



# SR REPORT 2011

# The Four Businesses That Underpin the

The methyl methacrylate (MMA) business is a key business for the Mitsubishi Rayon Group, and the Group boasts the leading share of the global MMA monomer market. Also, as a polymer chemicals maker, we are developing the acrylonitrile (AN) business.

Currently, the Group is promoting strategies to achieve sustainable growth in four business blocs: the Chemicals & Plastics business, the Carbon Fibers & Composite Materials business, the Aqua business and the Fiber business.

Chemicals & Plastics

By establishing a powerful MMA chain worldwide through the full-fledged operation of plants in Japan, South Korea, China, Thailand, Europe and the United States, the Mitsubishi Rayon Group aims to expand its share of the global MMA monomer market from current 38% to 45%.

The Mitsubishi Rayon Group is the world's largest and only MMA maker employing all three major manufacturing methods. The Group is operating a global MMA chain, which encompasses everything from monomers to polymers. The Group is also promoting businesses related to AN and its derivatives, which are used as raw materials in the production of acrylic fibers and acrylonitrile-butadiene-styrene (ABS) resin. Carbon Fibers & Composite Materials

The Mitsubishi Rayon Group offers an expansive selection of products, ranging from AN, precursors and polyacrylonitrile (PAN) based carbon fibers to intermediate materials and molded products. Leveraging its unrivalled carbon fiber value chain, the Group is expanding operations in the three major markets of the United States, Europe and Asia.

Demand for carbon fibers is expected to grow further for such applications as industrial materials, automobiles, aircrafts and wind power generation facilities. Targeting these fields, the Mitsubishi Rayon Group is developing, manufacturing and supplying products that help reduce the weight and improve the fuel efficiency of finished products. In June 2011, the Group launched the PYROFIL P330 series of carbon fibers (high-performance large tow) suitable for such applications.

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# Mitsubishi Rayon Group's Sustainable Strategies

Leveraging the polymer technologies that it has nurtured through synthetic fiber and acrylic resin operations, the Group is now fostering new businesses on a worldwide scale in such areas as hollow-fiber membrane filters and carbon fibers. Meanwhile, as a new member of the Mitsubishi Chemical Holdings Corporation (MCHC) Group, the Mitsubishi Rayon Group is working to quickly realize the synergies yielded by the integration with the MCHC Group in operational, R&D and other areas.

In China and other promising markets for water-related businesses, the Mitsubishi Rayon Group is promoting wide-ranging operations, covering everything from the sale of membrane products and equipment based on MBR technology to the

The Group offers world-leading total solutions for water environments, from industrial water to wastewater treatment. Our agua business is centered on MBR-based water reclamation operations and "CLEANSUI" water purifier operations, which use hollow-fiber membrane filters. We are aggressively expanding these operations internationally.

MBR: Membrane bioreactor

Aqua

Business

wemorane bioreactor Our MBR system of water treatment method involves purification using activated sludge (microorganisms) and solid-liquid separation using hollow-fiber membrane filters. Compared with conventional activated sludge methods, our MBR system saves space and enables more advanced water treatment.

Fiber Business

With functional acrylics and acetates as its core products, the Mitsubishi Rayon Group is accelerating the launch of new functional products developed through a unique product development processes in emerging markets in Europe, the Middle East, India and China.

As a synthetic fiber maker, the Group is taking advantage of its proprietary polymer design and spinning technologies to develop various fiber products. The applications of these fibers span a wide range, from apparel to industrial materials. We are also tackling the development of eco-friendly fibers. Always on the leading edge, we are undertaking fiber development to meet the needs of the times.

- Time Frame
- Scope
- Publication Schedule

Fiscal 2010 (From April 1, 2010 to March 31, 2011) Mitsubishi Rayon Group

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(The Chinese version in March 2012)

#### Message from the President



**CSR Management: Key Points** 

Implement "New Design APTSIS 15" medium-term management plan Energize personnel through active 2 Energize p business expansion Harness MCHC Group Synergy to achieve KAITEKI 4 Optimize portfolio management **Reinforce manufacturing capabilities** 5 and build stronger platform for global management

Committed to achieving "Best Quality" that contributes to better lives on a sustainable basis

October 2011

Masanao Kambara Representative Director and President 鎌原 正直





Firstly, I would like to offer my sincere condolences to all those affected by the Great East Japan Earthquake of March 2011. Several Mitsubishi Rayon Group plants were damaged, but thanks to our business partners' support and our employees' tireless efforts to restore operations, we were quickly able to resume production. Mitsubishi Rayon Group has participated in various initiatives to aid recovery in affected areas, including corporate donations to the recovery fund established by our parent company, Mitsubishi Chemical Holdings Corporation (MCHC), corporate donations to our own Group fund, donations by Group employees, and support for voluntary employee activities in affected areas coordinated by MCHC.

The interruption to the output of companies and factories affected by this unprecedented disaster had a huge economic impact in Japan and around the world. Mitsubishi Rayon Group will enhance emergency management systems to ensure we can fulfill our responsibility to supply products, including those from our world-leading methyl methacrylate (MMA) business and our environmentally important Carbon Fiber & Composite Materials and Aqua water treatment systems businesses.

In 1991 Mitsubishi Rayon Group embraced the management philosophy "Best Quality for a Better Life" (committed to the creation of unique, high-quality products and services that contribute to society as a whole) as the basis for all its business activities. The concept of Best Quality goes beyond product quality to encompass the quality of our management resources, especially our employees; the quality of our interaction with all stakeholders, including business partners, customers, and local communities; and quality of life and the environment for the world's people. Driven by this management philosophy, our CSR policies aim to achieve Best Quality in all aspects of our business activities to help create better lives on a sustainable basis.

Trust forms the foundation for all our efforts to achieve Best Quality: trust in the eyes of society, trust with our business partners, customers and local communities, trust among Group companies, trust among employees, and trust between individuals.

To further enhance our CSR activities, in February 2011 we revised our existing CSR structure comprising a CSR Committee, Corporate Ethics Committee, Safety, Environment and Quality Assurance Committee, Risk Management Committee and Information Security Committee. The CSR Committee was replaced by CSR management meetings chaired by the president, which act as the overall decision-making body for all CSR activities. At the same time, we established the *KAITEKI* Promotion Group in the Corporate Planning Division to serve as an overarching CSR secretariat.

#### Implement "New Design APTSIS 15" medium-term management plan

In conjunction with the MCHC Group's formulation of the APTSIS 15 five-year management plan, Mitsubishi Rayon Group has drawn up a new medium-term management plan for fiscal years 2011-2015 entitled New Design APTSIS 15.

This plan extends the fundamental thinking behind New Design MRC, which set out a vision for the Group in 2018, to take account of subsequent changes in economic cir-

cumstances and the business environment. While maintaining the New Design MRC targets of achieving sales of 1 trillion yen and operating income of 100 billion yen around 2018, the new plan aims to leverage our unique identity and strengths to maximize synergy by pursuing higher levels of harmony with the MCHC Group so that we can create a corporate group consisting of top-ranking business units in global markets.

#### New Design APTSIS 15

#### **Basic Goals**

- To create a corporate group consisting of top-ranking business units in global markets
- To achieve sales of 1 trillion yen and operating income of 100 billion yen around 2018

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#### **Basic Policy**

Energize personnel

Develop and make effective use of personnel equipped for globalization, and exchange personnel with the MCHC Group

Achieve KAITEKI\*

Pursue activities aimed at achieving KAITEKI as envisioned by the MCHC Group \*The word *kaiteki* means "comfort" in Japanese, and the MCHC Group has developed the KAITEKI concept to describe a style of management that enhances economic value, advances technology management, and achieves sustainability for people, society and the planet

Optimize portfolio management

Focus management resources on three businesses: MMA business, Carbon Fiber & Composite Materials business, and Aqua business

Enhance development of unique specialty materials in conjunction with MCHC efforts to create such products

Reinforce manufacturing capabilities

Promote production innovation and Total Productive Maintenance & Management (TPM\*) activities, and boost production technology capabilities

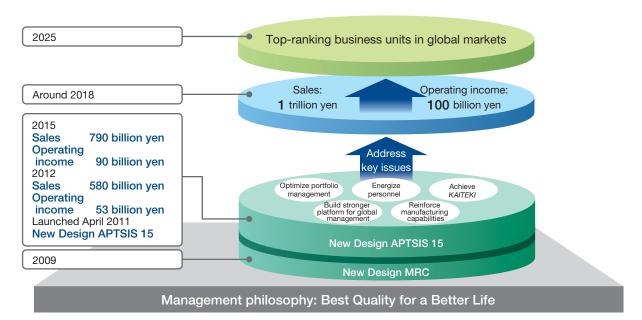
\*Activities aimed at raising production efficiency by eliminating potential losses in production systems

Build stronger platform for global management

Harness synergies within the MCHC Group to enhance infrastructure functions and R&D, and make effective use of M&A and business alliances

Quantitative Targets		
		(billion yen)
	2012	2015
Sales	580	790
Operating income	53	90





Making effective use of people is essential to sustainable corporate growth and a fundamental reason for the existence of the Mitsubishi Rayon Group. In an initiative that I call my "mobile president's office," I frequently visit production and research facilities to gain a real sense of on-site conditions and employees' views through direct dialogue, and to give staff a better understanding of management thinking. I believe that promoting understanding and building trust is fundamental to energizing personnel.

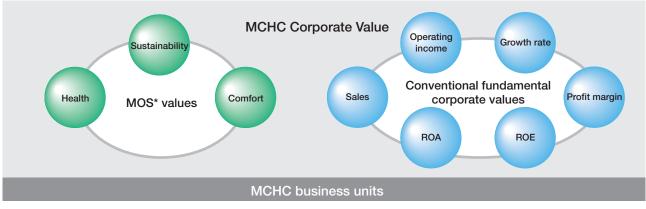
To manage in ways that energize personnel, we need to build a strong management base and continually expand our business activities. The integration of Lucite International Group Limited in May 2009 turned Mitsubishi Rayon Group into a global enterprise that makes approximately 70% of its sales outside Japan and has diverse employees of different nationalities. We now need to overcome differences of language and culture to build strong relationships of trust while respecting the past achievements of others. We must create an environment where personnel exchanges provide stimulus for all involved, employees maintain their passion for work and sense of mission, and we can develop new skills and exercise them to the utmost. Accepting employees' various differences, we will establish systems to embrace this diversity in ways that can maximize Group vitality, and build a stronger platform for global CSR activities.

