MITSUBISHI GAS CHEMICAL COMPANY, INC.

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CSR Report 2015

MITSUBISHI GAS CHEMICAL COMPANY, INC.

Contents

Responsible Care

At every stage of their operations, companies dealing with chemicals must ensure that the environment, safety and health are safeguarded. This starts with the development and manufacturing of chemicals, and goes all the way through to distribution, use and final disposal after consumption. It also involves publishing the results of those activities, being engaged and willing to communicate with society. The chemical industry refers to this conscientious activity as Responsible Care (RC).

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

Editorial Policy

About This Report

The purpose of the 'CSR Report 2015' is to provide stakeholders with information about Mitsubishi Gas Chemical Company, Inc. (MGC) and our corporate social responsibility (CSR) activities, to broaden understanding about MGC and its activities.

The following guidelines were referenced during the creation of this report to provide an easier to understand layout using clear and concise language. This year's edition highlights a wide range of MGC products and how they are used to benefit society, in order to appeal to a wider audience of stakeholders. In addition, there is a section highlighting MGC's new mid-term management plan that was launched in April 2015. We openly welcome your honest opinions and feedback about the contents of this report.

MGC stands firmly committed to promoting further stakeholder engagement through the appropriate sharing of information.

Scope of This Report

Organizations included
All offices in Japan. The activities of the entire MGC Group and individual subsidiaries are also covered in certain sections of the report.

Reporting period
April 1, 2014 through March 31, 2015 (includes some activities after April 2015).
However, Responsible Care (RC) activities are included from January 1, 2014 – December 31, 2014 (includes some RC activities in 2015).

Reference Guidelines

- Ministry of the Environment, "Environmental Reporting Guidelines (2012)"
- Ministry of the Environment "Environmental Accounting Guidelines 2005"
- Global Reporting Initiative (GRI)
  "Sustainability Reporting Guidelines Version (G3.1)"
  "Sustainability Reporting Guidelines Version (G4)"
- ISO 26000

Publication Information

Date of publication: December 2015
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Disclaimer:
This report contains past and present facts, in addition to information about expectations regarding social conditions, management plans and policies of the company together with anticipated results. These assertions or assumptions are based on the information available at the time of drafting, however unforeseen circumstances may lead to unexpected social conditions or result in changes to business activities which are different to those expressed here.

Interview with the President

MGC Group will work collectively together toward creating values to share with society, under the aim of realizing sustainable growth

Toshikiyo Kurai
President and Representative Director

Q1 First, can you provide an overview of MGC Group?

A1 We leverage our creative and innovative technologies to bring valuable chemical products to various sectors.

Since our founding in 1918, MGC Group has continually created new technologies and new value. Today, we supply creative products to a broad range of fields, via our core four business segments called the Natural Gas Chemicals Company, Aromatic Chemicals Company, Specialty Chemicals Company and Information & Advanced Materials Company.

Under the MGC Philosophy for Being, which states "MGC contributes to societal growth and harmony by creating a wide range of value through chemistry," we are currently implementing a mid-term management plan that contains our vision for 2021, our 50th anniversary, in order to realize sustainable growth on a global stage. FY 2014 was the second step and final fiscal year of MGC Will2014. After examining our progress and reflecting on areas of improvement, we have launched the new mid-term management plan called MGC Advance2017 beginning in FY 2015.

Q2 Can you provide a general overview of the previous mid-term management plan and approach taken under the new mid-term management plan?

A2 Based on the issues that became clear in the previous mid-term management plan, we devised the new mid-term management plan with the idea of making progress with certainty.

During the previous mid-term management plan called MGC Will2014, there were sudden changes in business environment marked by an economic slowdown in Europe and the consumption tax hike at home in Japan. Unfortunately, these challenging conditions made it impossible to reach our quantitative targets. Nevertheless, we made a number of strategic moves for the future growth of the company, including getting involved with a shale gas/LNG project in Canada, making JSP, with its strengths in foaming technologies, a consolidated subsidiary, and launching methanol and dimethyl ether production and sales in Trinidad & Tobago. We were also able to build a solid foundation for achieving our future aspirations based on the future direction of MGC Group and a clarification of issues that must be overcome.

