube City Folk Orchestra and the Ube Music Appreciation Society received monetary donations.

Education and Social Contributions

● Chemistry Experiment Events for Children

Every year, UBE invites schoolchildren to attend chemistry experiment programs during their summer vacation. The purpose of such activities is to help children experience the fascinating world of chemistry by providing them with easy-to-understand explanations of advanced technologies.

In 2010, UBE's Organic Chemistry Research Laboratory conducted fun experiments in Ube City in a project that had the children recreate firefly light in test tubes in order to learn about catalysts and DNA. In Tokyo, the Organic Specialty Materials Research Laboratory and the Electronic Components & Materials Business Unit gave children the opportunity to enjoy creating their own original bookmarks using high-performance plastics (polyimide).

● Internships

As part of its CSR and employment activities, UBE undertakes yearly internships for graduate and technical college students. In August 2010, we accepted 14 interns from five technical colleges and universities located in the Chugoku, Shikoku and Kyushu regions. These interns had an opportunity to receive

practical training for five days at Ube Chemical Factory, Ube Cement Factory and the UBE Industries Power Generation Plant. In addition, UBE accepted three graduate students from an Ube area laboratory for internships that extended from two weeks to several months. These internships focused on specific research themes.

● Ube Industries Central Hospital

The Ube Industries Central Hospital actively accepts junior high students in cooperation with Ube City junior high schools to participate in its work experience program. In fiscal 2011, five students from three local junior high schools participated in the program. The students were given the opportunity to make contact with patients and perform tasks under the kind guidance of nurses and other staff members. Many students finish the program with the intention of doing a job in the future that helps people.

Initiatives in Singapore

The UBE Group began participating in volunteer activities sponsored by The Japanese Association, Singapore, in February 2011. These volunteer activities involve conducting musical exercise and foot massage sessions at the rehabilitation centers of area general hospitals. With one employee per week participating in these activities, all staff members have an opportunity to take part. As the first company to participate in this program, The Japanese Association, Singapore, greatly anticipates the Group's continued participation in these volunteer activities.

- 1 A joint concert performed following the music clinic held for students
- 2 Charity concert poster
- 3 A euphonium being presented to a junior high school
- 4 22nd Summer Holiday Junior Science Lesson (Ube)
- 5 Dream/Chemistry-21 Children's Summer Holiday Chemistry Experiment Show (Tokyo)
- 6 A junior high school student participating in Ube Industries Central Hospital's work experience program



Activities in Spain

The three UBE Group companies in Spain (Controlling Company: Ube Corporation Europe, S.A.) comply with the global Responsible Care (RC) initiative and actively expanded their communications with various stakeholders in 2010.

● Sponsorship of Facility Tours

Under the themes “chemical manufacturer workplaces” and “personnel required by the UBE Group,” Ube Corporation Europe (UCE) held factory tours in April and December 2010, with 80 local students participating in each tour. In June 2010, we invited the vice-governor of the province of Valencia, the head of the Ministry of Economy and Finance and the mayor of Castellón de la Plana to visit the Company.

● Exchanges with High Schools and Universities

In January 2011, UCE implemented a program for engineering and science students to observe the Group’s business operations. In addition, we provided development assistance for local high schools building prototype internal combustion vehicles to compete in the Shell Eco-Marathon (held in Germany in May 2011). UCE also provided support to local university students through on-the-job training programs sponsored by the Business-University Foundation and UCE.

As part of its efforts to contribute to the strategic development of the local economy, UCE’s CEO Ricardo Lopez participated in a panel discussion hosted by a local business school, under the theme “Talent and Competitiveness.”

● Support for Sports and Cultural Activities

We continued to support volleyball, soccer, basketball and other sports clubs in 2010. In addition, we sponsored the Tarrega International Guitar Competition for the second consecutive year and gave our support to an opera festival held in August 2010.

In May and October 2010, UCE sponsored the recycling campaign Reciplanet Energy and Recycling Fair for Children in cooperation with the Castellón provincial government, with approximately 6,000 people participating. UCE is promoting efforts to strengthen its relationship with the local community in cooperation with the city of Castellón de la Plana.



- 1 A workplace tour for local high school students
- 2 A workplace tour for local university students
- 3 A workplace tour for teachers
- 4 A visit by the vice-governor of Valencia
- 5 A prototype internal combustion vehicle that competed in the Shell Eco-Marathon
- 6 A local volleyball team
- 7 A local basketball team
- 8 Reciplanet Energy and Recycling Fair for Children

Activities in Thailand

The UBE Group's bases in Thailand (UBE Chemicals (Asia) Public Co., Ltd./Thai Synthetic Rubbers Co., Ltd.) are actively promoting communication with local residents through multiple activities, based on the idea that the UBE Group is an integral part of the community.

● Organization of the One-Day Summer Program

The One-Day Summer Program that we hold for local children—which has become an established custom—marked its 12th anniversary in fiscal 2011. Employees of the Thai UBE Group and local university students participate as instructors in the camp.

● Education Support

The Thai UBE Group held the 7th Thai Computational Chemistry Summer School with Kasetsart University in October 2010. In November 2010, the Group made donations to various scholarships intended for local youth.

● Better Quality of Living

Promoting local community-based activities known as “Better Quality of Living,” we promoted volunteer activities that help to revitalize the local community. The numerous projects we participate in and support include mobile public health clinics, regional cleanup projects, the Thai Government’s Antinarcotics Program, employee volunteer clubs and tree planting to preserve the local environment. In recognition of its employees, the Group held the Family Rally Tour two times in November 2010.

● Sports Promotion

Members of the local community and Thai UBE Group staff held a mini-marathon in November 2010. Moreover, soccer teams located in the area surrounding our factory participated in the ninth annual UBE-Plauk-Ket Cup.



- 1 One-Day Summer Program
- 2 Summer school
- 3 A scholarship donation
- 4 Cleanup activities
- 5 A mobile public health clinic
- 6 Family Rally Tour
- 7 Tree planting activities
- 8 Mini-marathon

03

Initiatives for Environment and Safety

At the UBE Group, conserving the environment and protecting health and safety come first in its business operations. This emphasis is necessary in order to provide products and services that make people's lives better and to achieve solid and sustainable growth.

UBE Group Environmental and Safety Principles

As members of society, corporations must be fully conscious of their responsibilities regarding contributions to society, environmental preservation and the maintenance of health and safety in carrying out their corporate activities. The UBE Group shall pursue the following vision in order to fulfill its leadership role and shall work to improve the safety and the quality of the environment among all of its Group companies through the publication of performance reports and the implementation of dialogues with society.

• Operational Safety

Ensuring operational safety shall be the priority in all areas and activities under UBE's commitment to respect human life.

• Process Safety

Maintenance of process safety shall be part of its basic mission as a manufacturer.

• Environmental Preservation

As a responsible corporate citizen, the UBE Group shall act positively to protect and improve both community and regional conditions and work for the preservation of the global environment.

• Product Safety

The UBE Group shall pursue its corporate responsibility in providing its customers and the public with safe and reliable products.

• Health Management

The UBE Group recognizes that maintaining and promoting the health of its employees is the basis of corporate and social vitality.

Revised in April 2010

Michio Takeshita

President and Group CEO, Representative Director

Michio Takeshita.

Environment and Safety Management

Environment and Safety Promotion System

The UBE Group has established the Group Environment and Safety Committee and the Group Product Safety Committee as the top decision-making organizational units for the promotion of "Environmental and Safety Principles." These committees—which consist of the members of the Group Strategic Management Committee and are chaired by the CEO—determine and review the Group-level policies and measures relating to the environment, occupational safety, health, and product safety.

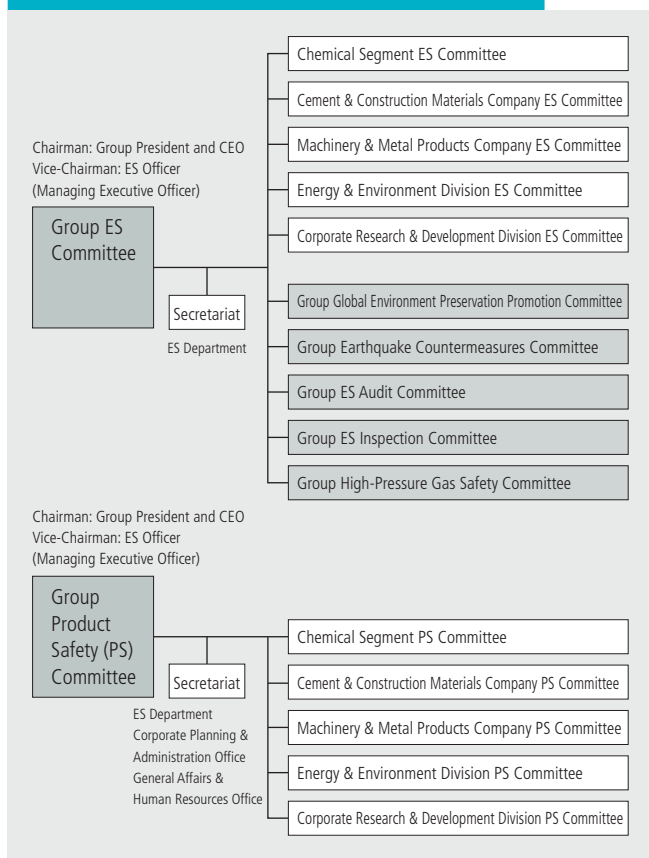
Both of these Group committees have established subcommittees for each segment. These subcommittees are involved in promoting measures for the environment, occupational safety, and product safety that reflect the business activities of each segment. Besides such segment subcommittees, the Group Environment and Safety Committee has individual subcommittees with responsibility for five specific areas, and they discuss and review concrete action plans and prepare various related reports.

Responsible Care Management System

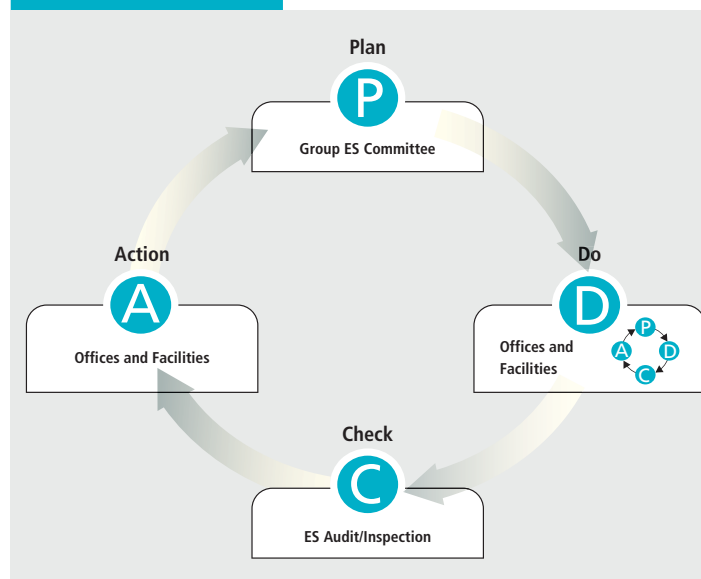
The UBE Group is expanding responsible care (RC)*1 not only in the Chemical Segment but also Cement & Construction Materials Company, Machinery & Metal Products Company and Energy & Environment Division. In addition, the Group is administering the Plan-Do-Check-Action (PDCA) management cycle to promote continuous improvements in the areas of the environment, safety and health.

Based on measures for the fiscal year established through deliberations and decisions made by the Group Environment and Safety Committee, each office and facility formulates action targets and schedules for its annual management plan, expanding them on a voluntary basis. The status of the plan's implementation is checked through an environment and safety audit, and each office and facility makes corrections as suggested. Audit and survey results are reported to the Environmental and Safety Department, the results of which are then reflected in the next fiscal year's measures.

Organization of Environment and Safety (ES) Committee



PDCA Management Cycle



Group Environment and Safety Committee



An environmental safety inspection

Glossary

*1. RC (responsible care): Under RC, corporations that manufacture and/or handle chemical substances work voluntarily to preserve "safety, health and the environment" throughout product life cycles, from the development of chemicals through their manufacture, distribution, use and final consumption to disposal. These commitments must be clearly reflected in the corporations' management policies. Activities are carried out in the areas of environmental protection (protect people's health and the natural environment worldwide); disaster prevention (work to prevent disasters at facilities and counter natural disasters); occupational safety and health (ensure the safety and health of workers); chemicals and product safety (clarify chemical products' properties and handling methods and thereby protect the safety and health of all handlers, including customers, while preserving the environment); and logistics safety (strive to prevent logistics-related accidents and disasters). Pursuant to these activities, communication in these areas is undertaken (announce activity details and results and promote social dialogue).

Outline of Environment and Safety Activities

The UBE Group's Environmental, Safety and Health Policies (Fiscal 2011—2013)

Maintaining the quality of responsible care (RC) activities

The UBE Group improves PDCA cycle-related activities each fiscal year to promote environmental, safety and health policies in line with its Responsible Care Code.

Fiscal 2011 evaluation: Targets and plants were achieved/mostly achieved in all categories.

| Responsible Care Code | Medium- to Long-Term Targets and Plans/Measures for Fiscal 2011 |
|--|---|
| Management Systems | <ol style="list-style-type: none"> 1. Deepen management systems <ul style="list-style-type: none"> • Streamline audits and inspections 2. Promote a correct understanding of regulations among on-site executives 3. Share environment and safety information |
| Environmental Preservation | <ol style="list-style-type: none"> 1. Promote measures to prevent global warming <ul style="list-style-type: none"> <Greenhouse gas reduction (fiscal 2011 target)> <ol style="list-style-type: none"> 1-1. The UBE Group's CO₂ emissions: Down 12% compared with the fiscal 1991 level <Greenhouse gas reduction (fiscal 2016 target)> <ol style="list-style-type: none"> 1-2. [Energy-oriented] CO₂ emissions: Down 15% compared with the fiscal 1991 level 1-3. [Energy-oriented + Non-energy-oriented (excluding waste-oriented)] CO₂ emissions: Down 20% compared with the fiscal 1991 level <Greenhouse gas reduction (initiatives to be taken until fiscal 2013)> <ol style="list-style-type: none"> 1-4. [Energy-oriented] CO₂ emissions: Down approximately 230,000 tons (Initial target: Reduction of approximately 180,000 tons) 1-5. Monitoring and control of CO₂ emissions at offices and facilities by the GHG^{*1} control system 1-6. Quantitative assessment of the UBE Group products' CO₂ reduction effects from the LCA^{*2} viewpoint 2. Reduce environmentally hazardous substances emissions <ol style="list-style-type: none"> 2-1. Voluntarily reduced emissions of 12 chemical substances (Fiscal 2013 target): Down 70% compared with the fiscal 2001 level 2-2. Reduce the amount of industrial waste that undergoes final processing externally (Fiscal 2013 target): Down 80% compared with the fiscal 2001 level 3. Promote green purchasing |
| Process Safety and Disaster Prevention | <ol style="list-style-type: none"> 1. Reduce facility accidents <ol style="list-style-type: none"> 1-1. Eliminate facility accidents caused by human errors 1-2. Enhance Groupwide earthquake preparedness and response |
| Occupational Safety and Health | <p><Health management></p> <ol style="list-style-type: none"> 1. Curb non-occupational injuries and illnesses 2. Respond to regular health check results <hr/> <p><Occupational safety></p> <ol style="list-style-type: none"> 1. Eliminate occupational accidents <ol style="list-style-type: none"> 1-1. Promote zero accidents by forming small groups for safety 1-2. Autonomous operations of Group companies and subcontractors 1-3. Eliminate occupational accidents caused by human errors |
| Distribution Safety | <ol style="list-style-type: none"> 1. Strengthen control of costs related to quality problems 2. Enhance safety control of chemical substances (meeting legal requirements both in Japan and overseas) <ol style="list-style-type: none"> 2-1. Promote processes for permanent registration in REACH^{*3} 2-2. Appropriately utilize GHS MSDS^{*4} and labels 3. Promote risk assessment and information disclosure of chemical substances |
| Chemicals and Product Safety | <ol style="list-style-type: none"> 1. Secure distribution safety <ol style="list-style-type: none"> 1-1. Continue revision of the "container yellow card" to comply with GHS^{*5} label requirements |
| Dialogue with Communities | <ol style="list-style-type: none"> 1. Promote dialogue with communities 2. Improve information disclosure and transparency |

Glossary

- *1. GHG: Greenhouse gas—CO₂, CH₄, N₂O, HFC, PFC and SF₆—specified in the Kyoto Protocol
- *2. LCA: Life cycle analysis is a method of quantitatively and objectively assessing environmental burden over a product life cycle and covers raw materials procurement, manufacturing, distribution, utilization and disposal
- *3. REACH: Regulation covering chemical substances enforced in the EU in June 2007 (REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals)
- *4. MSDS: Material Safety Data Sheet (documentation listing the product name, physicochemical properties, usages, and hazardous and toxicity information)
- *5. GHS: Globally Harmonized System of Classification and Labeling of Chemicals, used in preparing MSDS and container labels
- *6. BCP: Business Continuity Plan, an action plan for minimizing the suspension of business in the event of a disaster and recovering operations as early as possible to ensure business continuity
- *7. OSHMS: Occupational Safety & Health Management System

| Fiscal 2011 Activity Report | | Pages Included |
|--|--|----------------|
| <ul style="list-style-type: none"> 1-1. Head Office and divisions conducted environment and safety audits of 9 facilities and 12 Group companies (17 facilities and 6 Group companies in fiscal 2010) 1-2. Conducted quality/product safety audits of 11 facilities and Group companies 1-3. Conducted audits of industrial waste haulers and disposal contractors 2. Promoted understanding of regulations by disseminating external information and references 3. Revised and drafted new rules as needed in accordance with legal amendments | | 34 |
| <ul style="list-style-type: none"> 1-1. Achieved 21% reduction compared with the fiscal 1991 level 1-2. Reduced 15% compared with the fiscal 1991 level 1-3. Reduced 21% compared with the fiscal 1991 level 1-4. Achieved energy conservation by conversion of boiler fuel and reduction of system consumption 1-5. Introduced the GHG control system at business bases other than factories, such as the headquarters and branch offices 1-6. Utilizing LCA, evaluated CO₂ emission volumes over the life cycles of environment-friendly products as well as the CO₂ emission reduction effects of such products 2-1. Reduced 76% compared with the fiscal 2001 level 2-2. Reduced 66% compared with the fiscal 2001 level 3. The UBE Group's green purchasing rate: 66% (up 4% from fiscal 2010) | | 39, 40 |
| <ul style="list-style-type: none"> 1-1. Summarized countermeasures against risks caused by human factors 1-2. Carried out BCP*⁶ earthquake response drills in Tokyo, Chiba and Ube | | 47, 48 |
| <ul style="list-style-type: none"> 1. Undertook activities related to measures for mental health 2. Undertook activities related to measures for lifestyle-related diseases, the elderly, overwork and a new strain of influenza by making use of health check results <ul style="list-style-type: none"> • Implementing countermeasures against a new strain of influenza | | 28 |
| <ul style="list-style-type: none"> 1-1. Formed small groups at each factory for safety and took initiatives to avoid lost-work days due to accidents 1-2. Acquired certification for Group companies and subcontractors through the application of OSHMS*⁷ 1-3. Improved dangerous areas in factories through risk assessment | | 47, 48 |
| <ul style="list-style-type: none"> 1. Tallied and imposed controls on Groupwide costs related to quality-related problems <ul style="list-style-type: none"> 2-1. Completed the registration of substances that had to be registered by 2010 (11 substances) 2-2. Promoted Groupwide response to GHS in connection with the introduction this system in Japan and overseas 3. Promoted the development of systems for chemical substance risk assessment and information disclosure | | 23, 43 |
| <ul style="list-style-type: none"> 1. Continual implementation of measures to prevent distribution-related complaints and improve distribution quality <ul style="list-style-type: none"> 1-1. Revised GHS labeling based on the Container Yellow Card labeling system | | 43 |
| <ul style="list-style-type: none"> 1-1. Held the 8th RC Regional Dialogue Conference in the Ube District 1-2. Held the 8th Community RC Dialogue Meeting at the Chiba District 1-3. Delivered a lecture at the PRTR Citizen Seminar in Ube sponsored by NPO Toxic Watch Network 2. Received third-party verification of CSR Report 2010 related to RC | | 24 |

Environmental Accounting

Since fiscal 2000, the UBE Group has introduced environmental accounting as a tool for quantitatively understanding and evaluating the costs and effects of environmental preservation in Group business activities while promoting more efficient sustained environmental preservation.