### Harness MCHC Group Synergy to achieve KAITEKI

Mitsubishi Rayon Group has now been a member of the MCHC Group for about 18 months. In addition to water treatment business reorganization and engineering business integration with Mitsubishi Chemical Group, we have implemented initiatives in many departments to achieve greater harmony and synergy with the MCHC Group.

The MCHC Group has established a vision for 2025 of running its business in a way that delivers *KAITEKI* by putting the infinite potential of "Good Chemistry" to work. Based on three indexes monitoring sustainability, health, and comfort, the MCHC Group aims to realize its *KAITEKI* concept of achieving sustainability for people, society, and the planet. Although the Mitsubishi Rayon Group management philosophy of "Best Quality for a Better Life" is expressed in different words, the goal is the same.

Based on this philosophy and the *KAITEKI* concept of sustainability, in order to achieve New Design APTSIS 15 and *KAITEKI* goals we will pursue greater synergy with the MCHC Group in a broad range of fields including business activities and various existing initiatives such as efforts to enhance competitiveness (JK activities), production innovation, TPM activities, and small group activities.



\*MOS: Management of SUSTAINABILITY

Mitsubishi Rayon Group has made its businesses more competitive by selecting and focusing on key areas. Now, amid major changes in the economic and business environment, we aim to further optimize portfolio management and to contribute to the creation of a sustainable society by utilizing Group strengths to strategically enhance and expand our business units.

#### Focus management resources to enhance and expand three key businesses: MMA business, Carbon Fiber & Composite Materials business, and Aqua business

We will focus management resources on our core MMA business and on our Carbon Fiber & Composite Materials and Aqua businesses, which also offer growth prospects.

Acrylic resins are used in a wide range of fields including building materials, automotive applications, and materials for IT devices, and global demand is projected to continue expanding. We will respond to this healthy demand by boosting MMA monomer production capacity in countries including Thailand, Korea, and China while also actively enhancing our ability to develop new technologies and applications in order to cement our top global position in the industry.

Valued for its strength and lightness, carbon fiber is a cutting-edge material used in a broad range of applications in fields as diverse as sports and leisure equipment, industrial machinery, civil engineering, construction, and the aerospace industry. Our Carbon Fiber & Composite Materials business boasts a long product chain encompassing everything from raw materials to intermediate materials and molded finished goods, and we will leverage this strength to respond to growing global demand for carbon fiber, especially in industrial fields including wind turbine blades and automotive applications.



Our Aqua business is crucial to sustainable societies, since it facilitates re-use of limited water resources. Placing our main focus on Asia and especially China, where substantial growth can be expected, we will partner with overseas engineering companies to develop total solutions in the water environment field.

# Contribute to comfortable lifestyles through growth drivers that achieve *KAITEKI*

APTSIS 15 aims to achieve *KAITEKI* through development and production of comfort products that make life more pleasant. Mitsubishi Rayon Group will achieve *KAITEKI* by contributing to comfortable lifestyles, positioning products that offer convenience, reassurance, and peace of mind as growth drivers.

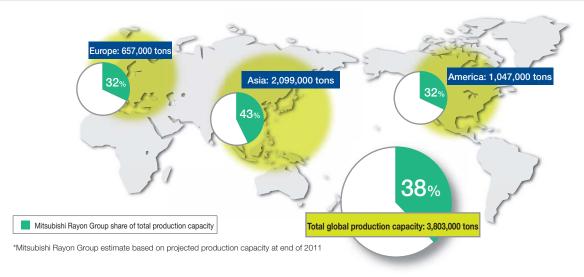
#### Develop unique specialty materials in partnership with the MCHC Group

Through technical networking and the sharing and utilization of common base technologies within the MCHC Group, Mitsubishi Rayon Group will leverage its strengths to focus on development of unique specialty materials and boost its competitive advantage.

#### Leading Products Contributing to Comfortable Lifestyles

- 1. Controlling light and color: acrylic sheets used in light guide plates and mobile phone front panels
- 2. Teaming strength with lightness: carbon fiber & composite materials
- 3. Offering hygiene and purity: aqua products
- 4. Providing protection and isolation: functional chemical products such as coating materials

#### MMA Monomer Production Capacity by Region



## Reinforce manufacturing capability and build stronger platform for global management

Manufacturing capability is a key source of competitiveness, and this capacity is becoming increasingly globalized as market needs evolve, raw material supply relationships change, companies restructure, and emerging economies develop. Manufacturers aiming for sustainable growth must go beyond improving existing production processes and boosting efficiency to re-think fundamental processes and technologies relating to production. Building on the many skills we have fostered through R&D, facility design, and production technologies, we will review production techniques and facilities to reinforce our manufacturing capability.

The production innovation and TPM activities under way in all our production centers strive to meet the needs of an increasingly diverse customer base by making high quality products at low cost through initiatives such as eliminating losses in manufacturing processes. We will also strengthen partnerships with the MCHC Group and leverage group-wide synergies to optimize basic research and accelerate development with a view to supplying products that achieve *KAITEKI*.

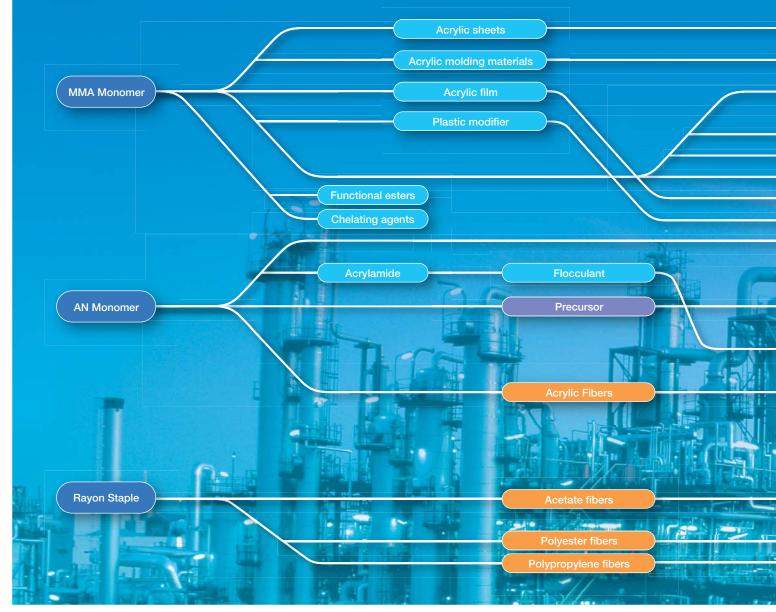
If the Mitsubishi Rayon Group is to accomplish sustainable growth as a global enterprise, it needs to create an effective and efficient value chain for production, sales and administration, covering every step from product development to sale. By harnessing synergies within the MCHC Group and making full use of Group management resources, we will enhance infrastructure functions and R&D capabilities while pursuing M&A and business alliances.

Practicing our management philosophy of "Best Quality for a Better Life" and achieving the objectives of the New Design APTSIS 15 medium-term management plan, will enable us to achieve *KAITEKI* in line with MCHC Group aims and contribute to better lives on a sustainable basis.



# **Unceasing Technological Innovation**

With a product portfolio that has expanded from rayon staple to include acrylic resins and synthetic fibers, the Mitsubishi Rayon Group employs unique technologies to create leading-edge materials that will serve as the core drivers of its next-generation businesses. These include hollow-fiber membrane filters used worldwide in water reclamation systems to help solve water shortage issues and carbon fibers that significantly reduce products' life cycle CO<sub>2</sub> emissions and environmental burden.



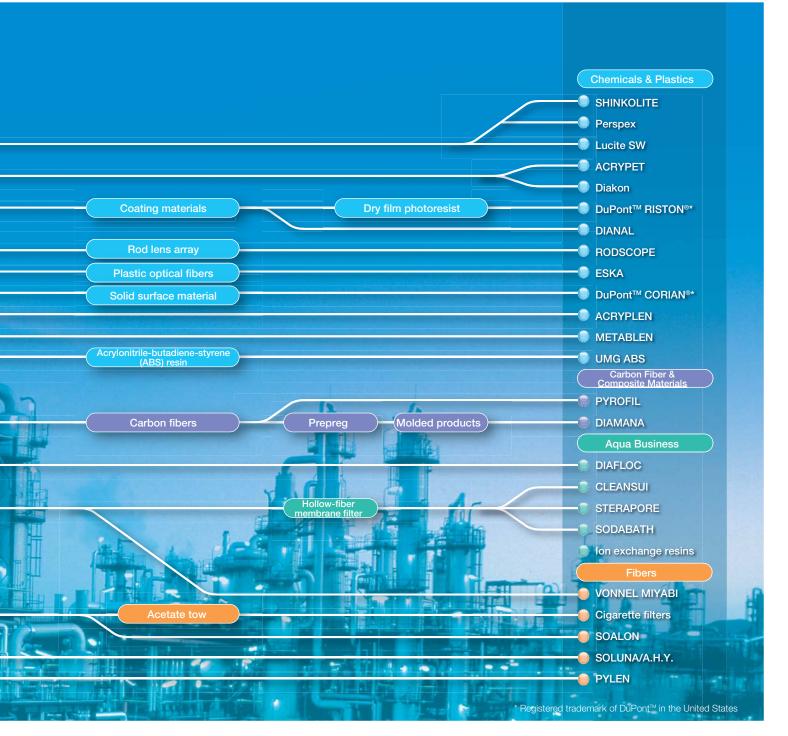


Inrough the combination of chemicals and plastics with advanced technologies, we continue to create a diverse range of new materials and products that will support the sound development of society.



Stronger than steel and lighter than aluminum, carbon fibers are in the global spotlight as materials with wide-ranging applications, including aerospace, industrial materials and sporting goods.