Under the new mid-term management plan called MGC Advance2017, we are advancing the results of the past three years based on our commitment from the previous mid-term management plan and we will pass down the five basic strategies to focus on with an expanded role compared to before. The new mid-term management plan will seamlessly blend MGC Group's capabilities in Japan and abroad so that we can move toward realizing even greater dreams through the secondary challenge of "Big dreams only MGC Group can realize!"

MGC Advance2017–Five Basic Strategies
1. Enhancing the profitability of existing businesses, especially core businesses
2. Restructuring underperforming businesses
3. Developing and creating new businesses
4. Improving group-wide operational efficiency
5. Improving total enterprise quality in support of sustainable growth

Q3 Can you share some concrete measures from the new mid-term business plan?

A3 We will seek out growth opportunities based on the five business strategies.

The first basic strategy is enhancing the profitability of existing businesses, especially core businesses. This is because it takes time until a new business venture will contribute to earnings. Under the new mid-term management plan, we have defined eight core and two semicore businesses (see pages 5 and 6), based on which we will work steadily to recover our investments and further enhance profitability by continually investing management resources in a concentrate manner.

The second basic strategy is restructuring underperforming businesses. During the previous mid-term management plan, we successfully exited or reduced our presence in businesses where we lacked competitive advantages and also greatly cut back on fixed costs. Under the new mid-term management plan, we will continue to monitor our businesses and restructure our business portfolios, relocating personnel and improving utility efficiency, in order to enhance competitiveness.

The third basic strategy is developing and creating new businesses. During the previous mid-term management plan, we launched the Next Generation Business Project Group and achieved a certain degree of success in the field of medical packing solutions. In April 2015, we began to dismantle this project for the next stage and established the Advanced Business Development division, which is in charge of selecting new business domains and planning concepts behind ongoing business creation efforts. In March 2015, we created the QOL Innovation Center Shirakawa as a development and manufacturing hub for high value-added products. Through this facility we are working on the creation of new business meeting future market needs.

The fourth basic strategy is improving group-wide operational efficiency. This is a new policy started under the new mid-term management plan. With management taking on a more global nature, the entire MGC Group is now working to maximize corporate value. Specifically, all companies within MGC Group share and act on MGC management policies. We have also introduced the Business Management Unit (BMU), a collection of highly correlated business between MGC and its subsidiaries, and the Group Management Unit (GMU), a collection of group companies engaged in highly correlated businesses. This brings us closer to maximizing earnings and capital efficiency. We will also share know-how, pursue technical tie-ups and take part in human resource exchanges between MGC Group companies, including our new consolidated subsidiary JSP, to accelerate synergies.

The fifth basic strategy is improving total enterprise quality in support of sustainable growth. Safety, compliance, human resources development and strengthening financial position are all never-ending themes that every company faces. Among these, MGC focuses particular attention on its people, the driving force behind its growth. MGC Group has a corporate culture that is open minded and equally inclusive of all when it comes to technology. If technical advantages are found, this work is delegated to the right people regardless of age, position, gender, or nationality. We have passed down this culture as part of our DNA and continue to focus efforts on developing the next leaders of MGC Group.

Q4 Can you tell us about the new approaches incorporated into the new mid-term management plan?

A4 We have devised a new MGC Group Vision and added ROE to our numerical targets.

As the leading concept behind MGC Advance2017, we have devised a new MGC Group Vision called “Creating values to share with society.” This vision forms the cornerstone of MGC’s philosophy for being and represents our commitment to provide value that is widely accepted and approved by society.

In order for MGC Group to continue its operations, we need to be constantly aware of the issue that society faces and the needs that society has, and use this information, as well as our own strengths, to strive to create value that contributes to their solutions.

Based on this recognition, we have established five business areas to focus on. These are energy, information/communications, mobility, medical/food, and infrastructure. In these domains we will now seek to create and supply value-added technologies and products and achieve sustainable growth together with society that transcends the traditional limitations of a chemicals company.