The results for fiscal 2011 are as shown in the following tables.

● Environmental Preservation Costs

Capital investment amounted to ¥2,370 million. This was primarily attributable to the conversion of the boiler fuel at the Chiba Petrochemical Factory as well as the installation of denitration/desulfuration equipment and trial equipment that uses palm kernel shells (PKS) for fuel at the Group's in-house power generator plant.

Costs increased ¥160 million to ¥11,330 million compared with fiscal 2010 due to rises in raw material and personnel costs.

● Economic Effect

The income effect amounted to ¥990 million. This figure includes proceeds from the sale of marketable waste. The savings effect was ¥6,410 million due to promoting the reuse of raw materials and energy conservation.



Unloading PKS

Environmental Preservation Cost

(Unit: ¥100 million)

| Category | Main Activity | Capital Investment | | | Cost | | | |
|---|---------------------------------|---|--------|------------|--------|--------|------------|-------|
| | | FY2010 | FY2011 | Difference | FY2010 | FY2011 | Difference | |
| Cost by business area | Pollution prevention | Costs of investing in and maintaining air and water pollution prevention facility | 14.3 | 9.8 | (4.5) | 52.6 | 53.4 | 0.8 |
| | Global environment preservation | Costs of investing in and maintaining energy-saving facility | 2.8 | 9.2 | 6.4 | 4.6 | 5.5 | 0.9 |
| | Resource recycling | Costs of recycling and reducing industrial waste | 7.8 | 4.4 | (3.4) | 32.9 | 34.5 | 1.6 |
| Upstream/downstream costs | | Costs of container/packaging recycling, green purchasing | 0.0 | 0.0 | 0.0 | 7.2 | 4.9 | (2.3) |
| Costs of management activities | | Costs of acquiring, running and maintaining environmental management systems | 0.1 | 0.0 | (0.1) | 5.1 | 5.1 | 0.0 |
| Research and development costs | | R&D costs of environment-friendly products and technologies | 0.3 | 0.1 | (0.2) | 4.3 | 4.7 | 0.4 |
| Costs of social activities | | Costs of greening and beautifying offices/facilities and their surroundings | 0.0 | 0.2 | 0.2 | 2.2 | 2.4 | 0.2 |
| Costs of cleaning up environment damage | | Payment of environment-related levy | 0.0 | 0.0 | 0.0 | 2.8 | 2.8 | 0.0 |
| Total | | | 25.3 | 23.7 | (1.6) | 111.7 | 113.3 | 1.6 |

Economic Effect

(Unit: ¥100 million)

| Category | Income effect | FY2010 | FY2011 | Difference |
|---------------|---|--------|--------|------------|
| Income Effect | Proceeds from sales of marketable waste products | 7.1 | 9.9 | 2.8 |
| Saving Effect | Savings achieved through resource recycling and energy conservation | 66.4 | 64.1 | (2.3) |

UBE Group Environmental Accounting Method

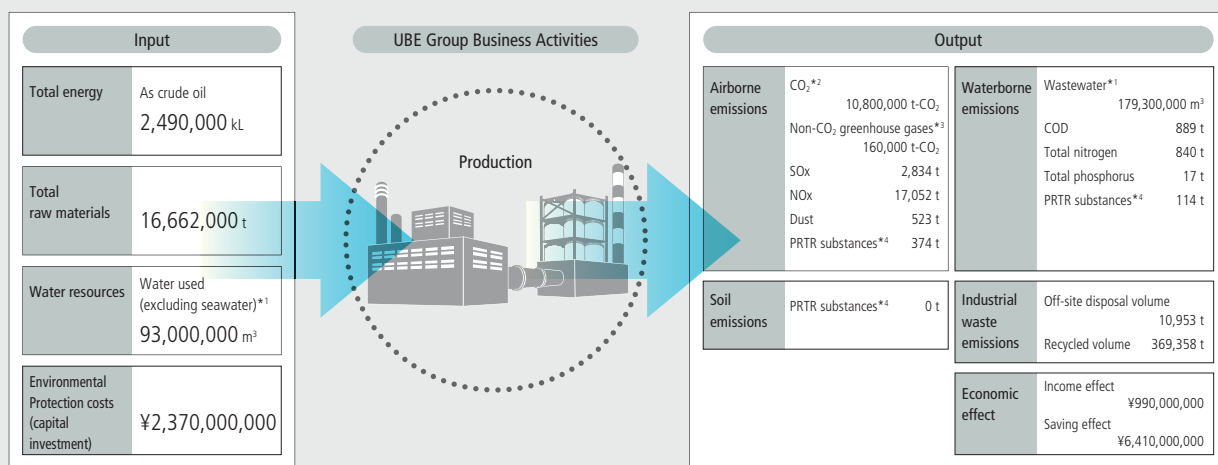
- Companies covered: UBE Group companies (Except for UBE-MC Hydrogen Peroxide, Ltd., only consolidated subsidiaries from "Companies covered" on page 11).
- Calculations are based on Environmental Accounting Guidelines (Ministry of the Environment FY 2005 version).
- The economic effect is the effect obtained in fiscal 2011 as a result of environmental protection activities. This is limited to what can be calculated rationally and excludes hypothetical calculations such as the avoidance of the cost of cleaning up environmental damage.
- Internal transactions within the UBE Group are set off and eliminated.

Environmental Performance

The UBE Group recognizes that environment-oriented business practices are vital to its ongoing growth. We will continue to promote measures to prevent global warming, reduce emissions of toxic chemical substances and industrial waste, and use waste and resources effectively in order to continuously foster business activities that contribute to the formation of a recycling-based society.

See "Companies covered" on page 11 for details on the scope of UBE Group performance data.
 *1. The difference between the "water used" and "wastewater" is because wastewater includes seawater.
 *2. Indicates total CO₂ emissions (excluding raw combustible material waste)
 *3. CH₄, N₂O, HFC, PFC, and SF₆
 *4. PRTR figures are based on 462 substances designated by the Japan Chemical Industry Association (JCIA) (See page 42 for reference).

Overview of UBE Group Environmental Impact in Fiscal 2011



Fiscal 2010 and 2011 Environmental Data by Factory

(Unit: tons/year)

| | SOx Emissions | | NOx Emissions | | Dust Emissions | | COD Emissions | | Total Nitrogen Emissions | | Total Phosphorus Emissions | | Industrial Waste Off-Site Disposal Volume | |
|---------------------------------|---------------|-------|---------------|-------|----------------|------|---------------|------|--------------------------|------|----------------------------|------|---|--------|
| | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 |
| Chiba Petrochemical Factory | 2 | 5 | 3.1 | 36 | 2.2 | 0.3 | 4.8 | 6.6 | 2.3 | 3 | 0.1 | 0 | 21 | 10 |
| Ube Chemical Factory | 1,420 | 1,695 | 3,800 | 3,615 | 135 | 127 | 372 | 487 | 386 | 497 | 5.5 | 8.0 | 189 | 333 |
| Sakai Factory | 0 | 0 | 142 | 165 | 28.7 | 30.4 | 135 | 173 | 205 | 269 | 3.7 | 4.3 | 121 | 191 |
| Ube Cement Factory | 47 | 46 | 1,371 | 1,638 | 52 | 66 | 10.7 | 8.5 | — | — | — | — | 0 | 0 |
| Isa Cement Factory | 308 | 358 | 8,244 | 6,971 | 146 | 176 | 0 | 0 | — | — | — | — | 0 | 0 |
| Kanda Cement Factory | 6 | 5 | 2,477 | 2,630 | 57 | 47 | 1.7 | 1.6 | 0.7 | 0.8 | 0.1 | 0 | 1 | 15 |
| Okinoyama Coal Center | — | — | — | — | — | — | 0 | — | — | — | — | — | 25 | 23 |
| Ube Film, Ltd. | — | — | — | — | — | — | — | — | — | — | — | — | 1 | 3 |
| Ems-Ube, Ltd. | 0 | 0 | 5.2 | 5.2 | 0 | 0 | 6.1 | 5.1 | 1.5 | 1.6 | 0 | 0 | 0 | 0 |
| Ube Ammonia Industry, Ltd. | 540 | 587 | 413 | 394 | 3.4 | 6.0 | 188 | 203 | 65.8 | 64.5 | 3.5 | 4.2 | 30 | 168 |
| UBE-MC Hydrogen Peroxide, Ltd. | — | — | — | — | — | — | 0.2 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ube-Nitto Kasei Co., Ltd. | 0.9 | 2.8 | 1.3 | 3.9 | 0.1 | 0.3 | 1.0 | 1.1 | 0 | 0 | 0 | 0 | 54 | 24 |
| Meiwa Plastic Industries, Ltd. | — | — | — | — | — | — | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 13 | 11 |
| Ube Material Industries, Ltd. | 86 | 124 | 1,167 | 1,537 | 35 | 49 | — | — | — | — | — | — | 4,128 | 6,866 |
| Ube Board Co., Ltd. | 0.6 | 0.5 | 7.5 | 7.4 | 3 | 3 | 0.2 | 0.2 | 0.2 | 0.1 | 0 | 0 | 733 | 250 |
| Ube Machinery Corporation, Ltd. | 0 | 0 | — | — | — | — | 1.1 | 0.9 | 1.6 | 1.4 | 0.2 | 0.2 | 104 | 102 |
| Fukushima, Ltd. | — | BB | — | BB | — | BB | — | BB | — | BB | — | BB | — | 35 |
| Ube Steel Co., Ltd. | 12.5 | 11.3 | 46 | 43 | 18.1 | 16.5 | 0.6 | 0.7 | 0 | 0 | 0 | 0 | 4,688 | 2,466 |
| Thailand | 3 | 10 | 29 | 101 | 5 | 21 | 60 | 63 | 29 | 30 | 0 | 2 | 876 | 1,255 |
| Spain | 244 | 196 | 314 | 565 | 38 | 85 | 118 | 186 | 108 | 157 | 2.8 | 2.4 | 8,071 | 35,954 |
| Ube Aluminum Wheels, Ltd. | 0.7 | 0.3 | 12.9 | 6.9 | 0.9 | 0.8 | 0.3 | 0.3 | 0.2 | 0.3 | 0 | 0 | 172 | 74 |

* BB: Data that has been omitted since it cannot be determined or quantified.

Measures to Prevent Global Warming

New Medium-Term Management Plan ("Stage Up 2012—New Challenges")

Targets for Reducing Greenhouse Gases

1. CO₂ emissions from energy use: Reduce 15% compared with fiscal 1991 levels by fiscal 2016
2. Total CO₂ emissions from energy use and non-energy-use (excluding emissions from waste): Reduce 20% compared with fiscal 1991 levels by fiscal 2016

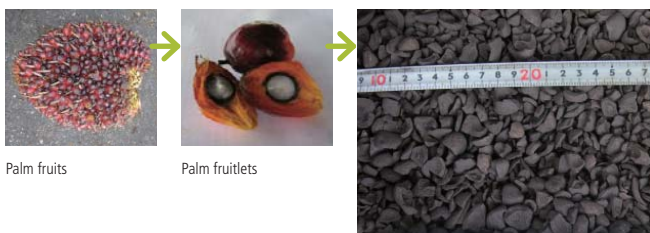
Initiatives until Fiscal 2013

- Reduce CO₂ emissions from energy use by approximately 230,000 tons per year by engaging in such efforts as introducing energy-saving equipment and expanding the use of waste materials (initial target: approximately 180,000 ton reduction).
- Oversee and administer CO₂ emission levels using a GHG*1 management system that enables precise and swift monitoring of CO₂ emission levels for each place of business.
- Applying the concept of life cycle analysis (LCA) to its main products, the UBE Group undertakes a qualitative assessment of the status of CO₂ emissions and reduction at all stages, from raw material procurement, through manufacture, distribution and consumption, and finally to recycling and disposal.

Promoting the Use of Alternative Fuels at On-Site Power Generating Plants

With the goal of reducing CO₂ emissions from its on-site power generating plants (pulverized coal-based thermal power plants), the UBE Group is promoting the development of technologies that enable the use of palm kernel shell (PKS) as an alternative fuel. Through the use of PKS, the Group aims to reduce annual CO₂ emissions from these plants by 190,000 tons. Boasting a relatively high calorific value among biomass fuels, at approximately 4,000 kcal/kg, PKS shows stable characteristics that allow for handling similar to that of coal. However, due to its extreme hardness and the resultant difficulty in pulverizing it, it was previously considered that using PKS for pulverized coal-based thermal power plants would be impractical.

We have found, however, that the pulverization of PKS is possible if it is first pre-processed to make it more crushable and then run through crushing machines exclusively designed for this purpose. Furthermore, we have conducted verification tests that support the practical use of PKS as an alternative fuel for our on-site power generating plants. The UBE Group plans to promote the adoption of this technology by power companies as well as pulverized coal-based



Palm fruits

Palm fruitlets

PKS

The Previous Medium-Term Plan "Stage Up 2009"

1. CO₂ emissions reduction target to be achieved by the introduction of energy-saving measures, fuel conversion and waste utilization policies in fiscal 2011 set at 12% (compared with the fiscal 1991 level)
2. Reduction of emissions of greenhouse gases other than CO₂ of 100,000 tons (CO₂ equivalent) annually by fiscal 2011
3. The above two targets are to be achieved in fiscal 2010, which is earlier than scheduled.

thermal power plants operated by other companies, thereby contributing to the reduction of CO₂ emissions in society as a whole.

Measures to Reduce Greenhouse Gases

Achieved Targets Set in the Previous Medium-Term Management Plan

In fiscal 2011, the UBE Group's CO₂ emissions totaled 10.8 million tons, down 21% compared with the fiscal 1991 level, achieving target No. 1 of its previous medium-term management plan. The Group accomplished target No. 2 in fiscal 2009, ahead of schedule.

CO₂ Emissions and CO₂ Emission Intensity Index

The Group's CO₂ emissions in fiscal 2011 increased 6% year on year. On the other hand, the CO₂ emission intensity index showed a 23% improvement from the fiscal 1991 level.

Energy Consumption and Energy Consumption Intensity Index

Energy consumption in fiscal 2011 rose 9% year on year. The energy consumption intensity index improved 1% compared with the fiscal 2010 level.

Efforts in Factories

UBE Group factories are consistently strengthening energy-saving measures to reduce their energy consumption. During fiscal 2011, the Ube Cement Factory promoted the use of waste heat generated at the clinker cooler, while the Chiba Petrochemical Factory accelerated the conversion of boiler fuels. Thanks to these efforts, the CO₂ emissions of UBE Group factories decreased approximately 90,000 tons year on year. Also, the Ube Industries Central Hospital, which has been designated as a Class II energy management business site under the Law Concerning the Rational Use of Energy (Energy Saving Law), promoted the replacement of its existing facilities with new energy-saving facilities while working to reduce energy losses within the site. Through these and other energy-saving efforts throughout the site, the hospital strove to raise employee awareness of energy savings. As a result, in fiscal 2010 the hospital

managed to reduce its energy consumption intensity index by 16% from the fiscal 2006 level. In recognition of this achievement, the hospital received the

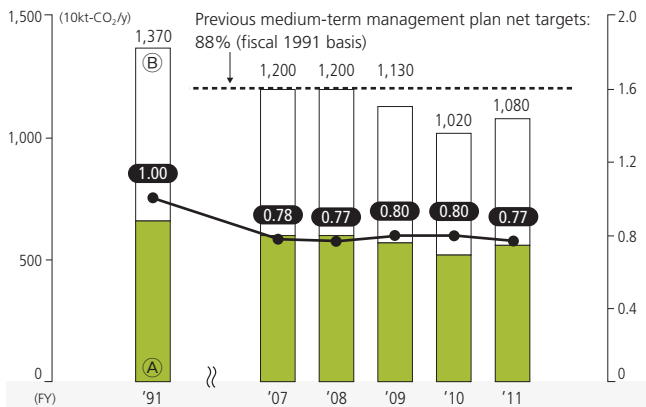


2010 Chugoku Region Energy-Saving Monthly Awards ceremony

Glossary

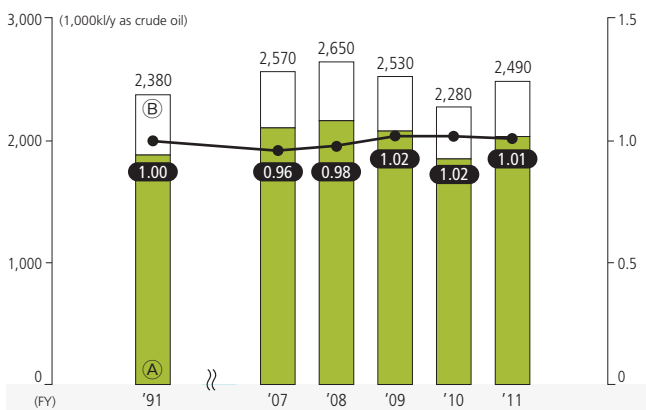
*1. GHG (Greenhouse Gas): CO₂, CH₄, N₂O, HFC, PFC and SF₆ are six greenhouse gases specified in the Kyoto Protocol.
 *2. Specified Consigner: Shipper who transports 30 million ton-kilos or more each year
 *3. Energy consumption intensity index = Energy consumption / Net sales, total transport volume or other value closely related to energy consumption
 *4. Modal shift: A shift from truck transport to rail and domestic shipping-based transport that uses less energy per amount transported.