# Leads to an Affluent Future





Reflecting the application of long-nurtured core technologies and unceasing technological innovation, our hollow-fiber membrane filters and membrane bioreactor (MBR) systems are effective in solving various water-related and other environmental problems.



With the ability to flexibly adjust the product portfolio in line with the needs of the times, our fiber business continues to offer sensational products based on unique technologies.



#### **Business Overview**

With production bases worldwide, the Mitsubishi Rayon Group is the world's largest methyl methacrylate (MMA) monomer maker and the only one employing all three major manufacturing methods—the acetone cyanohydrin (ACH), C4 direct oxidation and Alpha technology processes. The Group operates global business through a comprehensive MMA chain, covering everything from monomers to polymers. Our acrylonitrile (AN) business supplies raw materials to our acrylic fiber and acrylonitrile-butadiene-styrene (ABS) businesses. Our AN derivative business focuses on high-performance catalysts, flocculants and paper strengthening agents.

#### Fiscal 2010 Results and Future Developments

In fiscal 2010, global MMA monomer and polymer demand

soared, particularly for LED TV applications, and the Group's production and sales bases in Japan, South Korea, China, Thailand, Europe and the United States operated at full capacity. MMA monomers accommodate wide-ranging applications, from IT equipment to building materials. As global MMA monomer demand is expected to rise further, the Group will bolster capacity. Regarding its AN-related businesses, the Group will work to improve cost-competitiveness and product functionality, thereby expanding sales.

#### Toward Achieving the Best Quality for a Better Life

Promoting technological innovation at its MMA monomer and polymer production facilities, the Group aims to enhance product quality and productivity.

# Realizing KAITEKI with This!

a *KAITEKI* Material Acrylic resin-based light guide panels are a core component of LED light sources, which are in high demand for use in LCD TVs and displays, lighting and signboards. As a safe, mercury-free material, acrylic resin contributes to energy savings in these products and helps realize *KAITEKI*.

Undertaking the Comprehensive Production of Raw and Composite Materials, Capturing Demand in the Area of New Energy



Precursor (acrylic fiber used exclusively for carbon fibers)



Carbon fiber tows consist of bundled carbon fiber filaments. Their applications include carbon fiber cloth and UD prepreg, (unidirectional resin-impregnated material).

-

on fiber tow

Carbon fiber cloth



Carbon fiber tows are woven into plain, twill or sateen cloth for various applications, such as windmill blades, high-pressure gas tanks, golf shafts and tennis rackets.

Prepreg is carbon fiber impregnated with resin. To achieve excellent functionality, we create an optimal combination of carbon fiber with skillfully designed matrix resin.

Carbon Fiber & Composite Materials

#### **Business Overview**

The Mitsubishi Rayon Group's products range from "PYROFIL" carbon fiber to intermediate materials and molded products incorporating carbon fiber. Leveraging its unrivalled carbon fiber value chain and expanding into the U.S., European and Asian markets, the Group is working to establish a world-lead-ing product portfolio.

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#### Fiscal 2010 Results and Future Developments

In April 2010, Mitsubishi Rayon and Germany-based SGL Technologies GmbH ("SGL") jointly established MRC-SGL Precursor Co., Ltd. ("MSP") to manufacture and sell precursor, a raw material of carbon fibers, principally to SGL Automotive Carbon Fibers LLC, a SGL—BMW Group joint venture.

At Mitsubishi Rayon's Otake Production Center a new plant

began manufacturing "PYROFIL P330" series high-performance large tow carbon fibers in June 2011. With excellent processability suitable for large molded products and superior strength and elasticity, the series is expected to see demand expand in such areas as industrial materials and environmental applications.

#### Toward Achieving the Best Quality for a Better Life

Together with the MCHC Group, the MRC Group will strengthen competitiveness in intermediate materials and processing technologies. Advancing the development of next-generation carbon fibers and composite materials for aircraft, automobile and other applications, we will contribute to the realization of a sustainable society.



Light and Strong Light and strong to enable improved fuel efficiency, carbon fiber is seeing expanding global demand. Recently, demand has grown in new energy fields, including windmills. Leveraging its vertically integrated carbon fiber value chain and global capabilities, the Group is meeting needs worldwide.

Contributing to Water Reclamation in Growth Markets through Our MBR Systems



#### **Business Overview**

The Mitsubishi Rayon Group promotes its aqua business globally, providing world-class total solutions for water environment issues. We promote mainstay water reclamation operations employing our membrane bioreactor (MBR) systems and offer such flagship products as "STERAPORE" hollow-fiber membrane filters and "CLEANSUI" water purifiers.

#### Fiscal 2010 Results and Future Developments

The new Aqua Business Bloc was established in July 2010, and we are collaborating with Group companies to develop comprehensive water reclamation operations.

Verification tests for energy-saving MBR technology undertaken in cooperation with Singapore's Public Utilities Board (PUB) led to the decision to adopt our MBR system membrane filters at the country's largest water reclamation plant, which plans to start operations in 2011.

In China, an alliance with Beijing Origin Water Technology Co., Ltd., which handles large MBR projects, is accelerating our water reclamation business. Also, working with the MCHC Group, we are expanding the use of our water reclamation systems in the petrochemical market.

#### Toward Achieving the Best Quality for a Better Life

The booming Asian region is experiencing serious water-related and other environmental problems. Our technologies, products and expertise—used in industrial water and wastewater treatment, regional water purification and reclamation projects in the region—are supporting economic growth and environmental protection.



Supporting Clean Water Environments Our water treatment technologies—hollow-fiber membrane filters, ion exchange resins, flocculants and mineral oil absorption agents, etc.—improve the entire water cycle, from drinking and industrial water treatment to recycling, contributing to health, hygiene and comfort and helping to realize *KAITEKI*.



#### **Business Profile**

The Mitsubishi Rayon Group leverages its proprietary polymer design and spinning technologies to develop materials that meet the needs of the times. With a wide range of applications, the Group's offerings include acrylics with superior functionality and versatility and acetates based on biomass materials for high-fashion, highly functional fabrics and polypropylene fibers that pose a relatively low environmental burden and are easy to recycle.

#### Fiscal 2010 Achievements and Future Initiatives

In fiscal 2010, the Group identified "COREBRID THERMOCATCH" and "MIYABI" as strategic materials in the "VONNEL" acrylic staple fiber category, expanding their production to meet consumer demand worldwide. Cultivating "MIYABI" series sales channels in China, Europe and the United States, we are introducing chitosan-modified "MIYABI FRESH" from fiscal 2011.

In acetates, the Group has expanded sales of "SOALON" textiles and strengthened "VENTCOOL" man-made fiber sales. In fiscal 2011, we plan to deploy these innovative products through new channels in Japan and overseas.

In "PYLEN" polypropylene fiber, we plan to release carpet materials that contain biomass polyethylene in 2011.

#### Toward Achieving the Best Quality for a Better Life

Through its fiber business providing unique functional products in such areas as apparel, interior and industrial materials, Mitsubishi Rayon is helping people around the world lead comfortable lives and achieve a welcoming society.



Products Our fiber business is focusing on the development of functional products that enable consumers to enjoy *KAITEKI*. In fiscal 2010, joining in Japan's energy-saving campaign after the Great East Japan Earthquake, Mitsubishi Rayon promoted the COOLBIZ TECH project by providing its VENTCOOL products for textile applications.

We undertake business activities with the aim of realizing our corporate philosophy, "Best Quality for a Better Life," as we strive to maintain sustainable growth together with society.

	Corporate Behavior Charter
	1. We will provide safe and high-quality products and services for customers.
Best Quality for Customers	2. We will deal fairly and build a strong relationship of trust with customers.
	3. We will grow together with customers through innovation.
	4. We will actively work to ensure safety and to conserve the environment.
	5. We will comply with laws and regulations and disclose and manage information appropriately.
Best Quality for Society and the Environment	
	6. We will respect different cultures as we work to enhance our relationship with stakeholders and society.
	7. We will maintain a passion, a sense of purpose and the courage to develop and improve our capabilities and work.
Best Quality Behaviours	8. We will respect individuals and build a healthy and positive work environment.
	9. We will work and co-operate with partners around the world and make best use of our abilities

The Mitsubishi Rayon Group has formulated the Corporate Behavior Charter. The Charter has a range of themes, including growing together with customers through technological innovation, ensuring workplace safety and environmental friendliness, legal compliance, encouraging ethical awareness, respect for cultural diversity, self-improvement, more complete human resource development and CSR. Based on these ideas, we will realize our corporate philosophy, "Best Quality for a Better Life," and maintain sustainable growth together with society. These goals will be accomplished by adhering to standards of behavior that are in line with the reorganized Business Code of Conduct Based upon Corporate Ethics.