Additionally, under the new mid-term management plan, we have added return on equity (ROE) as a new consolidated management indicator. Our stance to achieve sustainable growth over the medium to long term remains unchanged, but we believe that adding an indicator that receives a great deal of attention from investment markets will help us to live up to and fulfill the expectations and trust of investors by providing greater disclosure of how we are aiming to using our assets efficiently.

Q5 Can you tell us about your safety and environmental initiatives?

A5 MGC Group is working together on these initiatives while striving to raise the awareness of each and every employee.

MGC Group has carried out Accident Zero (AZ) Project since FY 2007 under the safety philosophy that the top priority of our business activity is ensuring safety. Our six years of activities helped MGC to completely eliminate occupational injuries resulting in lost work time on a standalone basis in FY 2013. In FY 2014, we started a new safety project called Bridge to carry on with the success of AZ. While achieving zero accidents and occupational injuries, Bridge seeks to reinforce safety and on-site competencies (see page 30). From the perspective of stronger group management, we also share and implement best practices as well as past accidents and injuries with all group companies through the MGC Group Environment and Safety Council.

In terms of environmental preservation activities, our efforts focus on both reducing the environmental impacts caused by our business activities and making contributions to the environment through our products.

With regards to environmental impacts from our own business activities, we recognize the importance of ensuring that our production sites use energy more efficiently and raising the awareness of each and every MGC Group employee toward the environment.

As for making contributions to the environment through our products, we will leverage the strengths of MGC Group to promote environmental businesses, including popularizing insulation materials and lighter weight materials that both help to curb greenhouse gas emissions or else expanding businesses related to renewable energy. Through such efforts we will continue to reduce environmental impacts for society as a whole.

Q6 In closing, do you have a message for stakeholders?

A6 We will follow through with the MGC Group Vision to enhance corporate value to benefit the economy, society and environment.

Business activities comprise not only an economic aspect of pursuing profits, but also a societal aspect of giving back to society through business and an environmental aspect of contributing to environmental preservation. I believe that each of these aspects does not necessarily conflict with one another, because carrying out these activities in a balanced manner is a precondition for achieving sustainable growth. By developing and supplying products that help to resolve social issues and reduce environmental impacts, we gain economic value, enhance the satisfaction of stakeholders, including customers, business partners, investors, employees, and local communities, and raise the social and environmental value of the company. This represents the MGC Group Vision of “Creating values to share with society.”

To accomplish this, we will focus on communication and engagement like never before. For example, we need to convey the qualities of materials more carefully to customers so that they understand the merits in order to popularize new materials that lower environmental impacts. We will harness our nationwide and international network of business locations to broaden dialogue with local communities and find solutions to the issues facing each of these communities.