CO₂ Emissions and CO₂ Emission Intensity Index



(A) Energy-based CO₂ emissions (B) Non-energy-based CO₂ emissions (excluding emissions from waste)
 ● CO₂ emission intensity index (fiscal 1991 basis)

Energy Consumption and Energy Consumption Intensity Index



(A) UBE (B) Group companies ● Energy intensity index (fiscal 1991 basis)

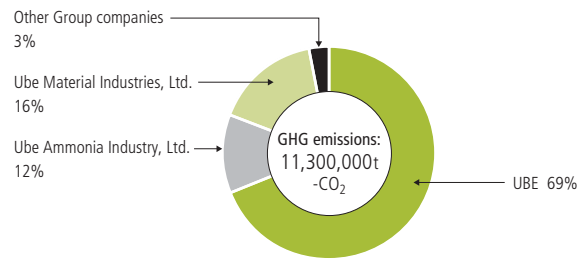
The volume of energy consumption and CO₂ emissions are calculated based on the Act on the Rational Use of Energy and the Act on Promotion Measures to Cope with Global Warming.

2010 Director-General's Prize from the Chugoku Bureau of Economy, Trade and Industry as a business site conducting excellent energy management at the 2010 Chugoku Region Energy-Saving Monthly Awards ceremony.

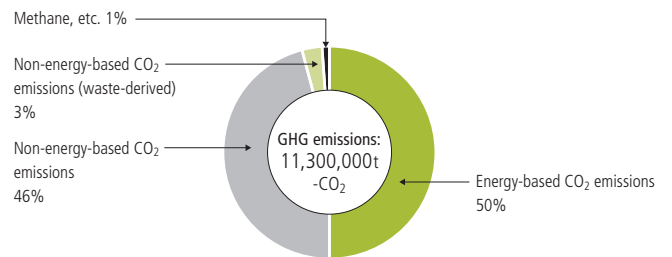
● Efforts in Logistics

In fiscal 2011, all three Specified Consigners*² within the UBE Group announced in their reports prepared in line with the Energy Saving Law that they made improvements in their energy consumption intensity indexes*³ from the levels in fiscal 2007, which is treated as the reference year. Also, the UBE Group continued to promote the Logistics Re-engineering Project, which seeks to improve the efficiency of sales and logistics. Through this project, the Group is working to improve overall load ratio in cooperation with the recipients of our shipments by: (1) increasing shipment lot sizes; (2) promoting joint transport operations; and (3) expanding mixed loading. At the same time, we asked the shipping companies we use to reduce the travelling speed of their container ships to save energy. Looking ahead, the Group will broaden the scope of joint transport operations and further promote a modal shift*⁴ while increasing shipping lot sizes by using larger ships to reduce the number of shipments. Through these activities, we aim to achieve reductions in both environmental impact and costs.

GHG Emissions for UBE Group by Company (Fiscal 2011 Results)



GHG Emissions for UBE Group by Type of Gas (Fiscal 2011 Results)



Fiscal 2011 GHG emissions: Virtually all of the UBE Group's GHG emissions, when looked at by company, come from UBE, Ube Ammonia Industry, Ltd. and Ube Material Industries, Ltd. By type of gas, energy- and non-energy-based CO₂ emissions comprised more than 90% of all CO₂ emissions.



Guest Message

Yoshihito Iwama, Director, Environmental Policy Bureau, Japan Business Federation



Toward Realizing a Low-Carbon Society through Specific Initiatives in Japan and Overseas

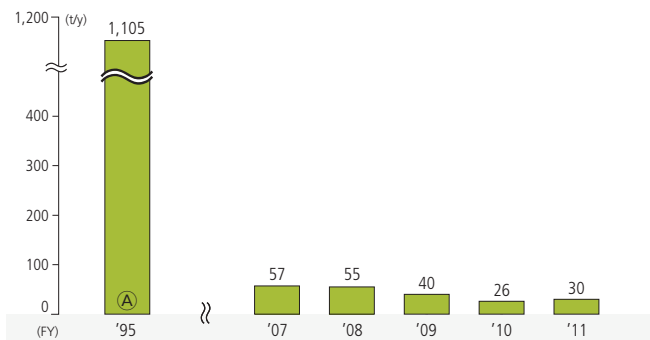
The Japan Business Federation, also known as Nippon Keidanren, promoted its voluntary action plan for global warming prevention prior to the launch of the Kyoto Protocol and has made steady progress in this area. For example, the CO₂ emissions of all the participating manufacturers and energy businesses have been reduced to 16.8% below the fiscal 1991 level. Meanwhile, the Japan Business Federation is now accelerating preparations for the implementation of "Nippon Keidanren's Commitment to a Low Carbon Society," which is based on its previous voluntary action plan, for the post-Kyoto Protocol period from 2013 onward. This commitment involves such specific initiatives as: (1) the reduction of CO₂ emissions attributable to product use by incorporating environmental considerations in products and (2) the provision of technological and technical assistance to promote global warming prevention measures in emerging and other nations. While we work to contribute to nationwide recovery efforts in the aftermath of the Great East Japan Earthquake, we will advance these initiatives to allow Japanese industries to expand businesses relating to global warming prevention.

Management of Chemical Substances

Initiatives to Reduce the Emission of Harmful Air Pollutants

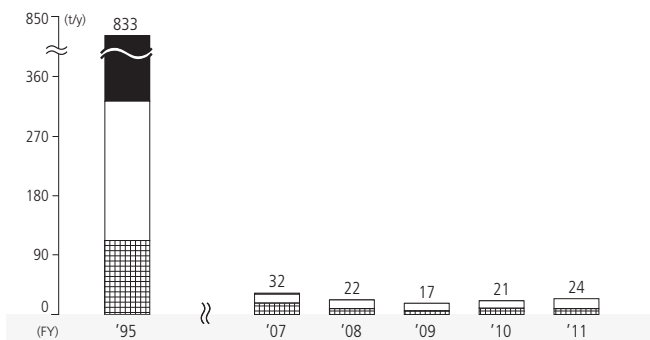
The chemical industry designated 12 harmful air pollutants among a number of harmful air pollutants as subject to voluntary management and has implemented measures to reduce emissions of these pollutants. Among the 12 substances listed, the UBE Group uses benzene, butadiene, acrylonitrile, solvent-use benzene, 1,2-dichloroethane, chloroform and dichloromethane in its synthetic raw materials. Regarding benzene and butadiene, which are suspected to be particularly harmful, the Group promoted a drastic reduction of their emissions and achieved a decrease of 97% and 98%, respectively, compared with fiscal 1996. In addition, the Group attained a 97% reduction in total emissions for six of these substances.

Total Emissions Volume of Six Harmful Air Pollutants



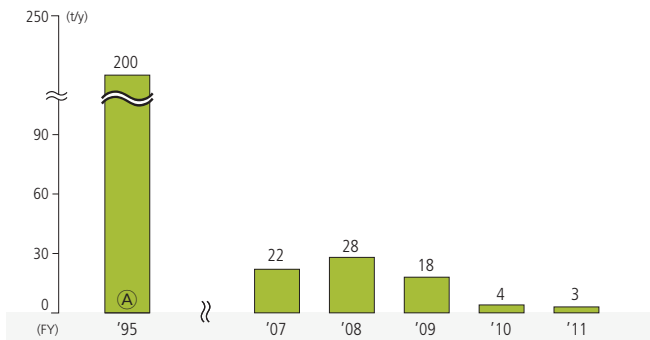
(A) Group Companies

Benzene Emissions Volume



Ube Chemical Factory Sakai Factory Chiba Petrochemical Factory

1,3-Butadiene Emissions Volume



(A) Chiba Petrochemical Factory

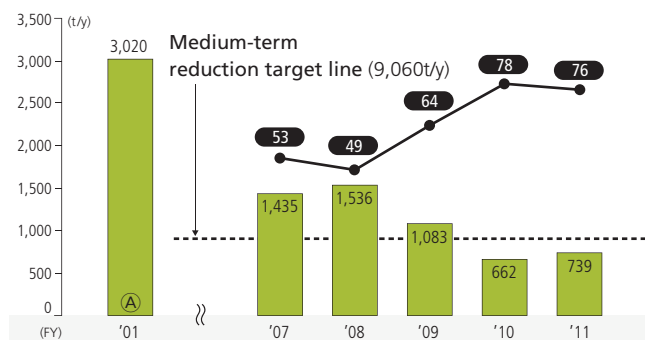
Medium-Term Emission Reduction Plan (Fiscal 2011–Fiscal 2013)

Reduce emissions of 12 voluntarily selected chemical substances by 70% compared with fiscal 2001 by fiscal 2013

Voluntary Medium-Term Plan for Reducing Chemical Substance Emissions

The UBE Group reduced total emissions of 12 voluntarily selected chemical substances by 76%, compared with the fiscal 2001 level. Targeted chemical substances are: ammonia, caprolactam, xylene, vinyl acetate, cyclohexane, dichloromethane, toluene, 1,3-butadiene, butyl alcohol, n-hexane, benzene, methyl alcohol.

Emissions and Reduction Rate of 12 Voluntarily Selected Toxic Substances



(A) Total emissions ● Reduction rate (%)



Cyclohexane recovery facility located within the Ube Chemical Factory premises



Deodorizing equipment at the Chiba Petrochemical Factory

Pollutant Release and Transfer Register (PRTR)

Due to a revision to the PRTR^{*1} Law, the number of designated substances increased from 354 to 462 starting in fiscal 2011. Moreover, the number of substances designated by the Japan Chemical Industry Association (JCIA) decreased from 480 to 433 following a survey conducted in fiscal 2011, and the Group commenced new surveys related to VOCs^{*2} during the year under review.

The Group is working to reduce emissions of each designated substance by installing exhaust gas treatment systems in factories, maintaining closed handling areas and making improvements in production processes that include changing solvents.

Among the substances designated under the PRTR Law, the UBE Group handles 59 and UBE handles 50, increases of 18% and 28%, respectively, compared with fiscal 2010.

● PCB (Polychlorinated Biphenyl)

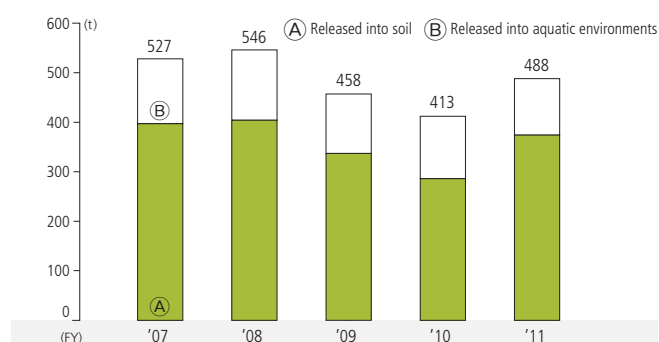
Regardless of whether they are currently in use or no longer in use, the UBE Group appropriately stores and makes use of PCB-containing transformers, condensers and fluorescent lighting stabilizers in its factories in accordance with the Law Concerning Special Measures against PCB Waste. The Group

plans to store and treat PCB-containing items in an appropriate and safe manner up until July 2018. As part of this plan, Japan Environmental Safety Corporation (JESCO) is scheduled to treat these PCB-containing items in each region where the Group maintains facilities. Treatment of some PCB-containing items has already commenced.

● Countermeasures for Soil and Ground Water Pollution

The UBE Group conducts surveys and initiates measures in accordance with the Soil Contamination Countermeasures Law and ordinances established by local governments.

Emission Volume of PRTR Substances



UBE Group PRTR Substances in Fiscal 2011

| | Total Handling Volume (Volume used/produced) | Emissions Volume | | | | Increase/Decrease Rate Compared with Fiscal 2010 (Total emissions) | Transfer Volume |
|--------------------------------|---|------------------|--------------|------|-------|--|-----------------|
| | | Atmosphere | Public Water | Soil | Total | | |
| PRTR Law designated substances | 475,888 | 373.8 | 113.8 | 0.0 | 487.6 | 18% | 1,754.5 |
| JCIA designated substances | 2,079,320 | 813.8 | 178.6 | 0.0 | 992.4 | 26% | 2,986.6 |

Transfer volume: Volume externally treated as waste

Individual Emission Volumes in Fiscal 2011 (Limited to the Top 12 Substances Subject to the PRTR Law and Dioxins)

| Ordinance Designation Number | Chemical Substance | CAS No. | Handling Volume | Emissions Volume | | | | Increase/Decrease rate Compared with Fiscal 2010 (Total emissions) | Transfer Volume |
|------------------------------|---------------------------------------|----------|-----------------|------------------|--------------|------|-------|--|-----------------|
| | | | | Atmosphere | Public Water | Soil | Total | | |
| 300 | Toluene | 108-88-3 | 1,400 | 95.8 | 17.5 | 0.0 | 113.3 | (21%) | 378.4 |
| 76 | ε-caprolactam | 105-60-2 | 239,911 | 0.0 | 82.0 | 0.0 | 82.0 | (10%) | 436.6 |
| 80 | Xylene | * | 220 | 74.8 | 0.0 | 0.0 | 74.8 | 34% | 32.9 |
| 213 | N,N-dimethylformamide | 127-19-5 | 517 | 57.5 | 0.0 | 0.0 | 57.5 | — | 147.9 |
| 53 | Ethylbenzene | 100-41-4 | 57 | 38.7 | 0.0 | 0.0 | 38.7 | 18% | 19.2 |
| 134 | Vinyl acetate | 108-05-4 | 6,211 | 29.8 | 0.0 | 0.0 | 29.8 | 7% | 0.0 |
| 400 | Benzene | 71-43-2 | 107,572 | 23.8 | 0.6 | 0.0 | 24.4 | 15% | 0.0 |
| 392 | n-hexane | 110-54-3 | 326 | 23.7 | 0.0 | 0.0 | 23.7 | — | 12.8 |
| 297 | 1, 3, 5 trimethylbenzene | 108-67-8 | 7 | 7.1 | 0.0 | 0.0 | 7.1 | (18%) | 0.0 |
| 389 | Hexadecyl-trimethyl-ammonium chloride | 112-02-7 | 7 | 0.0 | 6.9 | 0.0 | 6.9 | — | 0.0 |
| 104 | Chlorodifluoromethane | 75-45-6 | 7 | 6.7 | 0.0 | 0.0 | 6.7 | (33%) | 0.4 |
| 240 | Styrene | 100-42-5 | 141 | 6.2 | 0.0 | 0.0 | 6.2 | 44% | 0.4 |
| 243 | Dioxins | * | — | 116 | 8.0 | 0.0 | 124 | (40%) | 0.2 |

Notes: 1. CAS No.: Chemical Abstract Service registry number. 2. *: Contains various compounds 3. Unit for dioxins: mg-TEQ/year

Glossary

*1. PRTR (Pollutant Release and Transfer Register): Involves conducting voluntary surveys to assess the volume of chemical substances that are emitted into the environment (atmosphere, water, soil) and transferred outside in the form of waste from company facilities during business activities and reporting survey findings to national and other governments while undertaking full public disclosure. The aim of PRTR is to take steps to control and reduce environmental burdens through the appropriate use and management of chemical substances.

*2. VOCs (Volatile Organic Compounds): Collective term referring to organic chemical compounds that vaporize easily and enter the atmosphere. VOCs are arguably one of the sources of suspended particle matter and photochemical oxidants.

Working to Advance Product Safety and Quality Assurance

● Material Safety Data Sheet (MSDS)

To ensure the safe use of our chemical products, we have prepared MSDSs*1 for all of our products, and we disclose them on our website. In addition, employees can access MSDS recorded in our product MSDS database. This database provides employees with information on product hazards and toxicity, safe handling methods, relevant laws and regulations, and storage and disposal procedures. We update product labels to correspond with MSDSs based on the EU's REACH Regulation,*2 CLP*3 and other relevant regulations of individual countries.

● Product Labels

To each product we attach container labels listing their hazard information and precautionary measures to be taken during the handling of such products. Moreover, we are promoting the full introduction of GHS*4 labels and the Container Yellow Card labeling system.*5

● Safety of Transportation

Based on yearly plans established by the Group Product Safety Committee, we undertake measures to prevent transportation accidents—regularly checking whether a Yellow Card*6 is carried by our truck drivers and conducting disaster drills—while improving the quality of our transportation operations.

● Response to Green Procurement by Customers

Consistent efforts are made to reduce the use of environmentally harmful materials in all products and incorporate design aspects that make for easy recycling, particularly in the automotive, electronic and electrical equipment manufacturing industries. As a supplier of both raw and processed materials, UBE takes a number of positive approaches to help its customers realize green procurement.*7 Regarding the appropriate management of procured raw materials, UBE has established its own unique standards to promote the management of the substances contained in raw materials, parts procured and products.