#### Business Code of Conduct Based upon Corporate Ethics

1-1.	We will provide safe and high-quality products and services for customers.
2-1.	We will develop proper business relationships based upon mutual trust with all our business partners, including customers, vendors, and sub- contractors.
2-2.	Entertainment and the giving of gifts should be limited to a level consistent with sound business judgment. We will not engage in the giving or receiving of entertainment or gifts for unethical purposes.
3-1.	We will listen carefully and sincerely to our customers' opinions and seek to make use of those opinions in the development, manufacture and sale of our products and services.
3-2.	If problems arise with respect to our products or services, we will take prompt and appropriate measures.
4-1.	Safety will be given a high priority in all our business activities. We will strive to ensure the safety of products and services, including the safe conduct of manufacturing operations and the proper control of chemicals.
4-2.	We will strive to sustain the global environment, including biodiversity, by conserving resources and energy and reducing and reusing waste. We will work to develop new technologies as well as products and services that contribute to the reduction of the burden on the environment.
5-1.	We will comply with international rules; the laws and regulations of the countries where we conduct business activities; and our corporate regulations.
5-2.	We will maintain a high sense of ethics and sound business judgment and not engage in conduct that could be suspected of illegality.
5-3.	We will comply with the Anti-monopoly Law and other relevant laws and regulations. We will engage in fair and free competition and not engage in cartels, bid rigging, or abuse of dominant bargaining position.
5-4.	We will comply with the Foreign Exchange and Foreign Trade Act and other relevant laws and regulations applicable in the relevant jurisdictions and perform proper export control. We will not export products or technologies that may obstruct international peace and security.
5-5.	We will not infringe upon others' intellectual property rights such as trade secrets, patents, copyrights, or technical know-how.
5-6.	We will control the personal information of employees, business partners, and other third parties in a strict and proper manner in accordance with applicable laws and regulations, including the Act on the Protection of Personal Information.
5-7.	We will control confidential information in a proper manner and prevent insider trading.
5-8.	We will not to engage in illegal political donations or payoffs and will take firm action against anti-social behavior and organizations acting against the public interest.
5-9.	We will maintain transparency in our corporate activities by disclosing in a timely and appropriate fashion corporate information, including financial data and business activity reports.
6-1.	We will strive to respect the cultures and customs of the various countries and regions where we conduct business and to coexist with society.
6-2.	We will strive to value relationships with and to maintain and develop appropriate and friendly relations with our stakeholders, including customers, consumers, business partners, employees, shareholders, investors and local communities
7-1.	We will maintain a passion for creating value that contributes to society and will engage in our work with high ideals and a sense of purpose.
7-2.	We will be attentive to changes in the environment from a global perspective and consistently endeavor to identify issues and make reforms based on that awareness.
7-3.	We will endeavor to improve our capabilities based on our awareness of our roles and will boldly take on challenges and work toward goals.
8-1.	We will respect human rights, dignity, and individuality.
8-2.	We will not discriminate against anyone based on ethnicity, nationality, gender, ideology, philosophical principle, belief, disability, etc.
8-3.	We will use and nurture our diverse human resources, and provide opportunities for our employees to develop and utilize their abilities.
8-4.	We will strive to create a workplace culture and environment where communication and teamwork are valued.
8-5.	We will encourage well-balanced work lives for our employees by respecting their work-life balance.
8-6.	We will not accept unwelcome sexual advances in the workplace, or verbal or physical conduct of a sexual nature, or any other words or actions that violate the dignity or value of another.
8-7.	We will not accept forced labor and child labor of any form.
8-8.	We will respect the activities of the labor union and strive to build good relations between the workforce and management.
8-9.	We will strive to become a company where employees can have pride in their work through the contribution it makes to society.
9-1.	We will endeavour to work and cooperate with partners around the world and make best use of our abilities

## **Corporate Behavior Charter**

#### **Best Quality for Customers**

## Committed to the creation of unique, high-quality products and services that contribute to society as a whole

That we provide safe, high-quality products and services that take the customer into consideration goes without saying. The Mitsubishi Rayon Group fully understands the necessity of offering superior products and finely tuned services. Furthermore, we believe that building relationships of trust with customers and growing in tandem with them enables us to provide the best quality products.

> We will provide safe and highquality products and services for customers.

> > p17

We will deal fairly and build a strong relationship of trust with customers.

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We will grow together with customers through innovation.

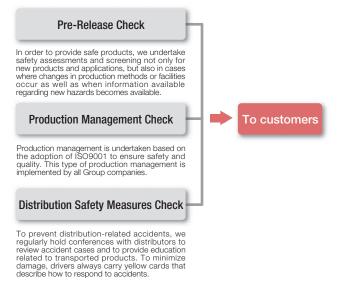
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rporate Behavior Charter / Business Code of Conduct Based upon Corporate Ethic

# We will provide safe and

#### Providing Safe Products That Have Been Checked at Each Stage

The Mitsubishi Rayon Group maintains the following system of checks at each stage—pre-release, production management and distribution safety measures—to deliver safe products to customers.



#### **Ensuring Safety through Communication**

We constantly strive to ensure product safety in order to deliver best quality from the customers' perspective, and, to support this goal, we work to maintain active communications with customers. By obtaining customer understanding of product safety, environmental friendliness and functionality, the Mitsubishi Rayon Group has bolstered frameworks capable of responding to all opinions and demand regarding its products.

# Providing Technical Services and Information to Customers

We comply with the differing legal regulations of the countries in which we do business while disclosing product material specifications to meet customer needs. Moreover, we provide such services for fiber processors as preparing technical manuals, dispatching technicians and developing quality management databases.

# Exchanging Information with Customers: Open Laboratory

To increase customer awareness of GENOPAL DNA Chips, Yokohama Corporate Research Laboratories' open laboratory creates a venue where information can be exchanged with customers. This open laboratory is capable of introducing uses for and demonstrating GENOPAL DNA Chips and instrument systems. The facility also provides us with opportunities to learn about the opinions and needs of customers regarding these products.

# high-quality products and services for customers.

#### **Customer Hotline**

Mitsubishi Rayon established a toll-free customer hotline for "CLEANSUI" home-use water purifiers. This hotline responds to customer opinions, questions and complaints.

# Utilizing Customer Feedback for Product Improvement

We actively participate in exhibitions in order to facilitate direct dialogue with numerous customers. Utilizing customer feedback about product safety and quality enhancement helps us increase satisfaction with our products and services.

#### Product Safety and Quality Management Based on Laws and Voluntary Regulations

#### Proceeding with REACH\* Registration

The Group completed the registration of six high-production substances by the 2010 deadline and is currently preparing to register other substances by the 2013 deadline. Since 2010, with regard to the REACH regulation, we have been promoting the sharing of information with Mitsubishi Chemical. Also, we are advancing preparations for REACH registration through intensive collaboration with Lucite International as the MRC Group's "Only Representative" in Europe.

\*REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is an EU regulation to protect human health and the environment

# Ensuring GHS<sup>1</sup> Compliance in Individual Countries

Although the Group has completed the incorporation of Japanese GHS requirements into its MSDS,<sup>2</sup> many East Asian countries, such as China, South Korea and Taiwan, have formulated their own GHS regulations as part of their establishment of effective legal frameworks. While establishing GHS information access routes, we will appropriately address GHS policies being formulated in various countries.

 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 MSDS: Material Safety Data Sheet

#### Promoting the Global Product Strategy (GPS)

GPS is a system in which manufacturers themselves intensively evaluate and publicize the levels of toxicity and dangers associated with certain chemical substances. Under the direction of the ICCA,\* we participate in working groups sponsored by the Japan Chemical Industry Association and assist in revising related guidelines. We have taken steps to draft a GPS safety evaluation report in cooperation with Mitsubishi Chemical. We are scheduled to complete evaluations of 70% of the chemical substances we produce by 2015.

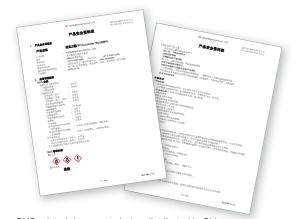
\*ICCA: International Council of Chemical Associations

#### Promoting Green Procurement Surveys

The Group began conducting green procurement surveys in fiscal 2005 to fully comprehend and manage substances that impact the environment (including raw materials and other procured items) and have the potential to pose a health hazard. We undertook these surveys during fiscal 2010. Survey responses from suppliers have been closely examined and necessary measures are being implemented. In fiscal 2011, we will continue to promote the appropriate management of chemical substances.

#### Commencing Treatments to Eliminate Polychlorinated Biphenyl (PCB)

In order to comply with the Act on Special Measures against PCB Waste established in 2001, the Mitsubishi Rayon Group adopted a policy of removing all equipment containing PCB by 2015. The treatment of equipment containing high concentrations of PCB has been centralized under the Japan Environmental Safety Corporation (JESCO). Although the Group was scheduled to start systematically treating items containing PCB, this implementation was significantly delayed by JESCO's slow commencement of operations and other difficulties. We finally began to treat equipment with high concentrations of PCB at certain production centers in fiscal 2010. Having decided on a method for treating equipment with low concentrations.



GHS-related documents being distributed in China

# 2 We will deal fairly and build a strong relationship of trust with customers.

Business Code of Conduct Based upon Corporate Ethics

- 2-1. We will develop proper business relationships based upon mutual trust with all our business partners, including customers, vendors and sub-contractors.
- **2-2.** Entertainment and the giving of gifts should be limited to a level consistent with sound business judgment. We will not engage in the giving or receiving of entertainment or gifts for unethical purposes.

# Aiming to Contribute to *KAITEKI* through the Full-Fledged Promotion of CSR Procurement

The Mitsubishi Rayon Group promotes CSR procurement in pursuit of best quality through the provision of ecofriendly products based on the following five policies:

- 1. Complying with laws and social standards
- 2. Securing the ecological soundness and safety of products purchased
- 3. Respecting human rights and improving working conditions
- 4. Developing partnerships
- 5. Requesting business partners' compliance

Over three-year periods, we survey suppliers using questionnaires. Fiscal 2010 was the final year of the first survey.