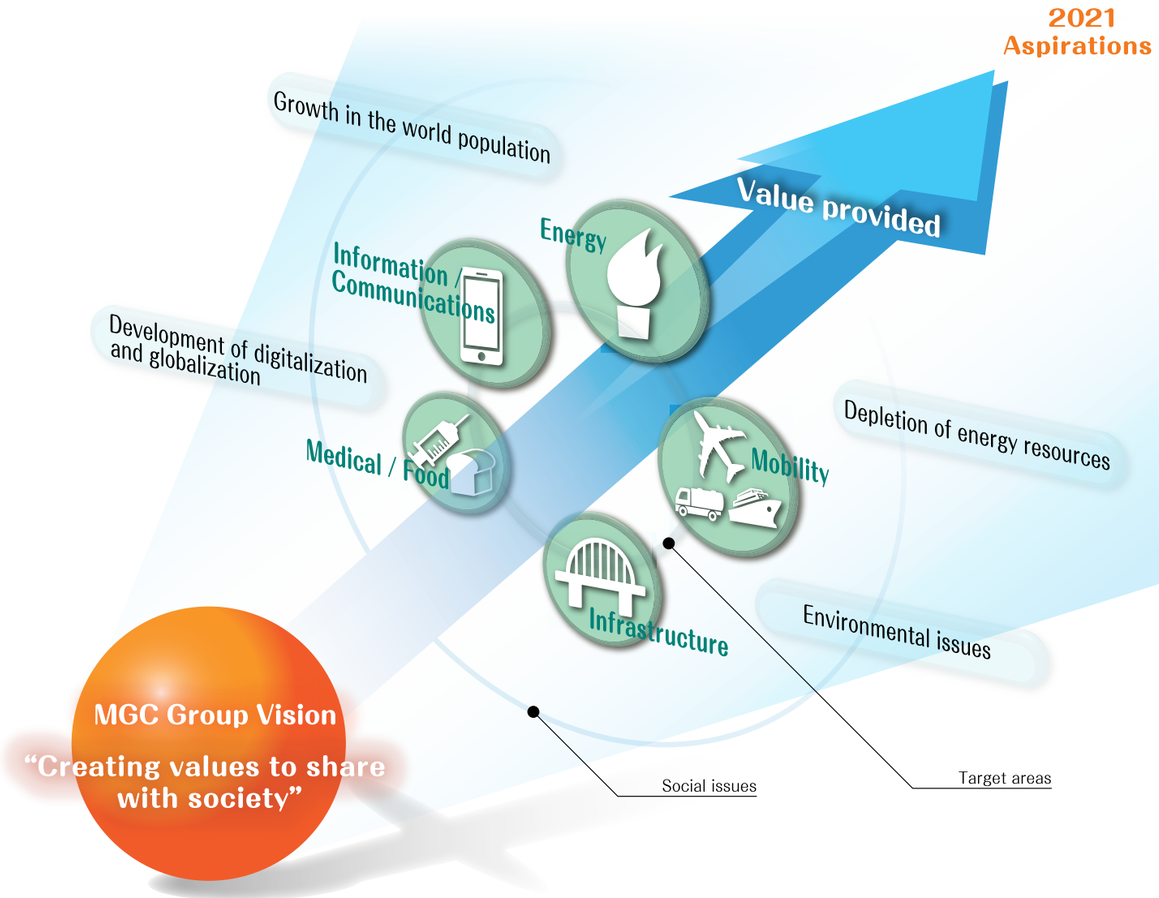
Through such wide reaching social contributions, each and every one of our employees will practice the MGC Group Vision and tackle the challenges represented by the phrase “Big dreams only MGC Group can realize!” MGC Group will work hard in value creation to live up to the expectations of its stakeholders and at the same time we welcome honest feedback from our stakeholders as well.

We launched a new mid-term management plan with the goal of realizing the MGC Group Aspirations in 2021, our 50th anniversary

2017 Advance
Big dreams only MGC Group can realize!

What are the key points about achieving the plan's targets?

MGC's philosophy for being is defined as "MGC contributes to societal growth and harmony by creating a wide range of value through chemistry." The essence of this statement is found in the New Group Vision "Creating values to share with society." In response to social issues, we have defined five target areas where we will leverage the strengths of MGC Group. Within businesses that realize a rich society meeting the needs of the times and businesses that are highly sustainable and profitable, we will aim to create value truly needed by society, including features, quality and price.



MGC Advance2017 –Five Basic Strategies

1 Enhancing the profitability of existing businesses, especially core businesses	3 Developing and creating new businesses
2 Restructuring underperforming businesses	4 Improving group-wide operational efficiency
	5 Improving total enterprise quality in support of sustainable growth

MGC Group's Strengths

- Unique proprietary technologies
- Global marketing structure
- Development structure to meet customer needs
- Wide range of businesses
- Strong relationships with leading clients
- Production system consisting of multiple locations

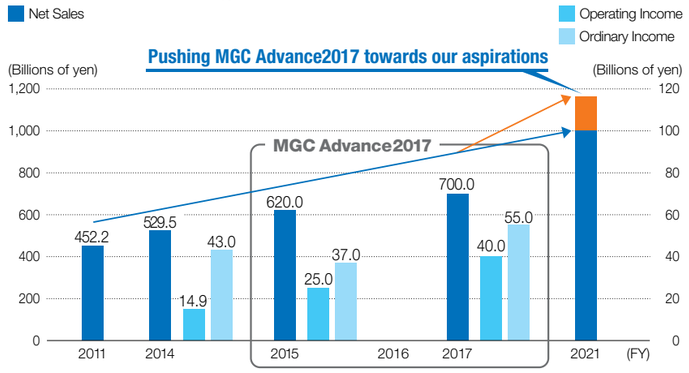
2021-MGC Group Aspirations

MGC Group continues to earn the firm confidence of the public through its CSR achievements.