● Product Safety Activities

In addition to following individual countries' laws and regulations as a matter of course, we actively undertake measures to maintain compliance and prevent problems related to product quality and liability. To this end, we have established an ISO quality management system and conduct product quality and safety surveys. Such efforts are centered on the Group Product Safety Committee.



Staff Message

Akira Ooka, Manager, Environment & Safety Dept.



Fiscal 2012 Is an Important Year

As fiscal 2012 is the International Year of Chemistry (IYC2011), various events are being planned to celebrate technologies and achievements in this area of science. This also a year in which there will be major revisions made to chemical control regulations both in Japan and overseas. It is our duty to proactively and appropriately provide not only necessary information on chemical applications, but also information on safe usage and handling. We will move forward with our efforts to implement GHS while working to verify and steadily address the laws and regulations of various countries.

| Page 1 of 7 Revised: 16Jan2011 MSDS (Methyl ethyl ketone) | | Page 2 of 7 Revised: 16Jan2011 MSDS (Methyl ethyl ketone) | |
|--|--|--|--|
| SAFETY DATA SHEET | | | |
| <p>1.1 Product identifier MEO (Methyl ethyl ketone) Methyl ethyl ketone EU registration number: 01-2110036477-28-0002</p> | | | |
| <p>1.2 Hazard identification GHS hazard: Flammable liquid (H228) GHS hazard: Irritant (H315) GHS hazard: Harmful to the environment (H410)</p> | | | |
| <p>1.3 Details of the supplier of the safety data sheet UBE Chemical Europe S.A. Fine Chemicals Business Unit Chemist Rd, 100 Road 28253 Madrid, Spain Tel: +34 91 8737289 Fax: +34 91 8737289 E-mail: UBE.Chemicals@ube.com</p> | | | |
| <p>1.4 Emergency number 704 1000 87 (Japan) +64 61 628 100 8322 (New Zealand)</p> | | | |
| <p>2.1 Classification of the substance/mixture Classification according to GHS: H228, H315, H319, H332, H333, H335 Classification according to CLP: H228, H315, H319, H332, H333, H335</p> | | | |
| <p>2.2 Label elements Signal word: Danger Hazard statements: H228: Flammable liquid + H315: May cause an allergic skin reaction + H319: Causes serious eye irritation + H332: Harmful to the environment Precautionary statements: P201: Avoid breathing vapors/mist/aerosols + P202: Wear protective gloves/eye protection/face protection + P211: Call a POISON CENTER or doctor/physician if you feel unwell + P223: Store in a well-ventilated area + P231+P232: If on skin: Wash with plenty of soap and water + P240: Avoid breathing dusts/fumes/gases/mists + P241: If in eyes: Rinse cautiously with water for several minutes + P242: Avoid contact with skin + P243: Put on protective gloves/protective clothing/eye protection/face protection + P273: Avoid release into the environment + P501: Dispose of contents and container in accordance with local/regional/national/international regulations</p> | | <p>2.3 Composition/information on ingredients 2.1 Substances Decaldehyde component: Conc. (wt%) EC No. CAS No. Methyl ethyl ketone: min. 99 202-466-6 96-29-7</p> | |
| <p>4.1 Description of first aid measures Inhalation: Remove victim to fresh air. Get medical attention. Skin: Immediately wash with soap and water for at least 15 minutes and get medical attention. Eye: Immediately flush with copious amount of water for at least 15 minutes and get medical attention. Ingestion: Immediately rinse mouth. Get medical attention.</p> | | | |

MSDS

| カプロラクタム / Caprolactam (ε - Caprolactam) | | GAS No. 105-60-2 | |
|---|--|---|--|
| <p>H302: 飲み込むと有害 H315: 皮膚刺激 H319: 強い眼刺激 H332: 吸入すると有害 H335: 呼吸刺激を起こすおそれ</p> | | <p>H302: Harmful if swallowed H315: Causes skin irritation H319: Causes serious eye irritation H332: Harmful if inhaled H335: May cause respiratory irritation</p> | |
| <p>警告</p> <p>● 原料または換気の悪い場所でのみ使用してください。 ● 保護手袋を着用してください。 ● 保護眼鏡/保護面を着用してください。 ● 気分が悪い時は、直ちに離れてください。 ● 潮に入ったりした場合、水で数分間洗浄し、次にコンタクトレンズを着用していて目から外れる場合は外してください。その後目を洗浄してください。 ● 吸入した場合、空気の新鮮な場所に移動し、呼吸しやすい姿勢で休息させてください。</p> | | <p>警告</p> <p>Use only outdoors or in a well-ventilated area. Wear protective gloves. Wear eye protection/face protection. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> | |
| <p>UBE 本社 宇都宮製薬株式会社 山口県宇都宮製薬株式会社 販売先 宇都宮製薬株式会社 東京支社 ラクタムBU 東京都中央区新富1丁目1番1号シーパルスビル TEL: 03-6411-0100 製造所 宇都宮製薬株式会社 宇都宮工場 山口県宇都宮製薬株式会社 山口県宇都宮製薬株式会社</p> | | <p>UBE INDUSTRIES, LTD. Caprolactam Business Unit, Chemicals & Plastics Company Seavans North Bldg, 1-2-1 Shiluhara Minato-Ku, Tokyo 105-8447, Japan TEL: +81-3-5419-6170</p> | |

GHS label

Glossary

- *1. MSDS: Material Safety Data Sheet (documentation containing the product name, physicochemical properties, hazard and toxicity information, usage, and related laws and regulations)
- *2. REACH regulation: Regulation on chemical substances enforced in the EU in June 2007 (REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals)
- *3. CLP Regulation: A new EU regulation pertaining to classification, labeling and packaging that facilitates the introduction of GHS within the EU. (CLP stands for Classification and Labelling and Packaging)
- *4. GHS: Globally Harmonized System of Classification and Labelling of Chemicals that are reflected in MSDS and container labels. GHS authorizes the display of standardized illustrations on the MSDSs and labels of hazardous products
- *5. Yellow Card (labeling system): A warning label that includes an emergency response guideline number and UN number, used in case of an accident under conditions where other information formats would be impractical because of mixed loading or small-order transportation
- *6. Yellow Card: Emergency card on which the product name, properties, handling methods, emergency measures and emergency contact numbers are entered in case of transportation accidents
- *7. Green procurement: Procurement of materials conducted by companies based on their individual safety and environmental criteria established to meet the requirements of relevant legal regulations, including the EU RoHS Directive that restricts the use of certain hazardous substances in electrical and electronic equipment

Measures to Prevent Air and Water Pollution

Measures to Prevent Air and Water Pollution

Measures to Prevent Air Pollution

The UBE Group monitors contaminants emitted into the atmosphere at the source, and pollution control is undertaken according to levels established in agreement with governments and our own voluntary air pollution prevention management standards. All of these measures are reflected in our factory operations.

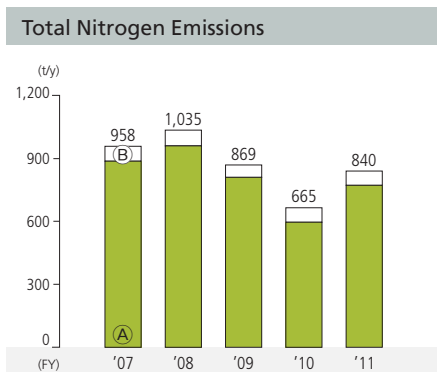
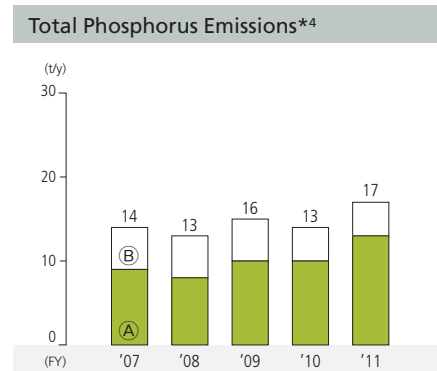
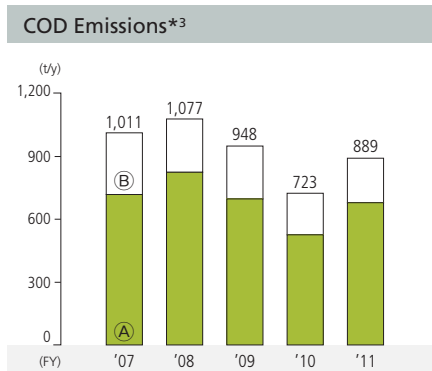
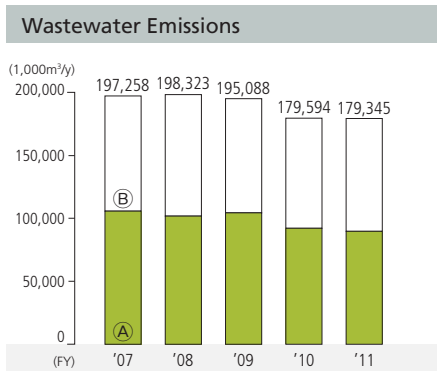
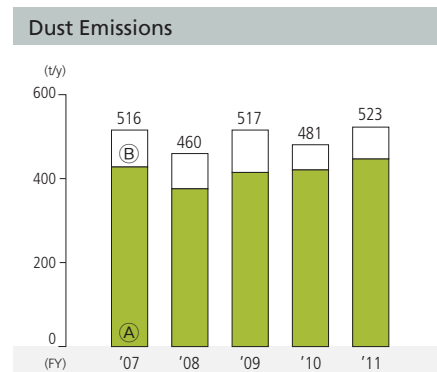
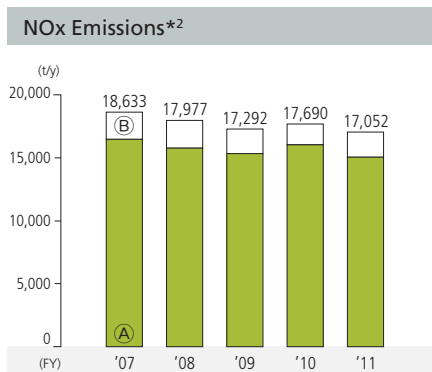
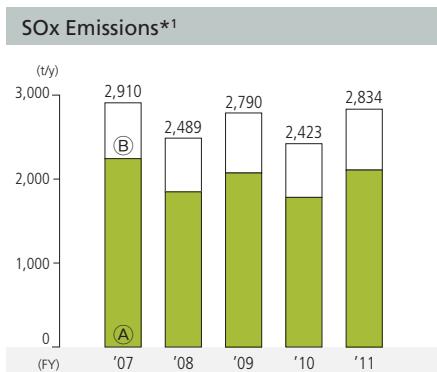
Measures to Prevent Water Pollution

The UBE Group has installed systems to monitor discharges of pollutants in water environments. In addition, UBE Group chemical plants, which can have an impact on public water quality, purify wastewater through the use of wastewater treatment facilities.

Measures to Prevent Odors

In the Ube district, the Group is taking steps to establish an odor monitoring system and decrease the number of odor-related complaints it receives.

(A) UBE (B) Group companies



Reference: Please refer to p. 38 for environmental impact data by factory

Glossary

*1. SOx: Sulfur oxides originate in the sulfur (S) component of fuels. Boilers are the main source of SOx.
 *2. NOx: Nitrogen oxides originate in the nitrogen (N) components of fuel and air when a fuel is combusted in the air. Boilers and cement kilns are the main sources of NOx.
 *3. COD (Chemical Oxygen Demand): This is an indicator of water pollution by organic substances and represents the amount of oxygen consumed in the chemical oxidation of organic matter.

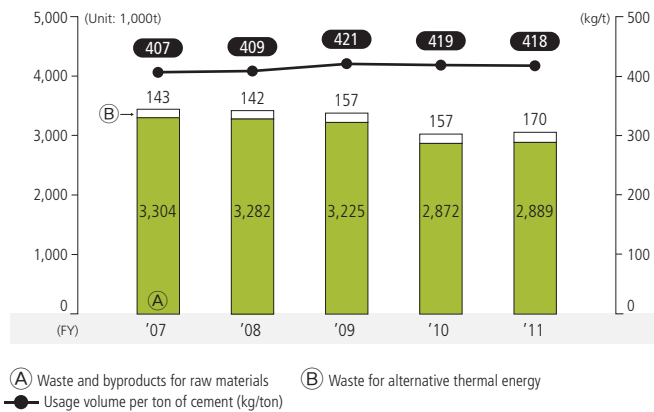
Effective Use of Waste

Waste Recycling at Cement Factories

Waste can be reused as a raw material (material recycle) and an alternative fuel (thermal recycle) in the cement-making process. For this reason, a wide variety of waste is treated at cement factories. The high calcining temperature of the cement kilns (1,450°C) burns and degrades substances that cannot be disposed of by ordinary incinerators. The kilns also offer a large waste-processing capacity. Ash produced by incineration can also be used as an alternative to clay, a component of cement, eliminating the need for final disposal sites for incineration ash.

The UBE Group's three cement factories actively accept and reuse various waste materials from both inside and outside the Group. In fiscal 2011, the Group's cement factories made effective use of around 3.06 million tons of waste and byproducts. Of this, about 2.99 million tons was sourced from outside of the UBE Group. This is one way the Group is significantly contributing to the formation of a recycling-based society. In addition, we are currently planning to install sludge drying equipment at the Isa Cement Factory, aiming to commence operations in 2012. The UBE Group will strengthen and expand its systems for dealing with a variety of waste and expand its recycling business.

Waste and Byproduct Consumption Volume



Guest Message

Takeru Tomita, Materials Manager, Sanshu Seishi Co., Ltd.



Recycling Ash from Incinerated Sludge for Use in Cement

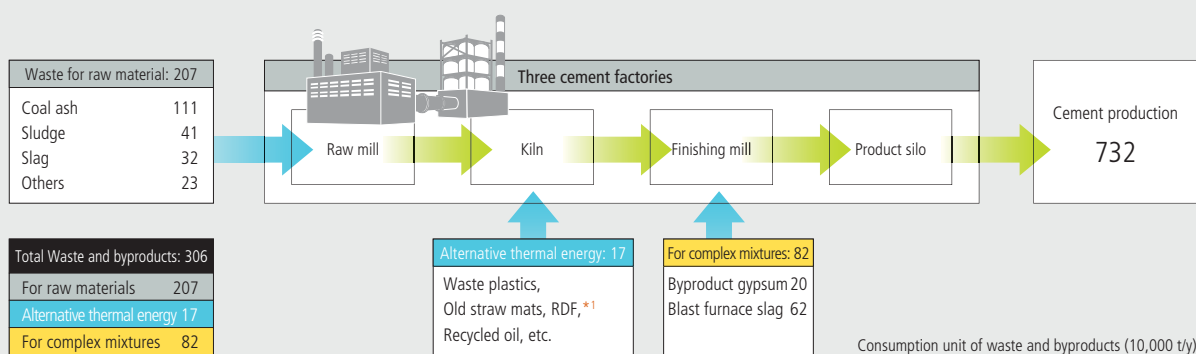
Sanshu Seishi Co., Ltd. is primarily involved in the manufacture and sale of newsprint (approximately 5,000 tons per month). Although pulp is normally required for paper production, we are using old newspapers as our primary raw material in order to reduce resource usage and thus be more environmentally friendly. We provide ash from incinerated sludge produced by the paper manufacturing process to UBE for use as a raw material for cement.

As a paper manufacturer that promotes paper recycling, the disposal of ash from daily incineration is a problem that cannot be avoided. To address this issue in the years ahead, we would like to strengthen the relationship that we have cultivated to date with UBE.

Cement Factory History of Waste Treatment Facility Installations

| | Alternative Thermal Energy | For Raw Material |
|------|---|--|
| 1998 | Kanda Factory: Waste oil treatment facility | Isa Factory: Chlorine bypass system |
| 1999 | | Ube/Kanda Factories: Waste water receiving treatment facility |
| 2000 | Ube Factory: Waste plastic treatment facility (1st train) | |
| 2001 | | Ube Factory: Sewage sludge treatment facility |
| 2002 | Kanda Factory: Waste plastic treatment facility (1st train) | Isa Factory: Sewage sludge waste treatment facility (1st train) Ube Factory: Chlorine bypass system Ube/Isa/Kanda Factories: Meat and bone meal treatment facility |
| 2003 | Isa Factory: Plastic waste treatment facility (1st train) | |
| 2004 | Isa Factory: Wood chip combustion facility for in-house power generation Isa Factory: Waste plastic treatment facility (2nd train) | |
| 2005 | | Kanda Factory: High-chlorine bypass system |
| 2006 | Kanda Factory: Waste plastic treatment facility (2nd train) | |
| 2007 | Ube Factory: Waste plastic treatment facility (2nd train) | Isa Factory: Sewage sludge waste treatment facility (2nd train) |
| 2008 | Isa Factory: Waste plastic treatment facility (3rd train) | Kanda Factory: Waste for raw material loading facility |
| 2009 | Kanda Factory: Waste plastic treatment facility (3rd train) | Kanda Factory: Fly ash treatment facility |
| 2011 | Kanda Factory: Facility to produce fuel from waste plastic | |
| 2012 | Isa Factory sludge drying equipment | |

Flow of Waste and Byproduct Usage at Cement Factories (Fiscal 2011)



Glossary

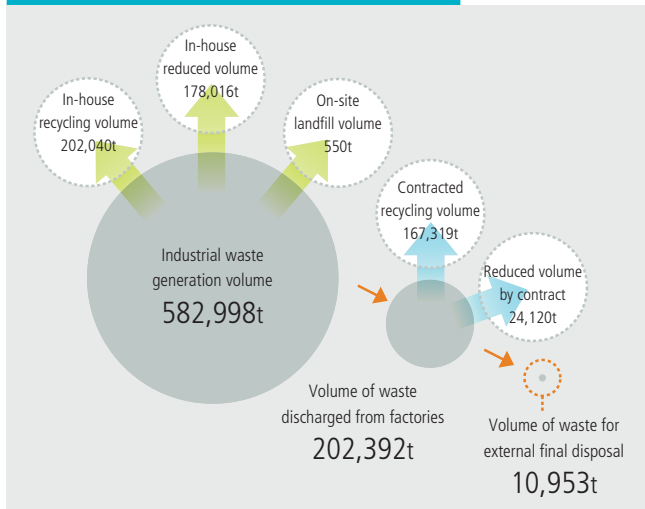
*1. Refuse Derived Fuel (RDF): Solid fuel made by compressing waste plastic, scrap wood and general garbage

Reduction of Industrial Waste

Medium-Term Waste Reduction Plan

By fiscal 2013, the UBE Group plans to have reduced the volume of industrial waste for external final disposal by 80% compared with the fiscal 2001 level.