#### CSR Procurement Questionnaire Survey Overview

Implementation period: December 1, 2008–January 31, 2011 Survey target: Suppliers in top 90% in terms of monetary value and transactions, total of 228 compa-

- nies (a total of 595 suppliers during the three-year period (98% in monetary value and 91% in transactions)
- Survey method: Suppliers are asked to complete a questionnaire after being given an explanation of the CSR Procurement Policy

CSR	Procurement	Questionnaire

Requirements		Outline of measures S		
	1	Compliance with laws applied to business activities including the Company Law, Antitrust Law, Subcontract Law, intellectual property rights regulations, labor regulations, traffic regulations and environmental regulations	1, 2, 3	
1. Compliance with laws	2	Have no questionable relationships with politicians and governments, and have not come under the influence of, or have developed close ties with, antisocial forces and groups	1, 2, 3	
and social standards	3	Value stakeholders connected to business activities, including customers, consumers, local communities, shareholders, investors and business partners while working to maintain and expand appropriate and effective relationships with them	1, 2, 3	
	4	Appropriately manage access, use and disclosure of personal and customer information	1, 2, 3	
2. Provide products and services that secure	(5)	Promote the provision of services that consider ecological soundness and safety	1, 2, 3	
ecological soundness and safety	6	Work to ensure safety and reduce environmental load during business activities and in overall services	1, 2, 3	
3. Measures to improve and augment respect	7	In the spirit of the Global Compact, endorse internationally accepted rules regarding human rights, labor standards, the environment and corruption prevention to the degree in which these items affect Mitsubishi Rayon and each Group company	1, 2, 3	
for human rights and working conditions	8	Value employee rights, personalities and individuality, ensure a safe and comfortable workplace, and assist in career and skills development	1, 2, 3	
4. Satisfactory quality and prices, reliable	9	Constantly undertake R&D into new products and services, and provide socially beneficial products and services to customers	1, 2, 3	
delivery periods, and timely information provision	10	Deliver within the designated period only fair-priced raw materials of satisfactory quality while providing useful information services related to products	1, 2, 3	

\* Self-rating standard regarding the status of initiatives

1: Will take action to thoroughly familiarize oneself about this

2: Actions to date remain insufficient

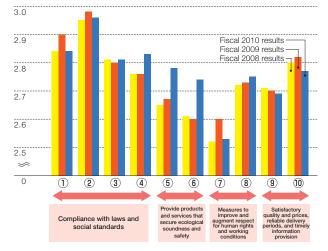
3: Initiatives almost completely implemented

#### Overview of CSR Procurement Self-Evaluation Questionnaire Results

For the second consecutive year, the survey reveals that compliance is high and efforts are being made to avoid questionable political relationships, the influence of or ties to antisocial forces and groups. The Group's suppliers generally tend to have high self-evaluations as well as while results for questions 7 and 9 of the survey (see preceding table), remained low.

Aiming to further disseminate CSR procurement, MRC will continue to inform suppliers of its CSR activities. Simultaneously, we will promote improvement among suppliers with low self-evaluations (see questions (6), (7) and (9)). Furthermore, we will conduct inspections for harmful substances in products purchased based on the green procurement list to ensure increasingly eco-friendly purchasing. We will also contribute to *KAITEKI* by adopting the (Management of SUSTAINABILITY (MOS) index.

 $^{\ast}$  MOS index: An index based on three requirements of sustainability, health and comfort



#### MOS Index

	Contribution to reducing environmental impact
Sustainability Index	Implementation of energy conservation in response to the issue regarding energy depletion
,	Contribution to the reduction of environmental burden through procurement
	Contribution to the treatment of diseases
Health Index	Contribution to the enhancement of QOL
TIEditiTIIIUEX	Contribution to the prevention and early detection of diseases
	Development and manufacturing of products for more comfortable lifestyles
Comfort Index	Improvement of stakeholder satisfaction
	Endeavor to become a more reliable company

# **3** We will grow together with customers through innovation.

#### Business Code of Conduct Based upon Corporate Ethics

**3-1.** We will listen carefully and sincerely to our customers' opinions and seek to make use of those opinions in the development, manufacture and sale of our products and services.

3-2. If problems arise with respect to our products or services, we will take prompt and appropriate measures.

# The MRC Innovation Bridge Connects the Mitsubishi Rayon Group to Its Customers

At its head office, the Mitsubishi Rayon Group regularly holds the MRC Innovation Bridge exhibition of innovative materials and technologies, introducing newly developed products in a wide array of fields to sales representatives savvy to the latest market trends. This pooling of development and marketing ideas generates initiatives for commercialization. In fiscal 2010, the exhibition was held in May and the enthusiasm of participants was evident in the 26 exhibits, which included panels illustrating new development projects and samples of products under development. Many sales and other personnel from the head office came to view the exhibits, vigorously exchanging information with research staff. The Group believes that its business growth comes from developing and working together with customers. In such a collaborative manner, we will continue to offer new technologies and ideas to our customers.



Research staff providing explanations

## **Corporate Behavior Charter**

Best Quality for Society and the Environment

## Committed to the creation of unique, high-quality products and services that contribute to society as a whole

We pursue best quality by actively undertaking safety assurance and environmental conservation initiatives. Such efforts are promoted in accordance with the Mitsubishi Rayon Group's Business Code of Conduct Based upon Corporate Ethics. We promise to provide best quality with regard to society and the environment by complying with the law, implementing transparent operations and coexisting harmoniously with society.

> We will actively work to ensure safety and to conserve the environment.

p21

We will comply with laws and regulations and disclose and manage information appropriately. p25

We will respect different cultures as we work to enhance our relationship with stakeholders and society. p27



4-1.	Safety will be given a high priority in all our business activities. We will strive to ensure the safety of products and services, including the safe conduct of manufacturing operations and the proper control of chemicals.
4-2.	We will strive to sustain the global environment, including biodiversity, by conserving resources and energy and reducing and reusing waste. We will work to develop new technologies as well as products and services that contribute to the reduction of the burden on the environment.

#### **Safety Activities**

The Mitsubishi Rayon Group Undertakes Safety and Disaster Prevention Initiatives in Accordance with Its Medium-Term Management Plan.

#### **Overview of Activities in Fiscal 2010**

Fiscal 2010 was the final year of the Group's medium-term management plan, which was launched in fiscal 2008. In line with this plan, the Group promoted safety and disaster prevention initiatives while improving these initiatives. These initiatives centered on three goals set out in the plan: (1) eliminate injuries that result in work absence and eliminate serious accidents; (2) provide support for Group companies; and (3) implement policies related to external commitments.

#### 1. Eliminate injuries that result in work absence and eliminate serious accidents

- Activities focusing on domestic production centers
- (1) Safety conventions, at which managers directly emphasize the importance of safety (held every July at four production centers)
- (2) Simultaneous workplace patrols by supervisors undertaken daily between 1:00 p.m. and 1:30 p.m.
- (3) Safety events for staying mindful of past serious accidents in each division
- (4) Safety reinforcement month (December)

#### Activities undertaken that include Group companies

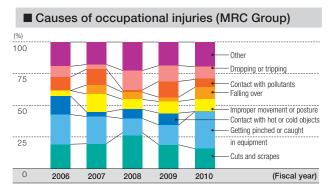
- (1) Training for production managers and integrated training for safety personnel of production centers and Group companies in Japan
- (2) Safety assessment of new equipment and renewed equipment (expansion of the scope of assessment)
- (3) Improvements in reporting and issues cited in the general audit
- (4) Audits of Group companies based in China through the Safe, Environmental and Quality Products and Compliance Promotion Office at Mitsubishi Rayon (Shanghai) Co., Ltd.

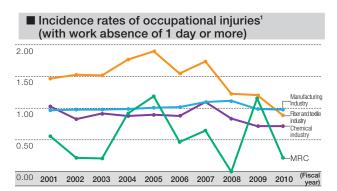
# Best Quality for Society and the Environment

# to ensure safety and to conserve the environment.

#### Occupational injuries

Both the total numbers of occupational injuries and injuries that resulted in work absence Groupwide remain on par with those in fiscal 2009. We will work to further reduce both figures.

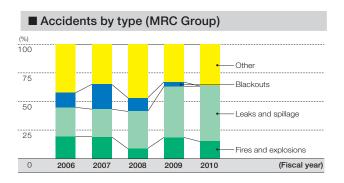




 Incidence rate of occupational injuries refers to the number of individuals who suffered occupational injuries resulting in work absence per one million working hours.

#### Accidents

The total number of accidents Groupwide was on a downward trend over the past several years. However, in fiscal 2010, the number increased slightly, owing mainly to an increase in the number of leak- and spillage-related accidents. Although we have not yet experienced any major accidents due to early detection and response initiatives, we will promote further countermeasures by concentrating on preventive management to stop the occurrence of accidents.



#### 2. Providing support for Group companies

As in fiscal 2009, two training sessions covering legal revisions, safety management systems and Mitsubishi Rayon's safety activities were held for safety/environment personnel in fiscal 2010 at domestic Group manufacturing companies. In China, Mitsubishi Rayon (Shanghai) Co., Ltd.'s Safety, Environmental and Quality Products and Compliance Promotion Office implemented various measures that included strengthening safety management systems, audits and training.

# 3. Implementing policies related to external commitments

The Group has set voluntary targets regarding the reduction of chemical emissions, the reduction of the external landfill volume of waste and the prevention of global warming and is promoting activities aimed at achieving these targets. Please see page 23 for details of initiatives for reducing environmental burdens and page 24 for details of initiatives for preventing global warming.

#### Fiscal 2011 Action Plan

#### 1. Aim to eliminate injuries that result in work absence and eliminate serious accidents

In fiscal 2011, the first year of the Group's seventh medium-term management plan, we will promote more effective activities based on our previous activities.

#### Better prepare ourselves for large-scale natural disasters

We will create scenarios for countermeasures for possible earthquakes and other disaster and implement necessary drills.

#### 3. Strive to eradicate accidents

We will review and revise activities to prevent leak and spillage accidents, the number of which have not decreased, and prioritize preventive management.

#### Three Principles of Safety in Japanese, English and Chinese

- 決めたことは守る
- 安全優先の行動をとる
- 管理者は安全確保の責務を果たす
- Three Principles of Safety
- Honor your commitments
- Make safety your top priority in your conduct
- Managers shall be responsible for securing safety
- 关于安全的基本三原则
- 遵守已定事项
- 采取安全优先的行动
- 管理者履行确保安全的职责

Note: Results of environment-, safety- and quality-related audits are listed on the Mitsubishi Rayon Group website.

#### Initiatives for Reducing Environmental Burdens

#### **Chemical Substance Management**

In fiscal 2010, the MRC Group promoted activities in line with its Fourth Chemical Substance Reduction Plan (target year: fiscal 2010). Also, to further reduce its environmental burden, the Group has formulated its Fifth Chemical Substance Reduction Plan (target year: fiscal 2015).