Become a truly profitable research and development-oriented corporate group.

Join the Global Top 30 by exceeding sales of 1 trillion yen.

Quantitative Targets of the New Mid-Term Management Plan



Plan period
April 2015–March 2018

Target financial indicator values (FY 2017)

Consolidated parameter	Target
Net sales	¥700 billion
Operating income	¥40 billion
Ordinary income	¥55 billion
ROE	≧9%

Assumptions: Exchange rate of US$ 1 = ¥115 (3-month fixed)
Dubai crude oil price (USD/bbl): $55 for FY 2015 and $65 for FY 2017

What do the five basic strategies entail?

1 Enhancing the profitability of existing businesses, especially core businesses

Mainly invest management resources in core businesses to further enhance profitability.
Mainly invest management resources in the eight core and two semicore businesses to further enhance profitability.

	Core Businesses	Semi-Core Businesses
Natural Gas Chemicals Segment	Methanol / Natural resources and energy	
Aromatic Chemicals Segment	MXDA & MX Nylon / Foam	Aromatic aldehydes
Specialty Chemicals Segment	Hydrogen peroxide & electronic chemicals (EL chemicals) Polycarbonate & functional sheet film	Polyacetal
Information & Advanced Materials Segment	BT materials / AGELESS	

2 Restructuring underperforming businesses

We will continue to monitor businesses while work is done to enhance competitiveness — this includes restructuring business portfolios, relocating personnel and improving utility efficiency.

3 Developing and creating new businesses

Create business in new areas meeting future market needs, in addition to surrounding areas of existing ones.

New Business Development Measures
1. Establish Advanced Business Development division
2. ¥50 billion for R&D investment
3. Pursue M&A for growth
4. Utilization of QOL Innovation Center Shirakawa

4 Improving group-wide operational efficiency

Maximize corporate value globally through group management action.

5 Improving total enterprise quality in support of sustainable growth

Achieve further improvement in quality that continuously enhances MGC Group's competitiveness.

Main Themes
- Minimizing losses using safe and stable operations
- Securing and training human resources for the future of the Group
- Strengthening internal control and compliance systems
- Realizing a healthy and strong financial position

Providing the Technology and Products that Help People Increase Their Quality of Life While Supporting Sustainable Development of the Global Community

Corporate Information (as of March 31, 2015)

Company name
MITSUBISHI GAS CHEMICAL COMPANY, INC.

Head office address
Mitsubishi Building, 2-5-2 Marunouchi,
Chiyoda-ku, Tokyo 100-8324

Established January 15, 1918

Incorporated April 21, 1951

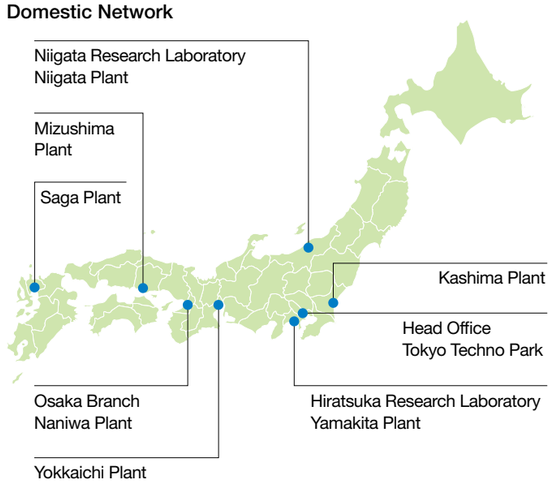
Capital ¥41.97 billion

Number of employees
8,254 (consolidated), 2,392 (non-consolidated)