Overall Flow of Industrial Waste in Fiscal 2011



Industrial Waste Reduction Volume

The entire UBE Group recycles industrial waste while striving to reduce its final disposal volume.

● Industrial Waste Generation Volume

Industrial waste is generated by many sources. Chemical factories primarily generate sludge, waste oil and waste plastic; on-site power-generating and ammonia plants generate coal ash; and machinery factories mainly generate waste oil and inorganic waste.

● Industrial Waste Recycling Volume

Most of the internal industrial waste produced by each Group factory is recycled in-house.

● Volume of Industrial Waste Discharged from Factories

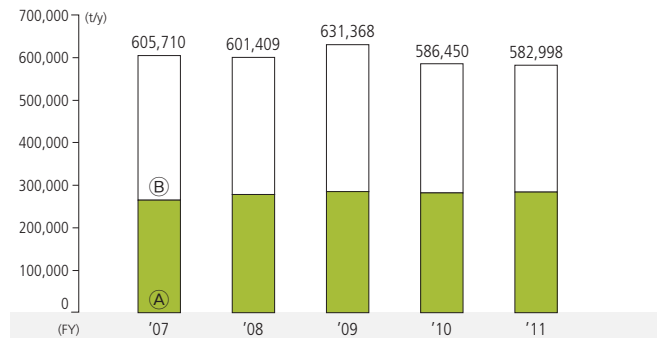
When contracting waste treatment or disposal to outside companies, the UBE Group utilizes industrial waste management forms (waste manifest system) in compliance with the waste treatment and clean-up laws and carefully manages the entire process.

● Volume of Industrial Waste for External Final Disposal

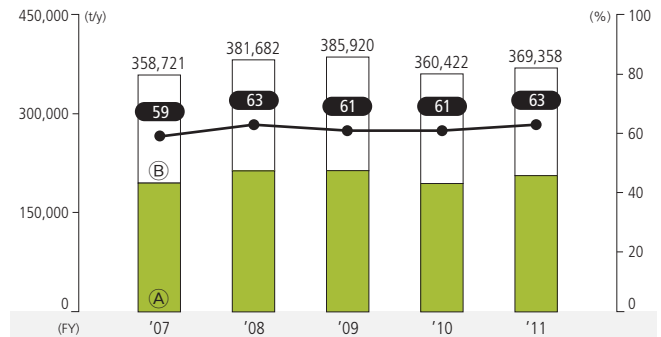
As of fiscal 2011, we had achieved a 66% reduction in industrial waste for final disposal, compared with the medium-term target of 80%.

(A) UBE (B) Group companies ● Group waste recycling ratio (%)

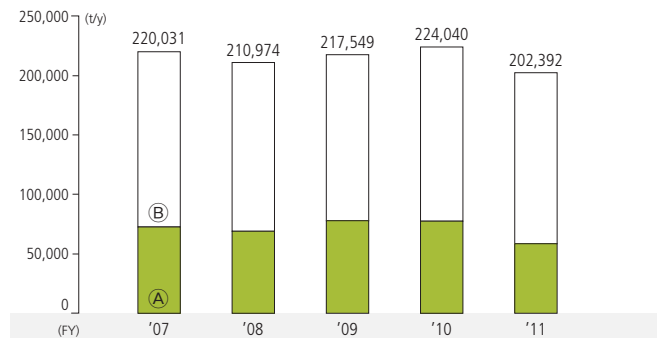
Industrial Waste Generation Volume



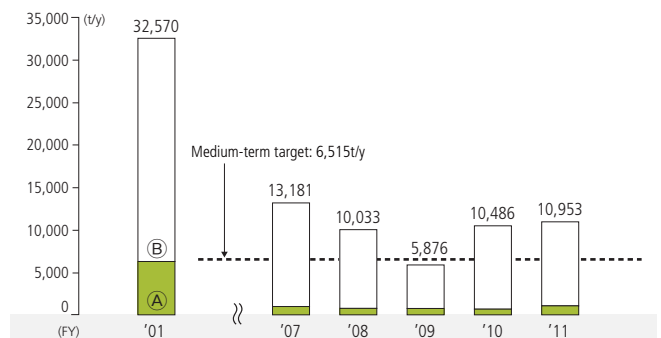
Industrial Waste Recycling Volume and Ratio



Volume of Industrial Waste Discharged from Factories



Volume of Industrial Waste for External Final Disposal



Occupational Safety/Health, Process Safety and Disaster Prevention

Measures to Prevent Occupational Accidents

To eradicate occupational accidents, the UBE Group promotes various safety-related measures, beginning with risk-assessments of facilities and operations. In addition, we implement measures in a lateral manner in this area by storing occupational accident-related information on a database that is displayed on the Company's intranet. Aiming to achieve zero accidents, we undertake initiatives to eliminate occupational accidents through small groups established at every factory. The Group also holds annual safety and health rallies in order to raise awareness of these issues among Group employees and partner companies.

Measures against Asbestos

As a result of health hazard-related surveys that determine whether or not employees have been exposed to asbestos, the Group cooperates in the submission of industrial accident reports by individuals whose examination results warrant medical attention. In addition, employees who have handled asbestos-related products, including those who are now retired, undergo health examinations.

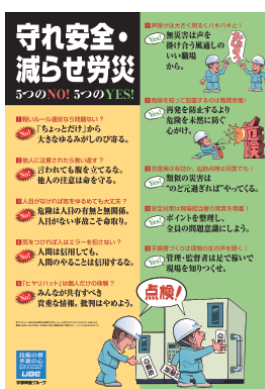
The Group also appropriately treated problems at locations where a high rate of asbestos diffusion was found. In addition, the Group is promoting systematic measures for the disposal and replacement of asbestos materials. Moreover, insulation and gasket packing are replaced regularly with substitute products when piping is opened.

Prior Safety Assessment of Chemical Substances

Based on procedures designated in the safety assessment standards, we also perform in advance safety assessments of new chemical substances and chemical substances that we plan to start handling at factories. In fiscal 2011, the UBE Group performed 34 chemical substance safety assessments.



UBE Group Safety and Health Conference
(all executives and employees share the same safety calls)



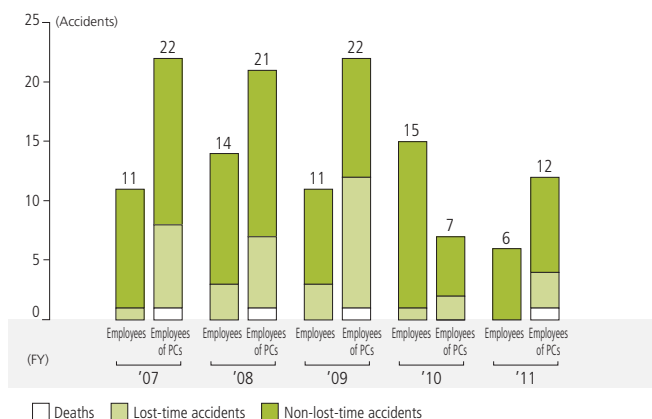
The safety assurance and accident reduction poster represents the culmination of opinions gathered by over 3,000 UBE Group employees at UBE's workplace safety conference.

Causes of UBE Group Occupational Accidents (Percentage of all accidents) (%)

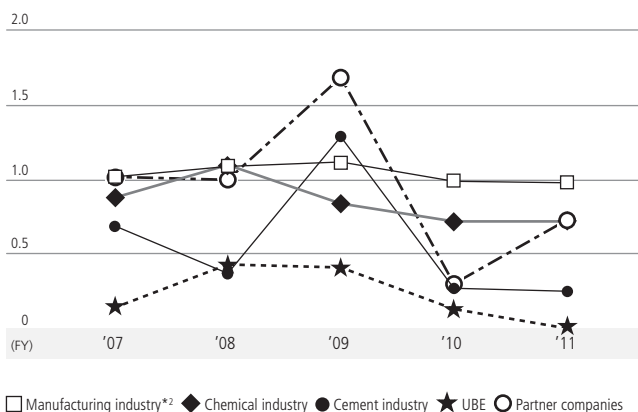
| FY | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|------|------|------|------|------|
| Combination | 44 | 41 | 56 | 37 | 34 |
| Unsafe actions | 43 | 48 | 37 | 61 | 60 |
| Defective equipment | 9 | 3 | 4 | 2 | 6 |
| Others | 4 | 8 | 3 | 0 | 0 |

Combination: Unsafe actions and defective equipment

Number of Occupational Accidents (Involving Employees of UBE and Those from Partner Companies (PCs))



UBE Lost-Time Injury Frequency Rate*1



□ Manufacturing industry*2 ◆ Chemical industry ● Cement industry ★ UBE ○ Partner companies

*1. Frequency rate = (Number of lost-time injuries)/(total work hours) x 1,000,000 hours

*2. Data on lost-time industry frequency rates for the manufacturing, chemical, and cement industries is based on statistics supplied by the Ministry of Health, Labour and Welfare

Taking Steps to Maintain Process Safety and Safe Operations

● Plant Safety Assessment

The methods stipulated in the plant safety assessment standards are followed when carrying out pre- and post-plant safety assessments of newly installed, additional, or modified facilities. Such assessments are also carried out when relevant laws and ordinances are either established or revised. In fiscal 2011, the UBE Group carried out 68 safety assessments.

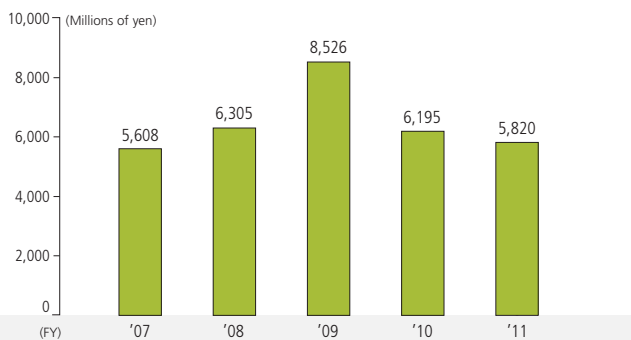
● Security and Disaster Prevention Measures

The Group systematically implements emergency drills at its facilities. The status of training is posted on the Company intranet so that it is informative to an even greater number of people. In addition to mutual workplace checks conducted by safety supervisors, we undertake mutual safety patrols with partner companies.

● Environment & Safety Qualification

We encourage employees to obtain legally recognized qualifications for the safe operation and management of various workplaces.

Occupational Safety, Health and Disaster Prevention Expenditure of the UBE Group



Staff Message

Tomohiko Yamamoto, Manager, Environment & Safety Dept.



Unforeseen Disasters

As the person in charge of security and disaster prevention, the intensity of the Great East Japan Earthquake forced me to reevaluate many aspects of how I approach my duties. I sometimes hear the word “unforeseen” used in terms of disaster countermeasures. To what extent should risk evaluations and countermeasures be undertaken to address potential damage to factory facilities? Is our present system sufficient when it comes to precisely responding to unforeseen circumstances? By making a sincere effort to engage in discussions about such unforeseen issues—that is, things that are simply unknowable—it goes without saying that we will be able to conceive of scenarios that are entirely beyond our current experience.



Comprehensive disaster prevention drill at the Chiba Petrochemical Factory

UBE Group Facility-Related Accidents (including environmental accidents)

(Unit: Accidents)

| FY | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|------|------|------|------|------|
| UBE | 0 | 0 | 0 | 5 | 2 |
| Group companies | 3 | 1 | 4 | 2 | 3 |

Response to the Third-Party Expert Comments in the 2010 CSR Report

“I would like to see the UBE Group to account for the reasons why security and disaster prevention targets outlined in the Responsible Care (RC) Code were not attained.”

Junko Nagata



The UBE Group is currently confronting the issue of a lack of skilled personnel due to the retirement of seasoned engineers. This deficiency has led to a growing number of human error-related accidents Groupwide. Examples of such accidents include incorrect equipment operation and verification mistakes. The overt causes of human error-related accidents include workers who lack skills and knowledge as well as those who fail to follow rules. Against this backdrop, insufficient management structures and systems are the latent causes of many of these accidents.

In fiscal 2011, we addressed this issue by augmenting related education and mechanisms while improving facilities and procedures to avoid mistakes. These and other initiatives have been implemented under the theme “eradicating human error” and are intended to foster an understanding of the causes of such accidents. Referred to as “Know-Why,” we impress upon employees the reasons behind the formulation of safety manuals and regulations.







Moreover, there are obvious examples of employees repeatedly making the same mistakes due to a failure to transfer what they have learned in training to their work. This phenomenon is the common link between occupational accidents and damage to facilities. It is important to identify the causes of and establish countermeasures for latent dangers by engaging in education based on an analysis of past accidents that occurred at other facilities. I believe that this approach will be effective in the prevention of human error-related accidents. In fiscal 2012, we will work to further improve our efforts in this area by promoting the theme, “building mechanisms to laterally spread effective accident-related information.”

Naritoshi Kitada, General Manager, Environment & Safety Dept.

Socially Valuable Products and Technologies of UBE Group

The UBE Group provides a large variety of products and technologies, ranging from those related to the automobile and information industries to those in use throughout the underlying infrastructure and daily life of modern society. The Group actively promotes projects that enable reductions in CO₂ emissions and the creation of a recycling-based society in all of its business fields and works hard to provide "products and technologies that are friendly to both humans and the environment." Introduced here are some of the UBE Group's products, which total more than 500, and their environment-friendly attributes.

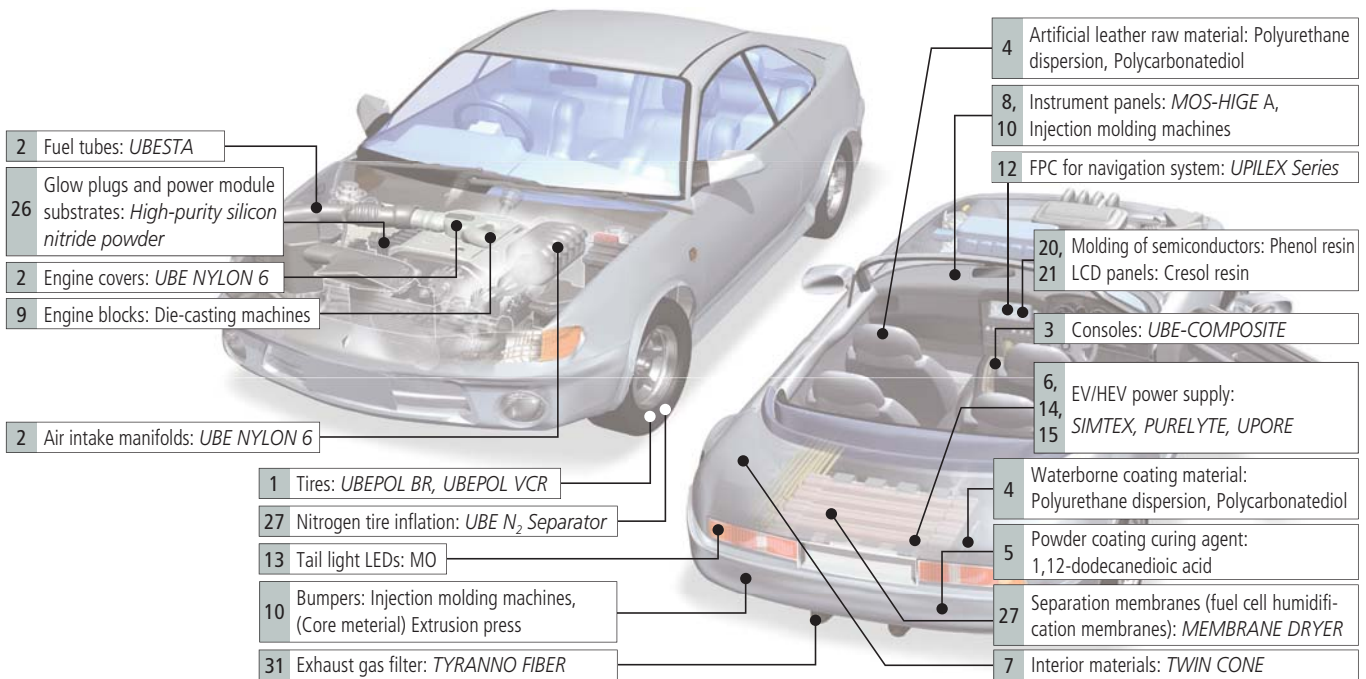
Legend: Product benefits

-  Reducing CO₂ emissions: Reducing emissions of greenhouse gases known to contribute to global warming
-  Recycling: Reusing waste or improving the quality of waste for effective recycling and utilization of resources
-  Purification of water: Improving the quality of water and sterilizing water to preserve a clean environment
-  Providing environment-friendly products: Producing and using alternative products that have a positive effect on the environment
-  Contribution to health: Supporting the health of people
-  Advanced technology: New technologies that contribute to people's abundant lifestyles

★ Indicates an example of application

Automotive-Related Fields



UBE supports auto manufacturing with environment-friendly materials and components.



Chemicals



★ 1   Polybutadiene rubber
UBEPOL BR, UBEPOL VCR
Synthetic Rubber Business Unit

Applications: Automotive tires, footwear, polystyrene quality improvement agent, etc.
Features: More elastic and abrasion resistant than natural rubber. Among the wide variety of UBE's specialty products, *UBEPOL VCR* is a groundbreaking product, enabling reduced weight in rubber products.



★ 2   Polyamide resin
A. Nylon 6: *UBE NYLON 6, TERPALEX*
B. Nylon 12: *UBESTA, UBESTA XPA*
Engineering Plastics Business Unit

A. Applications: Automotive components including air intake manifolds, product packaging film, etc.
Features: It is the toughest resin among engineering plastics. Often used for automotive components due to its good thermal and chemical resistance and better processing, helping to reduce weight and lower fuel consumption. Suitable for food packaging because of its superior oxygen gas barrier properties

B. Applications: Tubes, coating, automotive components, etc.
Features: *UBESTA XPA* features the same basic properties as nylon, making it lightweight, with high dimensional stability and flexibility at low temperatures. The product's flexibility and transparency effectively realize characteristics that cannot be achieved by plastic or rubber alone.