#### The Group's Fourth Chemical Substance Reduction Plan (Target Year: Fiscal 2010)

#### [Targets]

#### 1. Reduction of total emissions

- (1) All MRC and MRC Group companies operating as of the fiscal 2003 year-end: fiscal 2010 total emission target for MRC-PRTR substances<sup>1</sup> (490 chemicals) shall be 50% of fiscal 2000 emissions (reference year)
- (2) All MRC Group companies that began operations after fiscal 2004: fiscal 2010 total emission target for MRC-PRTR substances<sup>1</sup> (490 chemicals) shall be 75% of fiscal 2007 emissions (reference year)

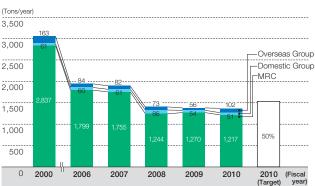
# 2. Reduction of emissions of individual managed substances

Reductions will be made in the specific substance groups detailed below:

- (1) Sixteen volatile organic compound (VOC) substances, including priority substances as defined under the Air Pollution Control Law, which account for most of MRC's atmospheric emission volume
- (2) The five substances that MRC Group emits the most

#### [Results]

Having achieved reductions of individual managed substances almost as planned, the Group met its target for total emissions. Despite its failure to meet its reduction target for atmospheric emissions of methyl methacrylate (MMA), the Group achieved reduction targets for other individual managed substances.



# Total chemical emissions (4th Plan, Target 1. (1))

#### The Group's Fifth Chemical Substance Reduction Plan (Target Year: Fiscal 2015)

#### [New Targets]

#### Reduction of total emissions

By the target year, total emissions of MRC-PRTR substances<sup>1</sup> (442 substances) by the MRC Group (excluding Lucite International) shall be reduced to 70% of the emissions recorded in fiscal 2005 (reference year).

 MRC-PRTR substances: 480 substances subject to the PRTR research conducted by the Japan Chemical Industry Association (JCIA) on its corporate members (including 354 substances subject to legal notification), and dimethylacetamide and other substances subject to NRC in high volumes. In line with changes in substances subject to notification due to revisions of related laws in fiscal 2008, the Fifth Chemical Substance Reduction Plan covers a total of 442 substances, which consist of 433 substances designated by JCIA and nine substances voluntarily designated by Mitsubishi Rayon.

#### Waste Reduction and Recycling

In fiscal 2010, Mitsubishi Rayon promoted activities in line with its External Landfill Volume Reduction Plan (excluding combustion ash from power generation; target year: fiscal 2010). To further reduce its external landfill volume, the Company formulated a Groupwide Zero Emissions Plan with the target year set to fiscal 2015.

#### External Landfill Volume Reduction Plan (Target Year: Fiscal 2010)

#### [Target]

By fiscal 2010, the external landfill volume (excluding combustion ash from power generation) shall be reduced to 20% of the volume recorded in fiscal 1991.

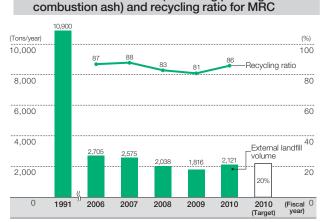
#### [Results]

External landfill volume (excluding combustion ash from power generation): 19% of the volume recorded in fiscal 1991 (outperforming our fiscal 2010 target by about 60 tons)

MRC's total waste generation: 84,000 tons (up 2,000 tons year on year)

External landfill volume (excluding power generation

Recycling ratio: 86%



#### Groupwide Zero Emissions Plan (Target Year: Fiscal 2015)

#### [New Target]

By fiscal 2015, zero emissions shall be achieved throughout the MRC Group (involving each production center and Group company). Data calculation shall include all waste, excluding combustion ash from power generation.

#### Initiatives for Preventing Global Warming

#### Toward a Low-Carbon Society

The MRC Group is undertaking various activities to prevent global warming.  $CO_2$  accounts for the majority of greenhouse gases emitted by the Group. Eighty percent of  $CO_2$  emitted by the Group comes from energy use. Consequently, we are applying our ingenuity in fuel-conversion and resource-saving activities, which are centered on energy conservation.

From fiscal 2011 onward, the Group will launch and promote various energy conservation initiatives and eliminate unnecessary losses of energy, thereby contributing to the prevention of global warming.

#### [Targets]

#### 1. Energy consumption per unit of production

Reduce energy consumption per unit of production by 20% or more compared with fiscal 1990 by fiscal 2012

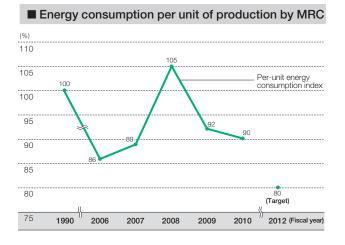
#### 2. CO<sub>2</sub> emissions attributable to energy use

Endeavor to keep average  $CO_2$  emissions attributable to energy use from fiscal 2008 to fiscal 2012 below the level recorded in fiscal 1990

#### [Results]

As a result of promoting energy conservation activities, and thanks to an improvement in our production center utilization, our energy consumption per unit of production in fiscal 2010 improved two percentage points year on year.

In contrast, our  $CO_2$  emissions attributable to energy use increased 60,000 tons year on year to 910,000 tons, despite our emissions reduction efforts, owing to increased production.



\*Energy consumption per unit of production is calculated using the standard product conversion method.

\*Some figures have been revised due to adjustments made to calculation methods in fiscal 2009.

Greenhouse gas emissions (CO<sub>2</sub>-equivalent)



\*MRC 1 indicates the volume of  $\text{CO}_2$  emissions attributable to utility and fuel use at the four production centers in Japan

\*\*MRC 2 indicates the volume of CO<sub>2</sub> emissions attributable to the greenhouse gases that were additionally recognized in the revised Law Concerning the Promotion of the Measures to Cope with Global Warming and the revised Law Concerning the Rational Use of Energy (Energy Saving Law).

#### **Initiatives in Logistics Operations**

The MRC Group has promoted modal shifts, decreasing truck transport and increasing marine and rail transport. The MRC Group became a certified "Eco-Rail Mark" company in April 2010 under a program promoted by the Ministry of Land, Infrastructure, Transport and Tourism. At the same time, the Group's acetate tow for cigarette filters, "DIANAL" acrylic coating material and "ACRYPET" acrylic molding material were certified as products allowed to carry the Eco-Rail Mark. Looking ahead, the Group will continue to promote eco-friendly logistics operations.



CO <sub>2</sub> emissions in logistics (outsourced) (1,000 tons of CO <sub>2</sub> /year)					
Fiscal year	2006	2007	2008	2009	2010
CO2 emissions	17	15	11	11	12

\*The calculation method was changed in fiscal 2006 in compliance with the revised Energy Saving Law.

<ul> <li>Scope of environmental data calculation</li> <li>Only companies whose main area of operations is manufacturing and processing are required to provide combined environment-related data. See (1) through (4) below for the terminology used to distinguish the companies covered by in this report. Visit the website for details about the companies covered and about the data.</li> <li>(1) MRC Group: Companies that come under the following categories (2) to (4)</li> <li>(2) MRC: Mitsubishi Rayon and Group companies operating at Mitsubishi Rayon's production centers</li> <li>(3) Domestic Group: Consolidated subsidiaries in Japan other than those which come under the above category (2)</li> <li>(4) Overseas Group: Consolidated overseas subsidiaries</li> </ul>				
Visit our website at: www.mrc.co.jp/english/csr/				
<ul> <li>CSR&gt;Environment and Safety</li> <li>Management System</li> <li>Overview of Environmental Burdens</li> <li>Reduction in Chemical Substances Emitted</li> <li>Initiatives for Preventing</li> <li>Safety and Disaster Prevention Initiatives</li> <li>Waste Reduction Initiatives</li> <li>Environmental Data and References</li> </ul>				

 Initiatives for Preventing Global Warming

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Best Quality for Society and the Environment

Best Quality Behav

#### Best Quality for Society and the Environment

# We will comply with laws and regulations and disclose and manage information appropriately.

	Business Code of Conduct Based upon Corporate Ethics
5-1.	We will comply with international rules; the laws and regulations of the countries where we conduct business activities; and our corporate regulations.
5-2.	We will maintain a high sense of ethics and sound business judgment and not engage in conduct that could be suspected of illegality.
5-3.	We will comply with the Anti-monopoly Law and other relevant laws and regulations. We will engage in fair and free competition and not engage in cartels, bid rigging, or abuse of dominant bargaining position.
5-4.	We will comply with the Foreign Exchange and Foreign Trade Act and other relevant laws and regulations applicable in the relevant jurisdictions and perform proper export control. We will not export products or technologies that may obstruct international peace and security.
5-5.	We will not infringe upon others' intellectual property rights such as trade secrets, patents, copyrights, or technical know-how.
5-6.	We will control the personal information of employees, business partners, and other third parties in a strict and proper manner in accordance with applicable laws and regulations, including the Act on the Protection of Personal Information.
5-7.	We will control confidential information in a proper manner and prevent insider trading.
5-8.	We will not to engage in illegal political donations or payoffs and will take firm action against antisocial behavior and organizations acting against the public interest.
5-9.	We will maintain transparency in our corporate activities by disclosing in a timely and appropriate fashion corporate information, including financial data and business activity reports.

#### **Corporate Governance**

#### Internal Audits Directly Controlled by the President

Mitsubishi Rayon established the Audit Office to administer internal audits and is enhancing mutual collaboration and operating standards by regularly holding meetings between the president, corporate auditors and accounting auditors.

#### Further Upgrading Internal Control Systems

In fiscal 2010, Mitsubishi Rayon continued to strengthen its risk management system while further upgrading and appropriately operating its internal control systems to ensure reliable financial reporting.

#### Compliance

# Thorough Compliance Education, Training and PR

In fiscal 2010, the Mitsubishi Rayon Group's in-house trainers continued to provide division- and position-specific compliance education and training. In addition, an outside expert was once again invited to hold a seminar presenting basic knowledge on anti-trust legislation as well as related case studies. Also, the Group introduced e-learning and e-testing systems for its compliance program, thereby expanding the scope of employee education and training.

In accordance with the revision of its Business Code of Conduct, the Group has prepared a Business Code of Conduct Handbook and distributed it to all Group employees, including those overseas, helping to further enhance the compliance awareness of all its employees.