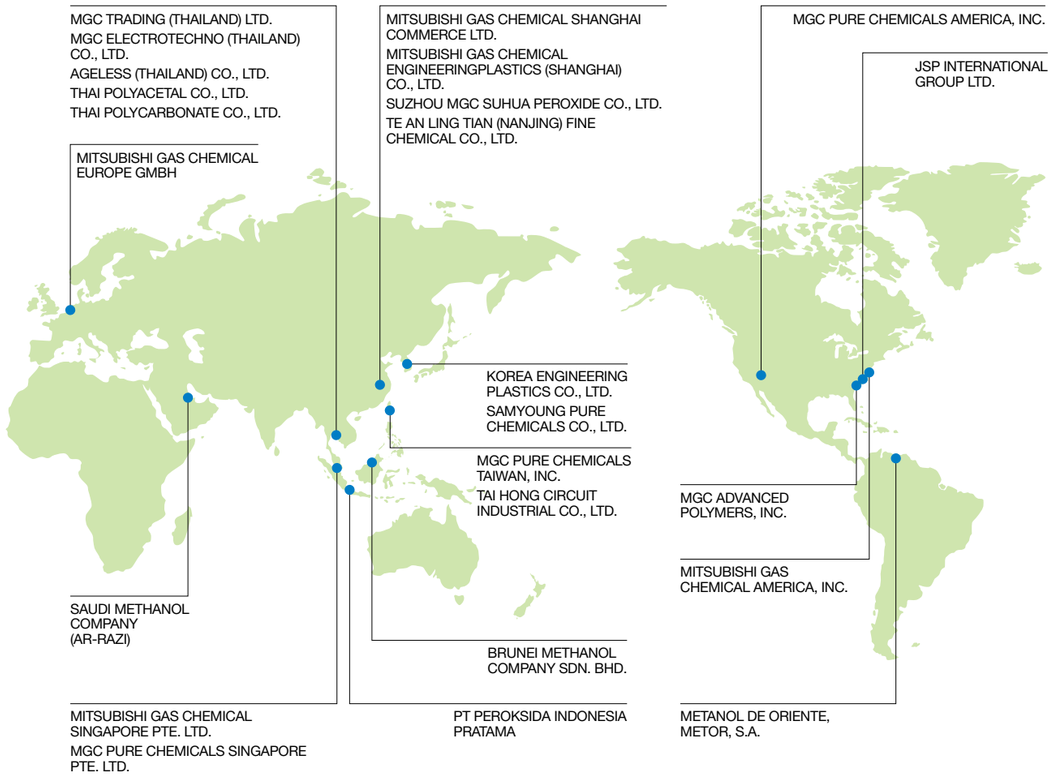
Number of consolidated subsidiaries 76

Main business sites in Japan
Branch Osaka Branch
Overseas offices Shanghai Office, Taiwan Office
Research institutes
Tokyo Techno Park (Tokyo Research Laboratory, MGC Chemical Analysis Center), Niigata Research Laboratory, and Hiratsuka Research Laboratory
Plants
Niigata Plant, Mizushima Plant, Kashima Plant, Yokkaichi Plant, Yamakita Plant, Naniwa Plant, and Saga Plant

Domestic Network

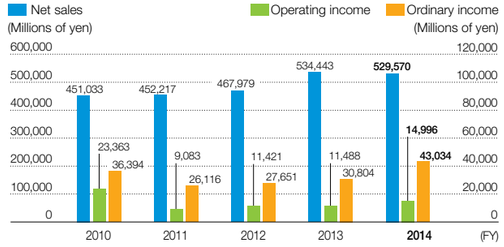


International Network

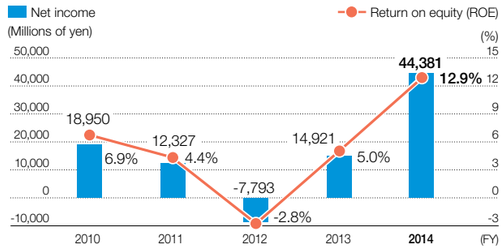


Financial and Non-Financial Highlights

Net sales / operating income / ordinary income (consolidated)