★ 3   Recycle compound *UBE-COMPOSITE*
RCP Project Promotion Group

Applications: Home appliances, automotive components, chairs, etc.
Features: Color-adjusting recycle compound, which can change the color tint of waste plastics.

★ 4   Raw material for waterborne coating and artificial leather
A. Polyurethane dispersion (*ETERNACOLL UW series*)
B. Polycarbonatediol (*ETERNACOLL UH series*)
Fine Chemicals Business Unit

Applications: Automotive waterborne coating, artificial leathers for luxury cars
A. Features: As waterborne polyurethane, contributes to the reduction of VOCs (volatile organic compounds)
B. Features: Used as the primary material for high-grade polyurethane applications (waterborne coating, high-durable PU resins, and artificial leathers), which have low environmental impact.

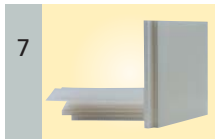
5   Powder coating curing agent 1,12-dodecanedioic acid
Fine Chemicals Business Unit

Applications: Curing agent for powder coating material used for automotive wheels
Features: As a resin curing agent for powder coating material, helps reduce VOC emissions.



6 High-strength polypropylene fiber *SIMTEX*
Ube-Nitto Kasei Co., Ltd.

Applications: Nickel-hydrogen battery separator equipped on hybrid cars
Features: Polypropylene fibers that have undergone highly oriented crystallization through a newly adopted stretching process



7 Four-level, hollow honeycomb-structure substrate: *TWIN CONE*
Ube-Nitto Kasei Co., Ltd.

Applications: Interior materials for automobile luggage racks, etc.
Features: Optimal for use as an interior material in hybrid and electric vehicles thanks to its uniquely configured hollow honeycomb structure, which results in a superior lightweight, strong and noise absorbent design

Cement & Construction Materials



8 Basic magnesium sulfate *MOS-HIGE A*
Ube Material Industries, Ltd.

Applications: Resin filler
Features: Helps reduce the weight of automotive PP resin components

Machinery & Metal Products



9 Die-Casting Machines
Ube Machinery Corporation, Ltd.

Applications: Automotive aluminum components, including engine blocks and transmission cases
Features: Achieves higher energy and space efficiencies and greater functionality. Machines are the world's smallest of their kind.

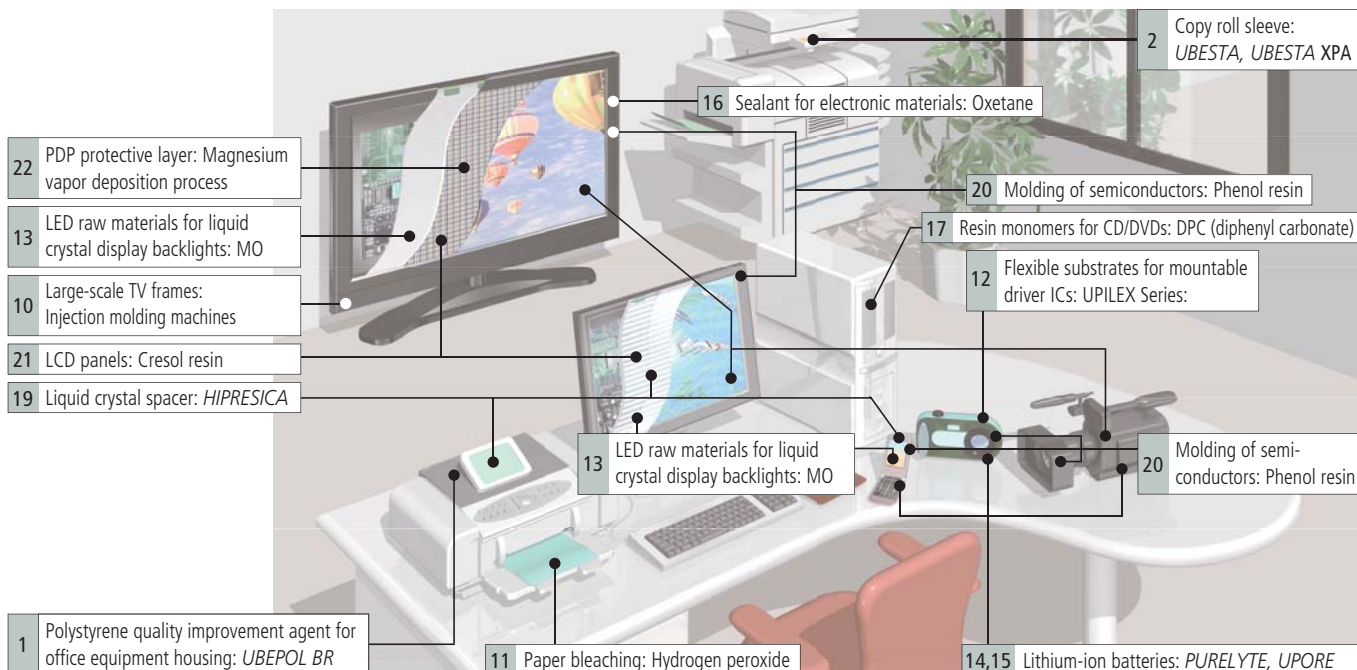


10 A. Extrusion presses
B. Injection molding machines (All-electric IM)
Ube Machinery Corporation, Ltd.

A. Applications: Aggregate materials for car bumpers and aluminum sash for window frames
Features: Capabilities for complex and intricate extrusion molding
B. Applications: Molding machines for automotive and home appliance plastics, including large-screen TVs and washing machine frames
Features: This all-electric machine can achieve substantial reduction in energy consumption compared to general hydraulic injection molding machine.

Information, Electronics and Communications-Related Fields

Sophisticated environmental technologies are the cornerstone of materials that contribute to the foundation of society.

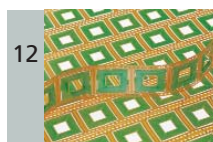


Chemicals



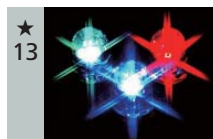
11 Hydrogen peroxide
UBE-MC Hydrogen Peroxide, Ltd.

Applications: Bleaching and sterilizing of pulp and paper
Features: Reduced environmental impact of related processes. Generates non-hazardous water and oxygen when decomposed. Replacement for chlorine



12 Polyimide film *UPILEX Series*
Electronic Components & Materials Business Unit

Applications: Base material for ICs used in digital equipment, such as LCD/plasma TVs, cellular phones, and digital cameras
Features: Well-suited for use as base material for high-resolution circuits due to its high dimensional stability with high heat resistance and rigidity



13 Metal organic compounds (MO)
High Purity Chemicals Business Unit

Applications: Raw material for Light-Emitting Diodes (LED)
Features: LEDs require less electricity and lasts longer than conventional light bulbs.



Functional electrolytes for lithium-ion batteries *PURELYTE*
Specialty Battery Materials Business Unit

Applications: Electrolytes used in lithium-ion batteries installed in items including mobile phones and personal computers

Features: Functional electrolytes are designed to customer requirements with the combination of highly purified electrolyte and additives for controlling battery performance.



Microporous Polyolefin Film *UPORE*
Separator Group
Specialty Battery Materials Business Unit

Applications: Lithium-ion battery separators

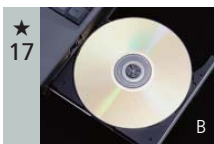
Features: Films manufactured using a dry process that uses neither solvents nor inorganic fillers.



Raw material for use in UV-curing coating/adhesive material *Oxetane (ETERNACOLL EHO, OXBP, OXMA, HBOX)*
Fine Chemicals Business Unit

Applications: Sealant and adhesive for electronic materials

Features: Used as raw material for UV-curing coating/adhesive material, helping reduce VOC emissions



**A. DMC (dimethyl carbonate)
B. DPC (diphenyl carbonate)**
Fine Chemicals Business Unit

A. Applications: Solvent for ink, coatings, adhesives and others

Features: A solvent of low-toxicity that improves the work environment and the eco-friendly quality of printed materials

B. Applications: CDs, DVDs and other optical uses, frames for home appliances and other products, polycarbonate resin monomer used in car port roofs, expressway sound insulating boards and other products.

Features: Contributing to a safer and cleaner production process by not using the poisonous gas, phosgene, during the manufacture of polycarbonate resin



1,6-Hexanediol
Fine Chemicals Business Unit

Applications: As a raw material for dry laminate adhesive for food packaging and also for UV-curing coating used in items including mobile phones.

Features: Use of 1,6-Hexanediol requires no solvents, which therefore contributes to VOC reduction.



Silica particles *HIPRESICA*
Ube-Nitto Kasei Co., Ltd.

Applications: Spacer for liquid crystal displays

Features: Providing single dispersal with a spherical shape, this is ideal as a spacer (a gap material used to maintain the liquid crystal at an even thickness), essential to high-performance liquid-crystal displays.



Phenol resin *MEH-7851*
Meiwa Plastic Industries, Ltd.

Applications: Molding of semiconductors used in hybrid and electric vehicles, computers and cellular phones Laminates

Features: Used to harden epoxy resins. Incombustible due to its special resin structure, eliminating the need to use halogenated flame retardant. Environment-friendly, halogen-free material

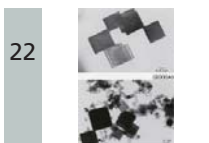


Cresol resin *MER-7959*
Meiwa Plastic Industries, Ltd.

Applications: The raw materials of the photoresist used for circuit formation in the LCD panels of LCD TVs, cellular phones and other products

Features: Proprietary technology is used to realize high-photoresist performance, while contributing to the increasing precision of LCD panels and low energy consumption

Cement & Construction Materials



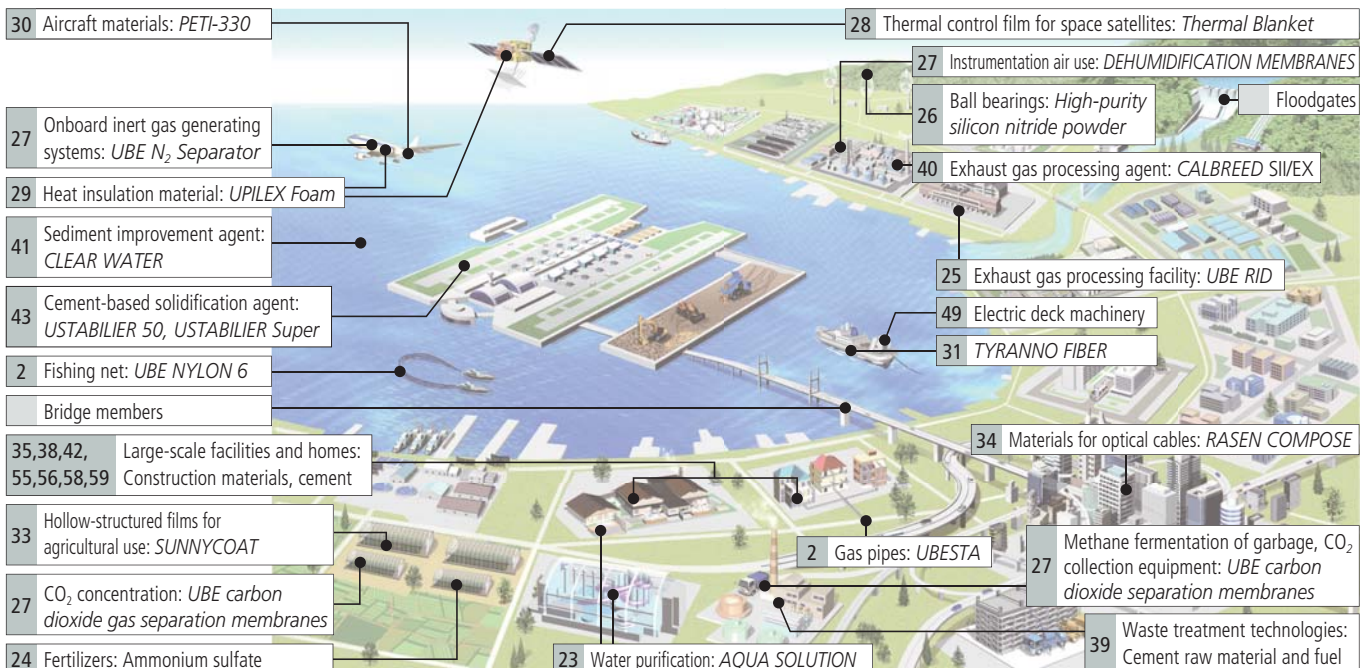
**Oxidized magnesium, a vapor-deposited, high-purity fine powder magnesia
*High purity & ultrafine single crystal magnesia powder***
Ube Material Industries, Ltd.

Applications: Base material for PDP protective layers and phosphors

Features: Produced through a vapor oxide reaction that occurs when high-purity magnesium vapor combines with oxygen

Industrial and Social Infrastructure-Related Fields

Helping to build social infrastructure based on advanced environmental technologies



Research & Development

23



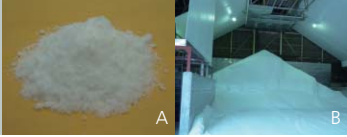
Photocatalytic fiber module *AQUA SOLUTION*

Photocatalytic Products Team, Administration & Planning Department

Applications: Sterilization of bathwater, purification of plating rinse water
Features: Utilizing light to purify water (photocatalytic reaction). A human and environment-friendly system without chemical use

Chemicals

24



A. Caprolactam
B. Ammonium sulfate
Caprolactam Business Unit

A. Applications: Nylon 6 raw material
Features: Production bases in Japan, Thailand and Spain. One of the world's top three producers
B. Applications: Raw material for nitrogen fertilizer
Features: Caprolactam byproduct material

25



Exhaust gas processing facility *UBE RID*

High-Purity Chemicals Business Unit

Applications: Capture exhaust emissions from semiconductor/LCD factories
Features: Complete capture of toxic hazardous gases/powders emitted from operations of semiconductor/liquid crystal factories

★
26



High-purity silicon nitride powder

Ceramics Group
Specialty Products Business Unit

Applications: Ball bearings for wind power generators, glow plugs for diesel engines, power module substrates for automobiles
Features: Wide range of applications because of its excellent durability and ability to prevent electrolytic corrosion

27



Separation membranes

A. *UBE organic solvent (alcohol) dehydration membranes*
B. *UBE carbon dioxide gas separation membranes*
C. *Nitrogen separation membranes (UBE N₂ Separator)*
Others: *Hydrogen separation membranes; DEHUMIDIFICATION MEMBRANES*

Separation Membranes Group, Specialty Products Business Unit

A. Applications: Bioethanol dehydration
Features: Effectively dehydrates azeotropic compositions. Membrane separation can increase solvent concentration to more than 99%.
B. Applications: Removes CO₂ from bio-gases (methane)
Features: Removes CO₂ from gases generated by sludge and refuse, increasing the methane concentration
C. Applications: Nitrogen generators for filling tires and explosion protection for mines, oil tankers, etc.
Features: Tire pressure is less likely to drop, increasing fuel efficiency. Explosion protection for oil fields, tankers, etc.

★
28



Thermal control film *Thermal Blanket*

Aerospace Materials Business Group

Picture provided by JAXA

Applications: Thermal control material for aerospace applications
Features: Thermal control film made from *UPILEX* film with vapor-deposited aluminum and other materials. Offers superior environmental resistance in outer space and is widely used in Japanese satellites.

29

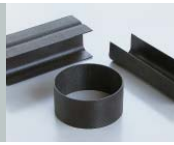


Polyimide foam *UPILEX Foam*

Aerospace Materials Business Group

Applications: Thermal insulation and sound and vibration absorption in satellites, airplanes, etc.
Features: Provides thermal, fire and environmental resistance not available in conventional foams.

30



PETI-330, PETI-365 Prepeg polyimide resin for heat-resistant composite materials

Aerospace Materials Business Group

Applications: Composite material primarily used in the aerospace field
Features: Incorporates carbon fibers, has superior heat resistant and mechanical properties, and contributes to weight reduction when substituted for metal alloy parts

31



SiC Fiber: *TYRANNO FIBER*

Aerospace Materials Business Group

Applications: Components for aircraft, automobiles and ships, etc.
Features: Continuous ceramic fibers incorporating silicon, titanium, zirconium, carbon and oxygen and that have superior heat resistant, mechanical and electrical properties

32



Plastic cardboard *DANPLATE*

Ube-Nitto Kasei Co., Ltd.

Applications: Returnable boxes, delivery containers, etc.
Features: Heavier-duty than paper-based cardboard, plastic cardboard *DANPLATE* can be used repeatedly and is recyclable after use.

33



Hollow-structured films for agricultural use *SUNNYCOAT*

Ube-Nitto Kasei Co., Ltd.

Applications: Agricultural greenhouse double curtains
Features: Exhibits heat-retention effects with superior middle air layer. Curbs energy consumption for greenhouse heating

34



Material for optical cables *RASEN COMPOSE*

Ube-Nitto Kasei Co., Ltd.

Applications: *RASEN COMPOSE* spacers for optical cables
Features: Ideal for protecting the optical fiber and high-density packages. Used in Japan's nationwide optical communications network

Cement & Construction Materials

★
35



Modified bitumen-based roofing *RAM SHEET*

Construction Materials Div.

Applications: Waterproof sheet for roofing
Features: Self-adhesive application at normal temperatures means use of flames or solvents is generally not required.

★
36



Gardening material *GREENTHUMB*

Construction Materials Div.

Applications: Light artificial gardening soil
Features: Non-toxic, germ-free artificial soil made from perlite. Facilitates plants' growth by enhancing the airflow and water retention of the soil

★
37



Sulfate-resistant mortar *U-ACITECHTN*

Construction Materials Div.

Applications: Cross-section restoration material (maintenance of aging sewage treatment facilities and cisterns)
Features: Renovates and enhances service life for existing social infrastructure



★
38



Earthquake-resistant *DESIGN FIT* Process

Construction Materials Div.

Applications: Earthquake proofing reinforcement process

Features: Reinforces and upgrades schools and other existing ferroconcrete structures with steel structure earthquake-resistant bracing reinforcement process that shortens construction lead times and reduces costs.