#### **Risk Management**

#### Creating Database of Risk Management Activities

The Mitsubishi Rayon Group has been working on risk management by having the Risk Management Committee determine risk management policies and oversee standardized procedures. In the event of an emergency, the Committee will set up a Crisis Task Force to work on extended deterrence and rapid recovery of the damage caused. We conduct business operations in compliance with Risk Management Regulations, which prescribe management policies and methods for handling significant risks related to business execution as well as crisis management response methods for possible crisis situations. In fiscal 2010, we proceeded to unify and standardize risk items, created a database of risk management activities based on a PDCA cycle, "visualized" risk information, shared and streamlined operations, and accumulated related information.

#### Overseas Risk Management

#### 1. Strengthening corporate risk management in China

Mitsubishi Rayon (Shanghai) Co., Ltd. is working to strengthen and promote the development of risk management activities aimed at enhancing business operations and governance capabilities in China. Specifically, Mitsubishi Rayon (Shanghai) plans and implements risk management initiatives.

In fiscal 2010, Mitsubishi Rayon (Shanghai) promoted various initiatives, including standardizing in-house rules and processes to effectively and accurately meet frequent changes in laws, regulations and other related systems; introducing a system aimed at identifying new latent risks; and enhancing the risk awareness of local staff by inviting an outside expert to hold compliance seminars.



Compliance Training Program for staff at Huizhou MMA Co., Ltd. (November 2010)



The 4th China Risk Management Supervisors Meeting (October 2010, at Dalian Rayon Environmental Equipment Co., Ltd.)

The Mitsubishi Rayon Group regularly holds meetings for corporate risk-management supervisors working in China to determine the themes of specific risk management activities and enable the centralized management of said activities. These meetings help the Group to steadily reinforce its corporate risk management in the face of a dynamically changing business environment.

# 2. Enhancing risk management to ensure safe, environment-friendly, high-quality products in China

In fiscal 2010, a meeting of China-based Group companies was held to discuss safety, environmental and quality issues. Group companies handling chemicals and processing operations conducted mutual audits while promoting education for staff in charge of safety and environmental issues. Also, the development of management tools for safety, environmental and quality standards, regulations and agreements for all Group companies in China was promoted, and compliance audits were conducted pursuant to local environmental, health and safety laws and regulations. These activities are helping to bolster risk management in China.



China Safety and Environment Supervisors' Get-Together (December 2010, at Dalian Rayon Environmental Equipment Co., Ltd.)

#### Information Security

The Mitsubishi Rayon Group has been strengthening information security, mainly through activities carried out by the "Information Security Committee" based upon the "Information Security Policy" established by the Group in fiscal 2004. In fiscal 2010, in line with its integration into the MCHC Group, the Mitsubishi Rayon Group worked to reinforce the security environment of its information infrastructure systems. We continue to promote the PDCA cycle in our information security reinforcement activities.

#### Best Quality for Society and the Environment

# We will respect different cultures as we work to enhance our relationship with stakeholders and society.

#### Business Code of Conduct Based upon Corporate Ethics

- 6-1. We will strive to respect the cultures and customs of the various countries and regions where we conduct business and to coexist with society.
- 6-2. We will strive to value relationships with and to maintain and develop appropriate and friendly relations with our stakeholders, including customers, consumers, business partners, employees, shareholders, investors and local communities.

#### **Next-Generation Education Activities**

#### **Cultivating Future Scientists**

The Mitsubishi Rayon Group participates in the young engineer cultivation program organized by the Ministry of Economy, Trade and Industry (METI). Making next-generation education activities an important part of its CSR efforts, the Group aims to contribute to society through the operations of its offices and laboratories. The Group's CSR activities are in accord with METI's next-generation education programs aimed at cultivating future scientists. Consequently, the Yokohama Corporate Research Laboratories enthusiastically participated in this endeavor.

#### Young Engineer Cultivation Program: "What is DNA? What is Biotechnology?"

#### (Implemented in December 2010)

School: Matsudo Municipal Makinohara Junior High School Lesson content: Through DNA extraction experiments, students learn DNA characteristics and function as well as how DNA chips are used in medical and other fields.

Teacher: Second- and third-year researchers from the Yokohama Corporate Research Laboratories



Students deepening their understanding of DNA through experiments

# Assisting Students That Have a Future Role in the Fashion Industry

Since 2007, Mitsubishi Rayon Textile Co., Ltd. and the Educational Foundation, Bunka Gakuen, have held the "SOALON" design contest to provide students with a venue to present fresh ideas for applications for this proprietary triacetate fiber.

The theme of this year's contest was "adult, cute and dressy." Out of roughly 520 entries, 15 were selected through the initial screening process. The final screening in January 2011 involved a fashion show-style presentation, from which three finalists emerged.



Gold medal winner Silver medal winner

Bronze medal winner

#### Internship Program

Mitsubishi Rayon is promoting an internship program mainly for university, graduate school and technical college students, accepting 10 to 30 students each year (fiscal 2010: 28 students). Offering work experience, the Company provides students, including foreigners, with opportunities to think about future careers.

#### **Social Contribution Activities**

#### Social Contribution Activities of Lucite International Group Limited

#### 1. Supporting future engineers

In cooperation with other companies and related industry associations, Lucite International participated in a local project targeting British high school and elementary school students, in which the students created games using model cranes made from "Perspex" acrylic sheets. Through this and other projects, Lucite International helps students envision their future as professional engineers.



Students gaining engineering experience by making "Perspex" cranes

#### 2. Supporting the United Way's welfare project

In the United States, Lucite International employees in Tennessee join in volunteer activities organized by United Way. In 2010, they participated in the Genesis House Project,<sup>1</sup> clearing gardens and a storage room.

1. Genesis House is a refuge for the homeless in Memphis.



Employees who participated in the Genesis House Project

#### 3. Lucite International employees win a volunteer prize

In the UK, employees from Lucite International's Cassel site participated in a cleanup project in Fairy Dell park, efforts for which they were named Northeast Team of the Year in June 2010.



Lucite International members named Northeast Team of the Year

#### Relationships with Investors

#### Attitudes on Information Disclosure

In line with the principle of "ensuring appropriate disclosure of information and proper handling of confidential and personal information," the Group complies with the Corporate Information Disclosure Regulations, established in April 2008. Through its IR activities, the Group discloses accurate information in an appropriate and timely manner, communicating with market players through its website and various documents.

#### Achievements in Fiscal 2010

From fiscal 2010, although Mitsubishi Rayon communicates with analysts and institutional investors as a member of the Mitsubishi Chemical Holdings Corporation (MCHC) Group, its promotion of IR activities remains unchanged. In June 2010, we joined our first MCHC-organized business briefing for media and investors.

In March 2011, analysts and institutional investors were given a plant tour of Huizhou MMA Co., Ltd., an important Chinese base for our MMA business.

#### **Future IR Activities**

With its integration into the MCHC Group, Mitsubishi Rayon was delisted. The Company continues, however, to operate as the flagship of the MCHC Group. Through effective IR as a member of the MCHC Group, Mitsubishi Rayon will communicate with investors, accurately conveying information on its corporate value.

## **Corporate Behavior Charter**

#### **Best Quality Behaviours**

## Committed to the creation of unique, high-quality products and services that contribute to society as a whole

We deliver best quality through the selfmotivated efforts of all our employees, as they strive to realize their full potential. Aiming to create a working environment that enables employees to pursue an active role to the maximum extent possible, the Mitsubishi Rayon Group is promoting a workplace capable of fostering the development of best quality in every individual.

> We will maintain a passion, a sense of purpose and the courage to develop and improve our capabilities and work. p29

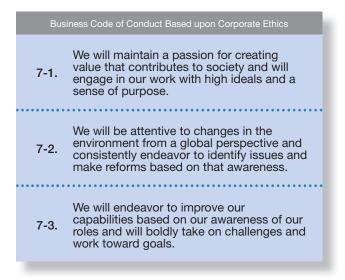
We will respect individuals and build a healthy and positive work environment.

p30

We will work and co-operate with partners around the world and make best use of our abilities.

p32

# 7 We will maintain a passion, and improve our



# Developing Employee and Organizational Capabilities

Knowing that the capabilities of its people and organizations are key to ensuring corporate growth and competitive ability, the Mitsubishi Rayon Group makes human resource recruitment, training and application important management challenges and actively focuses its efforts on these areas. Such actions are based on a management strategy that fully utilizes employee abilities.

#### Supporting Voluntary Skills Development of Employees

The Mitsubishi Rayon Group supports employees' efforts to develop their capabilities and skills by combining daily on-the-job training with other training programs and activities to assist in personal development. The Mitsubishi Rayon Group has adopted human rights education, legal compliance, the thorough enforcement of corporate ethics, and the promotion of safety and environmental management as common themes of the training programs it has designed for new employees and managers. Amid initiatives to aggressively expand overseas, the Group is increasing its efforts to train individuals who can serve globally as managers, based on their understanding of the cultures and systems of the regions where they are assigned.

#### Encouraging Employees to Independently Conceive Their Roles in the Organization

The Mitsubishi Rayon Group provides training to mainly young career employees with the purpose of encouraging them to consider how they can independently contribute to the organization. Looking ahead, we aim to cultivate employees who can think and act for themselves.

Best Quality Behaviours

#### Encouraging a Holistic Awareness of Each Employee's Role in the Company

Prior to promotion to a management position, each employee on a managerial track receives training aimed at raising their awareness of how their work within the organization impacts the Company. Employees are then encouraged to translate this awareness into specific actions. From a teamwork perspective, such training enables employees to become key players capable of motivating others and building creative teams.

# Aiming to Improve Organizational Strength through Workplace Leadership

With the aim of reinforcing organizational capabilities, the



Group training exercises for newly appointed managers

Mitsubishi Rayon Group provides training in such areas as communication skills and leadership to help develop the management capabilities of employees who have been recently appointed to management positions.

# Fostering Career Development for Managers in Their 50s

The Group holds career development seminars that focus on work styles and skill upgrades among career employees in their 50s with a view to encouraging individual employees to create their own career and life plans.

#### Rating Employees Using the COM-PAS Personnel Assessment System

The Group introduced COM-PAS (Communication, Plan, Action & Success) in 2006. COM-PAS is a personnel performance assessment system that stimulates communication within the organization, provides employees with opportunities to establish their targets in accordance with common organizational goals, and accurately rates individuals who succeed in achieving targets. Improving the effectiveness of the system, on annual basis the Group offers manager-focused training to assessors to increase the fairness, persuasiveness and transparency of assessments. The Group believes that this personnel management process by objectives maximizes the capabilities of individual employees and, in turn, helps to realize full human resource development from a systemic perspective.

# **3** We will respect individuals and build a healthy and positive work environment.

#### Business Code of Conduct Based upon Corporate Ethics

	8-1.	We will respect human rights, dignity, and individuality.
	8-2.	We will not discriminate against anyone based on ethnicity, nationality, gender, ideology, philosophical principle, belief, disability, etc.
	8-3.	We will use and nurture our diverse human resources, and provide opportunities for our employees to develop and utilize their abilities.
	8-4.	We will strive to create a workplace culture and environment where communication and teamwork are valued.
	8-5.	We will encourage well-balanced work lives for our employees by respecting their work-life balance.
	8-6.	We will not accept unwelcome sexual advances in the workplace, or verbal or physical conduct of a sexual nature, or any other words or actions that violate the dignity or value of another.
8-7. We will not accept forced labor and child labor of any		We will not accept forced labor and child labor of any form.
••	8-8.	We will respect the activities of the labor union and strive to build good relations between the workforce and management.
•	8-9.	We will strive to become a company where employees can have pride in their work through the contribution it makes to society.

#### Aiming to Enhance Each Employee's Satisfaction in Their Work and Private Life Measures for Supporting Efforts to Balance Work and Family Life

#### Mitsubishi Rayon has established childcare and nursing

systems of a quality exceeding legal standards to support the work and family lives of employees.

In 2008 and 2010, the Group was certified as a General Business Operator Conforming to Standards based on the Act for Measures to Support the Development of the Next Generation and obtained the Kurumin Certification Mark.



In June 2010, the Group received the Tokyo Labor Bureau Director's Excellence Award from the Ministry of Health, Labour and Welfare at the Commendations for Equal and Balancing Promotion Companies (Family-Friendly Company category).

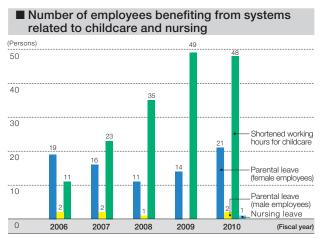


Ceremony of the Commendations for Equal and Balancing Promotion Companies (Koutarou Kita, Director, Human Resource Department, Mitsubishi Rayon)

To promote workforce diversity, Mitsubishi Rayon started actively supporting female employees in 2010, providing career development seminars for regular female employees at its head and branch offices as well as conducting career support seminars for such employees' supervisors. Mitsubishi Rayon aims to be an organization where every employee is enthusiastic and derives great job satisfaction.



Career development seminar for female employees



\* The figures presented above are totals for Mitsubishi Rayon and Mitsubishi Rayon Engineering.

#### Welcome Back Scheme

Mitsubishi Rayon launched its unique Back-To-Work Registration Scheme in January 2008. Employees can register for this scheme regardless of their reason for leaving, including childbirth and nursing. The scheme accommodates various life-stage changes and gives ex-employees the opportunity to return to work with the Company. As of April 2011, 21 individuals (female: 17; male: 4) had registered.

#### For a More Enjoyable Working Environment

#### **Human Rights Protection**

The Mitsubishi Rayon Group strives to ensure a fair working environment where human rights are respected and seeks to raise awareness of this issue through human rights lectures provided during various Group employee training programs.

Regarding harassment, the Mitsubishi Rayon Group's zero tolerance position is clearly spelled out in its employment regulations, and in-house magazines and employee training are used to raise awareness of various forms of harassment. In addition, the Group has set up harassment counseling desks at head offices, branch offices and production centers and has established a committee for countermeasures to ensure rapid response in case of harassment.

#### **Employment of People with Disabilities**

As of March 2011, the employment rate for people with disabilities was 1.95% across Mitsubishi Rayon. As part of our CSR activities, we have made Groupwide efforts to hire more people with disabilities and develop a structure to better accommodate them so that we not only achieve but exceed the statutory requirement of 1.8%.

#### **Reemployment Policy**

In accordance with a policy it introduced in fiscal 2001 and in accordance with the intention of the Law Concerning Stabilization of Employment of Older Persons (revised in 2006), the Company reemploys retired workers and strives to provide working conditions that help these individuals maintain their motivation to work.

# Support for Resuming Work after Forced Absence Due to Illness or Injury

The Mitsubishi Rayon Group maintains programs and systems that support the smooth resumption of work after leave taken due to physical or mental ailments. The Company offers follow-up to sick employees in cooperation with contracted occupational physicians while they are undergoing treatment and creates a work resumption plan for each employee. These initiatives allow employees to gradually build up to a return to full-time work after their required recuperation period.

#### **Employing a Diverse Workforce**

# Basic Policy for Employing Recent Graduates and Mid-Career Workers

With business expanding aggressively overseas, the Group must secure talented personnel. Accordingly, we continue to hire individuals, regardless of nationality and gender, who have the potential for contributing to the Group achieving its corporate vision. The Group also concentrates on hiring career workers on an as-needed basis while periodically recruiting recent graduates.

Corporate Behavior Charter / Business Code of Conduct

# We will work and co-operate with partners around the world and make best use of our abilities.

#### Promoting Global CSR Management through Teamwork

Fully leveraging the synergies gained from the integration with Lucite International, the Mitsubishi Rayon Group forms functional teams to promote the companies' management harmonization and the efficient execution of business operations. Through such teamwork, Mitsubishi Rayon and Lucite International are joining forces in promoting projects aimed at achieving effective management integration.

During fiscal 2010, the Company held a Global Leadership Training program to formulate the Group's growth strategies toward 2025. Through five sessions over a five-month period under this program, participants discussed ways to enable the Group to expand its business portfolio and structure. In the final session, they made presentations to the Company's management showing the outcome of this training program. Six Mitsubishi Rayon employees and two Lucite International employees participated in this year's program.

Meanwhile, the Mitsubishi Rayon Group has already begun exchanging personnel with the MCHC Group. Jointly pursuing business, cost and R&D synergies, we aim to foster the achievement of *KAITEKI* in society at large.



Participants of the Global Leadership Training program

#### **Company Profile**

As of September 2011

Company Name	MITSUBISHI RAYON Co., LTD.
Head Office	6-41, Konan 1-chome, Minato-ku, Tokyo
Date of Establishment	August 31, 1933
Paid-in Capital	53,229 million yen
Consolidated Subsidiaries	90 (28 domestic, 62 overseas)
Equity Method Affiliates	15 (11 domestic, 4 overseas)
Production Centers	Otake Production Center, Toyohashi Production Center, Toyama Production Center and Yokohama Production Center
Laboratories	Corporate Research Laboratories, Yokohama Corporate Research Laboratories, Toyohashi Corporate Research Laboratories and Production Technology Laboratories
Branch/Office	Osaka Branch and Hokuriku Office
Employees	8,203 (Consolidated) (As of March 31, 2011)

#### Fiscal 2010 Results (Consolidated)

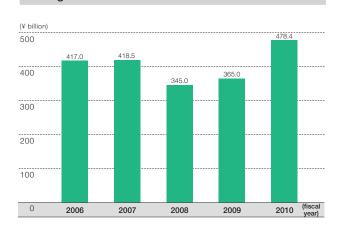
During fiscal 2010, overseas economies continued to see gradual recovery backed by such emerging nations as China. The Japanese economy also began to gradually recover on the back of increased exports to Asia and the positive effects of the Japanese government's economic stimulant measures. However, due to the Great East Japan Earthquake in March 2011, future economic prospects rapidly clouded.

Amid such economic circumstances, the Mitsubishi Rayon Group revised its sixth medium-term management plan, and promoted specific measures based on the Group's "New Design MRC" to achieve its goal. In addition, the Mitsubishi Rayon Group reorganized and consolidated its businesses and initiated other specific initiatives with the aim of realizing the positive effects of business integration with the Mitsubishi Chemical Holdings Group.

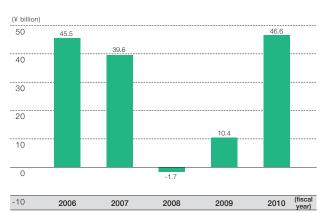
Consolidated performance in fiscal 2010 showed

Changes in consolidated sales

demand recovery in each business category despite several negative factors, including raw material and fuel price hikes due to growing tension in the Middle East, the appreciation of the yen from the second half of fiscal 2010, and impact of inventory adjustment on some materials and applications. Furthermore, the Group recorded year on year increases in income and profit owing to the full-year consolidation of the U.K. MMA manufacturer Lucite International. As a result, consolidated net sales surged 31.0% year on year to 478,401 million yen; consolidated operating income after eliminating actual differences jumped 655.2% to 41,037 million yen; consolidated ordinary income stood at 40,955 million yen, a turnaround from operating loss of 6,135 million yen in the previous fiscal year; and net income totaled 22,880 million yen, a turnaround from net loss of 5,013 million yen.



#### Changes in consolidated operating income



\* Retirement-benefit accounting-based amounts prior to the amortization of differences arising from changes in actuarial assumptions

## The Mitsubishi Chemical Holdings Group's Basic Approach to Social Responsibility With sustainability, health and comfort serving as the conceptual basis for determining its corporate activities, MCHC helps society at large achieve KAITEKI.

Based on the Group philosophy "Good Chemistry for Tomorrow—Creating better relationships among people, society and our planet," we believe that it is our social responsibility to provide the value of *KAITEKI* widely to society through all of our corporate activities, based on the decision criteria of Sustainability, Health and Comfort.

By doing so, we will be able to realize KAITEKI.

In order to achieve this goal, Mitsubishi Rayon will promote and reinforce activities related to corporate governance, safety and the environment, and labor and human rights, which are indispensable for improving the value of *KAITEKI* and underpin corporate activities. Mitsubishi Rayon will continue to contribute to the development of sustainable society.

#### Mitsubishi Chemical Holdings Group Organization







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Public Relations Office

http://www.mrc.co.jp/english/