39



Waste treatment technologies

- A. *High-chlorine bypass system*
- B. *Sewage sludge treatment facilities*
- C. *Sewage sludge transport system using JR's containers*
- D. *Facility to treat incineration ash from household waste*
- E. *Waste oil/liquid treatment facility*
- F. *Facility to produce fuel from waste plastic*
- G. *Biomass wood chip manufacturing facility*

Material Recycle Div.



A. Features: Capable of treating waste with high-chlorine content waste, such as incineration ash from household waste and RDF.

B. Features: Facility that uses sewage sludge as cement material

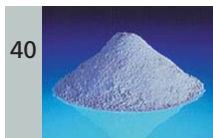
C. Features: Reduces CO₂ emissions through modal shift. Uses deodorizer-equipped containers to reduce odor levels

D. Features: Facility to treat incineration ash resulting from disposal of household waste and digging out old ash at waste disposal sites when renovating the sites for long-term use

E. Features: Facility to detoxify waste oil and waste liquid

F. Features: Facility to process waste plastics by crushing and using as alternative fuel

G. Features: Facility to produce wood chips from waste and thinned woods, which are used as fuel for electric power generation. Contributes to optimization of biomass resources



40



Exhaust gas processing agent

CALBREED SIII/EX
Sorbalit

Ube Material Industries, Ltd.

Applications: Removal of toxic materials contained in exhaust gas

Features: Exhaust gas treatment agent to improve ability to absorb toxic acid gases emitted during incineration of industrial waste. Ultrahigh exhaust gas agent that features quality improvements that surpass conventional products



★
41



Sediment improvement agents *CLEAR WATER*

Ube Material Industries, Ltd.

Applications: Purification of seawater, sediment improvement agent for farms

Features: Improves water and sediment quality in fish farms, enclosed water areas, etc.



★
42



Portland cement

Fly ash cement
Blast furnace slag cement

Ube-Mitsubishi Cement Corporation

Applications: Civil engineering and construction processes

Features: Uses industrial waste, including sewage sludge, blast furnace slag (generated by steel manufacturers) and fly ash (generated by coal-fired power plants), as a part of raw materials and fuels



★
43



Cement-based solidification agent

A. USTABILIER 50
B. USTABILIER Super

Ube-Mitsubishi Cement Corporation

Applications: Soil stabilizing work

A. Features: Controls the release of hexavalent chromium from stabilized soil during construction.

B. Features: Controls dust generation during soil stabilizing work.

Machinery & Metal Products



44



Air Floating Conveyor

Ube Machinery Corporation, Ltd.

Applications: Carries materials on a belt supported by continuous air flow

Features: Since the conveyor belt is fully sealed, neither dust nor fumes leak outside. Maintenance costs are inexpensive.



45



Billets (steel ingots for rolling)

Ube Steel Co., Ltd.

Applications: Steel material for rolling to produce shaped steel, bar steel, wire rods, etc.

Features: Manufactured in an electric furnace under a process that recycles steel resources. Environment-friendly, recycled product that uses scrap (main material), as well as industrial waste (e.g., waste plastics), as raw materials and fuels



46



Biomass-fueled water and steam boiler

UMF (Ube Multi Fuel) Boiler biomass fuel boiler

Ube Techno Eng. Co., Ltd.

Applications: Water and steam boiler using various types of biomass as fuel

Features: Boiler that can operate with a wide variety of biomass fuels, e.g. wood-type fuels (wood pellets, wood chips) and waste-type fuels (RPF, PKS and animal excrement)



47



Facility to improve water quality with micro-bubble ozone

MBO3

Ube Techno Eng. Co., Ltd.

Applications: Decolorization, sterilization of wastewater and reduction of sewage sludge volume

Features: With micro-bubble ozone, decolorizes and sterilizes wastewater and reduces the volume of sewage sludge effectively.



48



Kiln exhaust heat recovery equipment

Ube Techno Eng. Co., Ltd.

Applications: Recovers heat that is produced from the body of kilns

Features: Conventional kilns can be converted at low cost allowing for the recovery of exhaust heat as hot water.



49

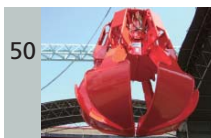


Electric deck machinery

Fukushima Ltd.

Applications: Ship deck-mounted machinery

Features: Electric drive contributes to energy conservation



50



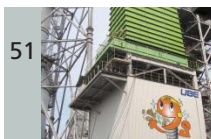
Energy-saving grab bucket

Fukushima, Ltd.

Applications: Grab bucket used at waste disposal facilities

Features: Reduces CO₂ emissions by about 28% compared to the conventional fixed-pump type

Energy & Environment



51



Facility to produce biomass fuel for power plants

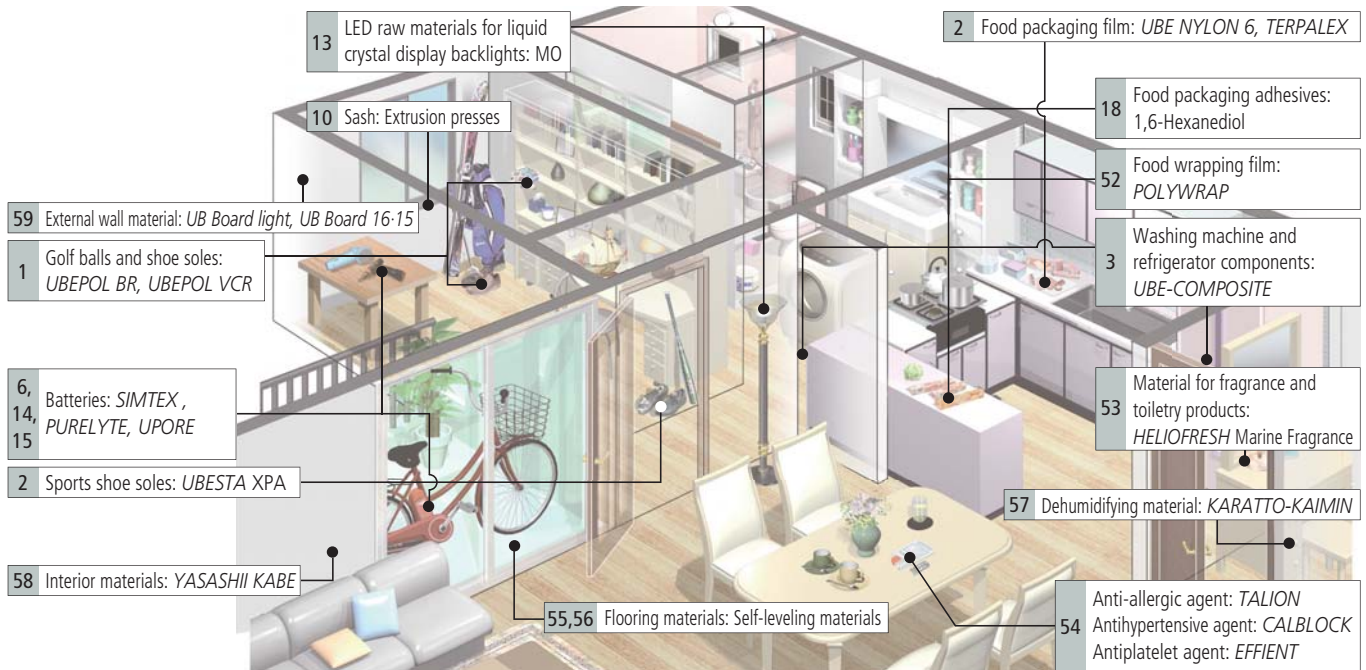
Power Business Unit

Applications: Dry and grind wood biomass (e.g., waste construction materials) at a dedicated grinding mill so as to use it in co-firing with coal in a pulverized coal boiler



Features: With a high co-firing ratio (9%, caloric base), achieves a 100,000-ton annual reduction of CO₂ emissions at UBE's IPP power generation plant

Pharmaceuticals and Lifestyle-Related Fields

UBE Group Products and Technologies are used in all aspects of modern life.



Chemicals

52  
A. POLYWRAP
B. Shrink film ECO SOFT
 Ube Film, Ltd.



Applications: Food wrapping film and additive-free polyethylene wrapping film
 Features: No emission of dioxin or other toxic gases when combusted because it contains no chlorine.

53  
Material for fragrance and toiletry products:
HELIOFRESH, HELIOTROPINE
 Fine Chemicals Business Unit

Applications: Synthetic fragrance for use in perfumes and toiletries
 Features: As an alternative to scents made with natural ingredients, this product prevents deforestation of the Sassafras tree (a member of the Laurel family)

54  
A. Anti-allergic agent TALION
B. Antihypertensive agent CALBLOCK
C. Antiplatelet agent EFFIENT
 Pharmaceutical Div.

A. Applications: Medicine to alleviate allergic reactions such as hay fever
 Sales: Mitsubishi Tanabe Pharma Corporation
 B. Applications: Medicine to lower blood pressure
 Sales: Daiichi Sankyo Co., Ltd.
 C. Applications: Medicine that controls the buildup of platelets within blood vessels (coagulation of blood)
 Sales: Daiichi Sankyo Co., Ltd. and Eli Lilly and Co.

56  
F☆☆☆☆ Mark-certified (formaldehyde-free) construction materials
Tenba Leveler
U-Grout
U-MIX
 Construction Materials Div.

Applications: Plastering, flooring, and walling materials for living areas
 Features: Obtained the F☆☆☆☆ Mark certification, the most rigorous formaldehyde release standard under a voluntary labeling system in Japan Building Coating Materials Association. Being formaldehyde-free, it has no harmful effects.

57  
Dehumidifying material KARATTO-KAIMIN
 Ube Material Industries, Ltd.

Applications: Dehumidifying material for clothes and mattresses
 Features: The main component is Type-B silica gel, capable of being used repetitively after drying in the sun.

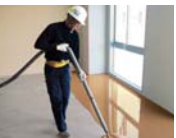

58  
Healthy, humidity-conditioning building material
YASASHII KABE
 Ube Board Co., Ltd.

Applications: Interior materials for rooms with high humidity
 Features: Primarily made from natural diatomite. Capable of humidity conditioning and absorption and decomposition of VOCs that cause sick building syndrome, helping to maintain a pleasant living environment

59  
External wall material
UB Board Light
UB Board 16-15
 Ube Board Co., Ltd.

Applications: External wall materials
 Features: A product that reuses fly ash and other industrial waste in raw materials

Cement & Construction Materials

55  
Self-leveling materials
SL FLOW G
Tough Leveler G
Quick Ceramic Flow
 Construction Materials Div.

Applications: Flooring material
 Features: Its rapid-hardening property allows smooth and flat flooring to be completed within a short period, helping to accelerate the entire construction period.

Site Reports (UBE Group's Environmental Performance for Targeted Companies and Principal Manufacturing Bases)

Chiba Petrochemical Factory

Location: 8-1 Goi Minami Kaigan, Ichihara City, Chiba Prefecture
Start of operations: 1964
No. of employees: 260
Main products: Polyethylene, butadiene rubber, waterproofing materials, polyimide products (COF)



The Chiba Petrochemical Factory manufactures petrochemical products that support the lifestyles of people everywhere. Over the past year, we have upgraded the factory to create new value. For example, we began producing new types of rubber for use in fuel-efficient tires as well as resins for solar cells. Both products help prevent global warming. In addition, we are working to improve energy efficiency and reduce the emission of environmentally harmful substances in an effort to make the Chiba Petrochemical Factory more environmentally friendly.

Makoto Aikawa, Factory Manager

Ube Chemical Factory

Location: 1978-10 Kogushi, Ube City, Yamaguchi Prefecture
Start of operations: 1933
No. of employees: 1,236
Main products: Caprolactam, nylon resins, industrial chemicals, fine chemicals, high-purity chemicals, polyimide products, separation membranes, new materials, active pharmaceutical ingredients, intermediates



As the mother factory for the Company's chemical business, the Ube Chemical Factory produces superior quality products in such areas as chemicals, resins, specialty and fine chemicals, and pharmaceuticals. At the same time, we maintain safe and stable operations. In fiscal 2011, we focused on building a number of new facilities while upgrading existing ones. We deepened our interactions with the local community by participating in dialogue meetings, holding the Chemical Summer Festival and other initiatives. Such actions are undertaken based on the UBE Group's corporate philosophy of "living and prospering together with the local community."

Etsuo Matsunaga, Executive Officer, Factory Manager

Sakai Factory

Location: 3-1 Chikko Shinmachi, Nishi-ku, Sakai City, Osaka
Start of operations: 1967
No. of employees: 286
Main products: Caprolactam, ammonia, liquefied carbon dioxide, electrolytes, separation membranes, polyimide products, recycled compounds



Our factory is located in Sakai City, which, as an environment-friendly model city, has announced the Cool City Proclamation. The factory manufactures chemical products and specialty materials and is taking proactive steps to conserve energy and resources. In 2010, we invited members of the local community to visit the factory in order to exchange opinions and promote interaction with residents. Our goal is to create a facility that contributes to the local community through dialogue with local residents and cooperation with the government, while maintaining safe and secure operations.

Kenji Yamagata, Factory Manager

Ube Cement Factory

Location: 1978-2 Kogushi, Ube City, Yamaguchi Prefecture
Start of operations: 1923
No. of employees: 172
Main products: Cement, perlite



The Ube Cement Factory functions as a manufacturing and shipping base for cement and limestone products produced in the Ube and Isa regions. At the same time, through the hard work and collaboration of our employees, we are striving to make this factory a production base for specialty cement to meet various customer needs. We are contributing to the development of a low-carbon society by actively using waste plastic chips and biomass-based energy in our manufacturing processes while aggressively reducing energy consumption. In addition, we constantly work to maintain an open and clean cement factory by enthusiastically encouraging local residents to tour the facilities.

Michio Maruoka, Factory Manager

Isa Cement Factory

Location: 4768 Isa, Isa-cho, Mine City, Yamaguchi Prefecture
Start of operations: 1948
No. of employees: 148
Main products: Cement, limestone



Located in Mine City, home of Akiyoshidai Quasi-National Park—famous for its karstic (limestone) topography—Isa Cement Factory has one of the largest cement manufacturing and limestone mining operations in Japan. Recognizing the importance of maintaining smooth communications with the local community, we located our factory and mine close to the local community. We seek to become an "eco factory trusted by the community" by paying the utmost attention to environmental protection, while participating in various local events and operating factory tours.

Mamoru Matsuoka, Factory Manager

Kanda Cement Factory

Location: 7 Nagahama-machi, Kanda-cho, Miyako-gun, Fukuoka Prefecture
Start of operations: 1964
No. of employees: 70
Main products: Cement



As part of our efforts to be environmentally friendly, we operate a facility within our main factory that processes extremely difficult-to-treat waste products. In fiscal 2011, we began accepting automobile shredder residue (ASR), a material that is steadily being processed. Rooted in a mutually supportive coexistence with the local community, we will improve our presence in the cement industry while pooling employee expertise to take on the challenge of increasing the amount of waste products we process.

Yasuhiro Kihara, Factory Manager

Okinoyama Coal Center

Location: 1980-29 Okinoyama, Kogushi, Ube City, Yamaguchi Prefecture
Start of operations: 1980
No. of employees: 34
Main products: Storage and distribution of coal and petroleum coke



Although it started out in the coal mining business, today the Okinoyama Coal Center no longer engages in these operations. The Center activities now focus on other coal-related businesses as operating Japan's largest fuel coal import transshipment station, which provides a stable supply of coal, an important energy source for Japan. Aiming to maintain the trust of the local community, we are working in unison with employees and partner companies in the areas of health and safety, environmental preservation, and process safety and disaster prevention.

Hideomi Hirakoba, Center Manager

Ube Film, Ltd.

Location: 1020 Onoda, Sanyo-Onoda City, Yamaguchi Prefecture
Start of operations: 1964
No. of employees: 277
Main products: Wrapping film for home use, air bubble cushioning, functional films, wrapping film for commercial use



We are grateful for your continuing patronage of our people- and environment-friendly film products. We continuously strive to improve our operations by providing safe, environment-friendly products and services that meet the demands of our stakeholders as well as by reducing our impact on the environment. At the same time, we are working together to create comfortable working conditions while contributing to society and the local community.

Hideyo Morita, President

Ems-Ube, Ltd.

Location: 1978-96 Kogushi, Ube City, Yamaguchi Prefecture
Start of operations: 1992
No. of employees: 22
Main products: Lauro lactam, caprolactam, ammonium sulfate



Ems-Ube is the joint company of Swiss-based EMS-CHEMIE Holding AG and Ube Industries, Ltd. Our office and facilities are located within the premises of the Ube Chemical Factory. We are Asia's sole manufacturer of lauro lactam, the raw material used in nylon 12 resin. With the goal of living and prospering together with nearby residents, all employees have worked diligently along with those at the Ube Chemical Factory to improve quality-, environment- and safety-related activities while contributing to the development of the community. We will continue these initiatives with the aim of making an even greater contribution to the local community in the years ahead.

Etsuo Matsunaga, President

Ube Ammonia Industry, Ltd.

Location: 2575 Fujimagari, Ube City, Yamaguchi Prefecture
Start of operations: 1972
No. of employees: 96
Main products: Ammonia



We are the only company in Japan that produces ammonia from petroleum coke, or what is called "crude oil residue." Conversely, we focus specifically on environmental preservation since this method of producing ammonia has a relatively high impact on the environment. For example, due to our efforts to recycle the significant amount of slag emitted from the production process and accept waste from other industries, we have achieved a 99.5% recycling rate. We are committed to improving the environment through the promotion of a variety of initiatives.

Noboru Yoshifuji, President

UBE-MC Hydrogen Peroxide, Ltd.

Location: 2575-78 Fujimagari, Ube City, Yamaguchi Prefecture
Start of operations: 1992
No. of employees: 35
Main products: Hydrogen peroxide



Despite being a very clean chemical in environmental terms, Hydrogen peroxide is considered a hazardous material. As part of our CSR activities, we take appropriate measures, particularly concerning the safe handling and transport of this substance in accordance with relevant regulations. I am proud to say that we have maintained a "zero accident" record since commencing operations more than 20 years ago.

Shuji Yamamoto, President

Reference: Please refer to p. 38 for environmental impact data by factory

Ube-Nitto Kasei Co., Ltd.

| | |
|--|---|
| Gifu Factory | Fukushima Factory |
| Location: 2-1-1 Yabuta-Nishi, Gifu City, Gifu Prefecture | Location: 1-10 Shiojima, Fukuhara, Fukuyama-cho, Kooriyama City, Fukushima Prefecture |
| Start of operations: 1966 | Start of operations: 1966 |
| No. of employees: 193 | No. of employees: 54 |
| Main products: Material for optical communication cables, high-purity silica particles, flexible copper-clad laminate, FRP products | Main products: Conjugated fiber for hygienic materials, high-strength polypropylene fiber, reinforcement fiber for concrete, material for optical communication cables |



Ube-Nitto Kasei Co., Ltd. is actively promoting product quality and safety, environmental protection and health- and safety-related activities at its Gifu and Fukushima factories based on ISO9001-, ISO14001- and OHSAS18001-certified management systems. In fiscal 2011, the Gifu Factory participated in the Gifu Energy Conservation Challenge Business Contest, winning a special award in the factory category. We continue to promote energy conservation, waste reduction and the recycling of natural resources in order to be a company that helps preserve the global environment.

Shunichiro Maniwa, President

Meiwa Plastic Industries, Ltd.

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| Location: 1988-20 Kogushi, Ube City, Yamaguchi Prefecture |
| Start of operations: 1946 |
| No. of employees: 146 |
| Main products: Phenol type industrial resins, polyimide resin |



Based on its ISO 14001-certified management systems, Meiwa Plastic Industries, Ltd. proactively practices environmental and occupational health and safety management. We are contributing to the preservation of the global environment by developing and producing environment-friendly non-halogen/non-heavy metal and flame-retardant phenyl resins used as semiconductor sealants. In striving to live and prosper together with the local community, we are lending our support to the Yamaguchi Junior Soccer Tournament, the Ube Ekiden Relay Race and businesses related to the National Sports Festival in Yamaguchi.

Masaaki Niigawa, President

Ube Material Industries, Ltd.

| | |
|--|--|
| Ube Factory | Mine Factory |
| Location: 1985 Kogushi, Ube City, Yamaguchi Prefecture | Location: 4641-1 Isa-Cho-Isa, Mine City, Yamaguchi Prefecture |
| Start of operations: 1948 | Start of operations: 1941 |
| No. of employees: 284 | No. of employees: 144 |
| Main products: Magnesia clinker, other raw materials for refractory, magnesium-related chemical industry products, calcium-related chemical industry products | Main products: Calcia, other ceramic products |

| |
|--|
| Chiba Factory |
| Location: 8-2 Goi-Minami-Kaigan, Ichihara City, Chiba Prefecture |
| Start of operations: 1974 |
| No. of employees: 102 |
| Main products: Calcia, other ceramic products, calcium-related chemical industry products |



We believe that providing environment-friendly products, preserving the environment and contributing to society are important issues that should be integrated into our business activities. Based on this concept, we volunteer in coastal cleanup activities and work to deepen our interactions with local communities by enthusiastically participating in a variety of local events, including the Ube Festival. At the same time, we give back to society through sports, primarily by holding youth soccer tournaments and lend our support to the Kusunoki Country Marathon.

Kenichi Abe, President

Ube Board Co., Ltd.

| | |
|---|--|
| Ube Factory | Fuji Factory |
| Location: 1988-1 Okinoyama, Kogushi, Ube City, Yamaguchi Prefecture | Location: 704-65 Hamazoe, Gokanjima, Fuji City, Shizuoka Prefecture |
| Start of operations: 1950 | Start of operations: 1967 |
| No. of employees: 66 | No. of employees: 17 |
| Main products: Exterior materials (cement siding board, slate), interior materials | Main products: OA floors |



As a company that manufactures and sells construction-related products, we promote the effective use of industrial waste while undertaking operations based on the theme of "being people- and environment-friendly." We will help to realize environmentally friendly lifestyles through proactive efforts to preserve the local environment. In addition, we will assist in recovery efforts in the aftermath of the unprecedented natural disaster that occurred on March 11 as we continue to provide comfort, safety and security for everyone.

Nobuhiro Kataoka, President

Ube Machinery Corporation, Ltd.

| |
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| Location: 1980 Okinoyama, Kogushi, Ube City, Yamaguchi Prefecture |
| Start of operations: 1914 |
| No. of employees: 675 |
| Main products: Die-casting machines, injection molding machines, extrusion presses, crushing machine, ceramic machine, transportation equipment, water screen equipment, bridge members, floodgates, steel structures |



In fiscal 2011, we commenced the development and sale of new types of highly functional, energy- and space-saving die-casting machines, electric injection molding machines and extrusion presses. In addition, we are delivering wood biomass conveyance and storage equipment to power utilities as well as low-noise, dust-free air floating conveyors to domestic and overseas power companies and steel manufacturers. We will continue to work to gain the trust and meet the expectations of customers, focusing our efforts on preserving the environment and reducing related burdens. At the same time, we will provide products and services that satisfy customers worldwide.

Tokuhisa Okada, President

Fukushima, Ltd.

| |
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| Location: 9-80 Mikawa-kitamachi, Fukushima City, Fukushima Prefecture |
| Start of operations: 1953 |
| No. of employees: 236 |
| Main products: Ship-deck mounted machinery, grab buckets |



Applying ISO14001 management certification acquired in 1998 (Nippon Kaiji Kyokai No. 1), we aim to make the Fukushima factory a model "low-carbon factory." We have made it our mission to develop along with, and contribute to, the Fukushima area. In 2008, we received a gold medal from the area chamber of commerce in recognition of our contribution to the local community through cleanup, beautification and other initiatives. Regarding the environment and safety, we expanded our involvement in the STAR Movement. In particular, we promoted improvements in product quality and safety Groupwide.

Yoshinori Tateishi, President

Ube Steel Co., Ltd.

| |
|---|
| Location: 1978-19 Okinoyama, Kogushi, Ube City, Yamaguchi Prefecture |
| Start of operations: 1989 |
| No. of employees: 233 |
| Main products: Billets, castings |



Because metal is a scarce natural resource in Japan, we mainly use scrap metal in our production of billets and castings. Using a process that is the same as that for metals, we melt down and treat industrial waste materials produced in the local community, including waste plastic and medical waste. Such actions are contributing to the formation of a recycling society and the achievement of zero emissions. In the area of energy reduction, we are working to decrease CO₂ emissions produced by our facilities and operations. In addition, we aim to be a company that actively engages in meaningful communication both internally and externally.

Motofumi Ishii, President

Thailand

| | |
|--|--|
| UBE Chemicals (Asia) Public Co., Ltd. | Thai Synthetic Rubbers Co., Ltd. |
| Location: Rayong, Thailand | Location: Rayong, Thailand |
| Start of operations: 1997 | Start of operations: 1998 |
| No. of employees: 476 | No. of employees: 92 |
| Main products: Nylon 6 resin, nylon compound, caprolactam, ammonium sulfate | Main products: Butadiene rubber |



Located in Thailand's largest industrial zone, we place importance on coexistence with the local community and environment. In One Tambon (village) One Product (OTOP) Project promoted by Thai government, our R&D center—UBE Technical Center Asia (UTCA) make social contribution through knowledge transfers, by advising community on how to improve its unique local products. We were also awarded by Thai government for our commitment to CSR activities. We will continue to strive to enhance safe, clean, and efficient production.

Charunya Phichitkul, CEO

Spain

| | |
|---|--|
| Ube Corporation Europe, S.A./Ube Chemical Europe, S.A. | Ube Engineering Plastics, S.A. |
| Location: Castellon, Spain | Location: Castellon, Spain (adjoining UCE) |
| Start of operations: 1967 | Start of operations: 2004 |
| No. of employees: 291 | No. of employees: 40 |
| Main products: Caprolactam, ammonium sulfate and liquid fertilizers, polycarbonatediols, 1,5-pentanediol, 1,6-hexanediol | Main products: Nylon 6 resin, copolymerized nylon |



In fiscal 2011, we made further improvements to quality and safety. We engaged in various initiatives, including moving forward with the EU's REACH registration process, reducing CO₂ and sulfur emissions and conserving water. In addition, we achieved zero lost-time accidents owing to ongoing awareness-raising efforts and preventive training. We began providing direct services to South American customers through a sales company we established in Brazil in June 2010. Looking ahead, our R&D focus will be on the electrolytes used in secondary batteries, fine chemicals and new polyamide uses.

Ricardo Lopez, CEO

Third-Party Verification and Opinion

In June and July 2011, UBE received third-party verification of its CSR Report from the Responsible Care Verification Center. UBE annually receives verification of the trustworthiness of its CSR Report, and it aims to further improve the quality and content of future CSR Reports by reflecting the feedback the Center provides in its verification questionnaire and written opinion regarding the verification results.



Michio Takeshita
President & Representative Director
Ube Industries, Ltd.

UBE Group CSR Report 2011 Third-Party Verification—Written Opinion

July 7, 2011

Saburo Nakata
Chief Director
Responsible Care Verification Center
Japan Chemical Industry Association

Objectives of Verification

The Responsible Care Verification Center verified the *UBE Group CSR Report 2011* (hereinafter, "the CSR Report"), created by Ube Industries, Ltd., by providing its opinion regarding the following items in its capacity as an expert in the chemical industry:

- 1) Rationality and accuracy of the method used to calculate and tabulate the performance indicators (numerical data)
- 2) Accuracy of the information (other than numerical data) provided in the CSR Report
- 3) Performance of Responsible Care (RC) activities
- 4) Characteristics of the CSR Report

Verification Procedures

- The Center staff visited the head office of Ube Industries, Ltd. and asked questions to verify the rationale of the method the Company used to compile numerical data reported by each of its sites (offices and plants) and to check the accuracy of information provided in the CSR Report. Employees in charge of relevant business operations and those in charge of creating the CSR Report answered the questions of the Center staff and made presentations and explanations covering the documentation used.
- The Center staff also visited the Ube Chemical Factory and asked questions to verify the rationale of the method the sites employed to calculate the numerical data reported to the head office and the accuracy of the numerical data and other information provided in the CSR Report. Factory employees in charge of relevant business operations answered the questions of the Center staff and presented and made presentations and explanations covering the documentation used. The Center staff also checked the consistency of the items used to verify the material evidence submitted.
- The Center used its sampling method to verify the numerical data and other information contained in the CSR Report.

Opinions

- 1) Rationale of the method used to calculate and tabulate the performance indicators and accuracy of the numerical data
 - Both the head office and the Ube Chemical Factory calculated and tabulated the performance indicators in a rational manner. According to the results of the verification survey, performance-related numerical data was calculated and tabulated in an accurate manner due primarily to the adoption of a Greenhouse Gas (GHG) management system.
- 2) Accuracy of information contained in the CSR Report
 - The information published in the CSR Report was accurate. The Center pointed out that some of the expressions used in the draft CSR Report were not appropriate or easy to understand, and corrections were subsequently made. As a result, with respect to the final CSR Report, there were no such serious problems.
- 3) Performance of the Responsible Care (RC) activities
 - The Center commends the UBE Group's CO₂ reduction measures, which constitute part of its greenhouse gas reduction efforts (in particular, the effective use of waste as an alternative thermal energy fuel source at its cement factories), and the success of its voluntary measures to decrease chemical substance emissions.
 - The Center recognizes the Group's activation of its BCP immediately following, and responses to, the Great East Japan Earthquake on March 11.
 - In the area of safety-related measures, the Center expects greater efforts by the Group to improve initiatives related to labor accidents and disasters at facilities, especially the elimination of major accidents.
 - The Center expects the Group to improve the level of its RC measures by integrating and improving the efficiency of its environment and safety as well as RC management.
- 4) Characteristics of the CSR Report
 - The Center has positively evaluated the Thai UBE Group's efforts to maintain the UBE Group's CSR approach based on the corporate philosophy and core CSR concept, "living and prospering together." The Center also recognizes the UBE Group's efforts listed in the Special Feature section to use LCA evaluations to determine the amount of CO₂ emissions released by UBE products and, in turn, help prevent global warming.
 - The Center commends the Group's innovative efforts, wherever possible when introducing products, to clarify the role its socially beneficial products play in the chemical industry, which may be difficult for consumers to discern. In fiscal 2012, the Center is looking forward to the Group introducing an even greater degree of innovation that will make the roles of its products even easier to understand.

Third-Party Expert Comments

The UBE Group welcomes expert comments on its CSR Report to enhance objectivity and identify new CSR challenges. We intend to reflect these opinions in future reports and take them into consideration when promoting UBE Group CSR activities.

Anticipating Strengthened Response to Global Environmental Issues and Steady Efforts in CSR Activities

Junko Nagata

Associate Professor, Graduate School for Creative Cities, Osaka City University

I began my reading with the section “The UBE Group’s Response to the Disaster.”

A company responds to the demands of society through not only its business but its CSR activities. Therefore, its CSR activities draw the close attention of society. Despite the short preparation time it was given to publish a report on the event, the UBE Group was able to present details of its responses to the earthquake. It was a timely disclosure of information.

The UBE Group is focused on the expansion of environment-friendly businesses, and it is going to be particularly important to develop such products as environmentally friendly coating materials, optical-related materials and fine chemicals. Accordingly, I would expect the Group to position these businesses as its main targets as it responds to crises in the aftermath of the disaster and would like to see the Group report on its progress in a systematic manner.

In addition, I assume that the Group can be expected to make further efforts in preserving the environment and maintaining safety.

In its enforcement of its responsible care activities, I can see that rather than add complications or steps to daily work process, the UBE Group’s management structure focuses simply on making daily work process more environmentally friendly. In addition, in its business operations the Group consistently discloses the necessary figures and standards, for which it is highly evaluated. I expect the Group will continue to work toward operational improvement.

In this fiscal year’s report, my attention was also caught by, “living and prospering together” a management philosophy promoted by UBE’s founder Sukesaku Watanabe. This philosophy has value for the entire Group and it should be passed on to future generations. I believe that the Group’s development of the workplace and the relationships it maintains with local communities in Thailand, have been achieved thanks to adherence to the spirit of this philosophy.

The next thing that attracted my attention was “Efforts toward Developing a Comfortable Workplace” in the Human Rights and Labor section. Employees are important stakeholders in a company’s CSR activities while also participating and implementing them. Therefore, in order to undertake CSR activities effectively, it is necessary to facilitate employee understanding and develop a comfortable work environment.

In addition to a CSR dialogue held last year, the UBE Group held roundtable meetings to facilitate in-house communication and mutual understanding among employees. Such activities help the Group to realize favorable results in CSR activities, so I expect the Group to continue holding them. In the development of a comfortable work environment, the messages from the various employees explained how the Group undertook detailed initiatives encompassing the further promotion of work-life balance and healthcare-related events, and their results. In this light, I would expect favorable results from the three-year plan based on the Law for Measures to Support the Development of the Next-Generation.

Finally, the design of the CSR Report was much easier to read than in the past as it used a universal font in addition to color universal design. I was impressed by the Group’s concern for all its stakeholders as demonstrated by its ensuring the readability of not only the content but the design of the publication.

I have been monitoring the UBE Group’s activities on an ongoing basis, and I have come to feel that a certain steadfastness is one of the Group’s unique qualities. I look forward to seeing its continued efforts.

Junko Nagata

Specialist in public management (including CSR). Her wide-ranging activities include serving as a member of advisory and study panels of national and local governments as well as delivering lectures at leadership training seminars held by the Kansai Association of Corporate Executives and supporting many corporations as a CSR strategy advisor. Ms. Nagata has served as a special advisor to Toru Hashimoto, governor of Osaka Prefecture, since 2008. Her official website: <http://junko-nagata.com/>



Response to the Third-Party Comments

We very much appreciate Ms. Nagata’s valuable insights on this, her fourth occasion to contribute third-party comments. In preparing this report, we asked for her opinions and reflected them while editing its first half. In the section UBE Group’s Response to the Disaster, we carefully sorted out what should be reported in light of the role this report plays, the timing of its issue and readers’ thoughts. As a business entity, the UBE Group will continue to strive toward the earliest possible recovery of the entire country from the damage of the earthquake.

The UBE Group’s management philosophy of “living and prospering together” has long underpinned the Group’s CSR management as it advances toward “global coexistence” in parallel with changes in the times and the environment. As introduced in the Special Feature section, this philosophy is steadily gaining ground within the Group’s major overseas production bases in Thailand and Spain. The catchphrase “Focusing on Harmonious Coexistence with All Stakeholders” on the cover is strongly reflective of the time-honored principle “companies and local communities develop in parallel,” and, in line with these concepts, we are contributing

to society through business activities as reported all through this report.

In management, communication is crucial. And we believe that deepening mutual understanding with stakeholders can help ensure balanced management. In the previous fiscal year, we started to hold roundtable meetings involving the president, corporate officers and factory employees. In principle, we plan to hold such meetings on a monthly basis with the hope of developing a comfortable workplace.

Finally, we appreciate Ms. Nagata’s support of the design. This report improved readability for various people by adopting the Color Universal Design and universal font in addition to a unique design that represents the UBE Group.

As suggested, the UBE Group will strive to achieve “global coexistence” by expanding environment-friendly businesses and product lineups as well as by taking thoroughly addressing global environmental issues. Simultaneously, we will make steady efforts to rectify any problems in operations.

Akinori Furukawa

Director in Charge of Group CSR, Vice-President and Executive Officer

UBE INDUSTRIES, LTD.

Seavans North Bldg, 1-2-1, Shibaura, Minato-ku, Tokyo
105-8449, Japan
Phone: +81-3-5419-6118
Fax: +81-3-5419-6237
URL: <http://www.ube.co.jp>

Person responsible for editing and publishing this report:
Akinori Furukawa, Director in Charge of Group CSR, Vice-President and Executive Officer, CSR Department



The UBE DOG was created in March 1997 as a character for the UBE Group's TV commercials.



From left:
A certification acquired from the Color Universal Design Organization for the Company's development of a user-oriented design system that considers people with various types of color vision to allow information to be accurately conveyed to as many individuals as possible

The "Heartfelt Mark" logo affects that this report was published by a company that proactively promotes the employment of persons with disabilities

Cover: Employees who work at nylon plant in Thai UBE Group