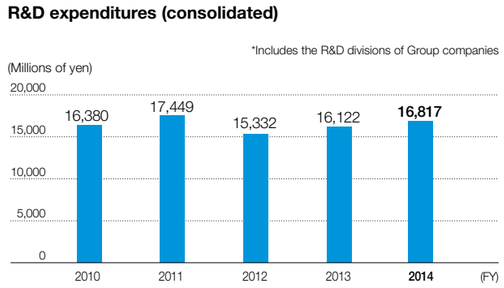


Net income / return on equity (ROE) (consolidated)

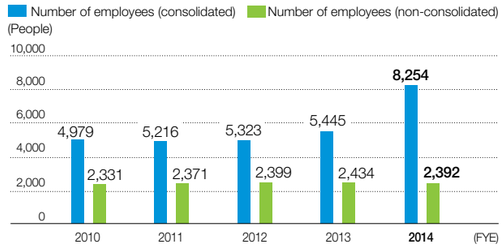


R&D expenditures (consolidated)

*Includes the R&D divisions of Group companies

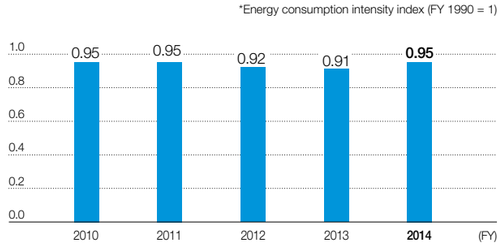


Number of employees (consolidated/non-consolidated)

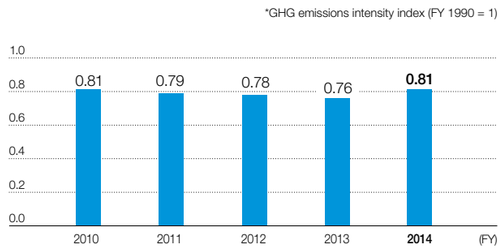


Number of female employees / managers and number of employees / managers who are foreign nationals (non-consolidated)

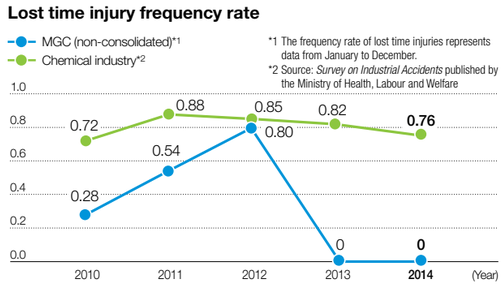
Energy consumption intensity (non-consolidated)



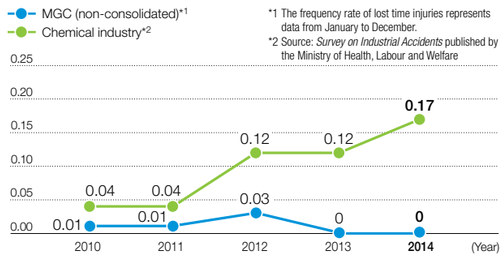
GHG emissions intensity (non-consolidated)



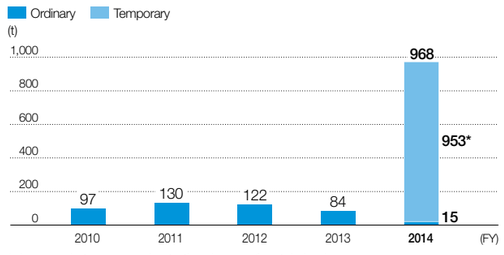
Lost time injury frequency rate



Lost time injury severity rate



Final disposal volume of waste (non-consolidated)



* Increase in temporary due to the closure of certain businesses

MGC is a chemical company engaged in a truly wide range of segments, from basic chemicals to fine chemicals and functional materials.
MGC's diverse array of products and technologies are used in many familiar products found in our home, at the office and at various other facilities.

In the Home

Polycarbonate film (lupilon Film)

Used in diffusion films for LCD displays to ensure light evenly reaches across the entire screen.

Pyrroloquinoline quinone (PQQ)

A new food ingredient considered to be not only beneficial for the brain but also for beauty as well.

Hydrogen peroxide

Used for bleaching in a pulp and paper production process.

Aromatic aldehydes

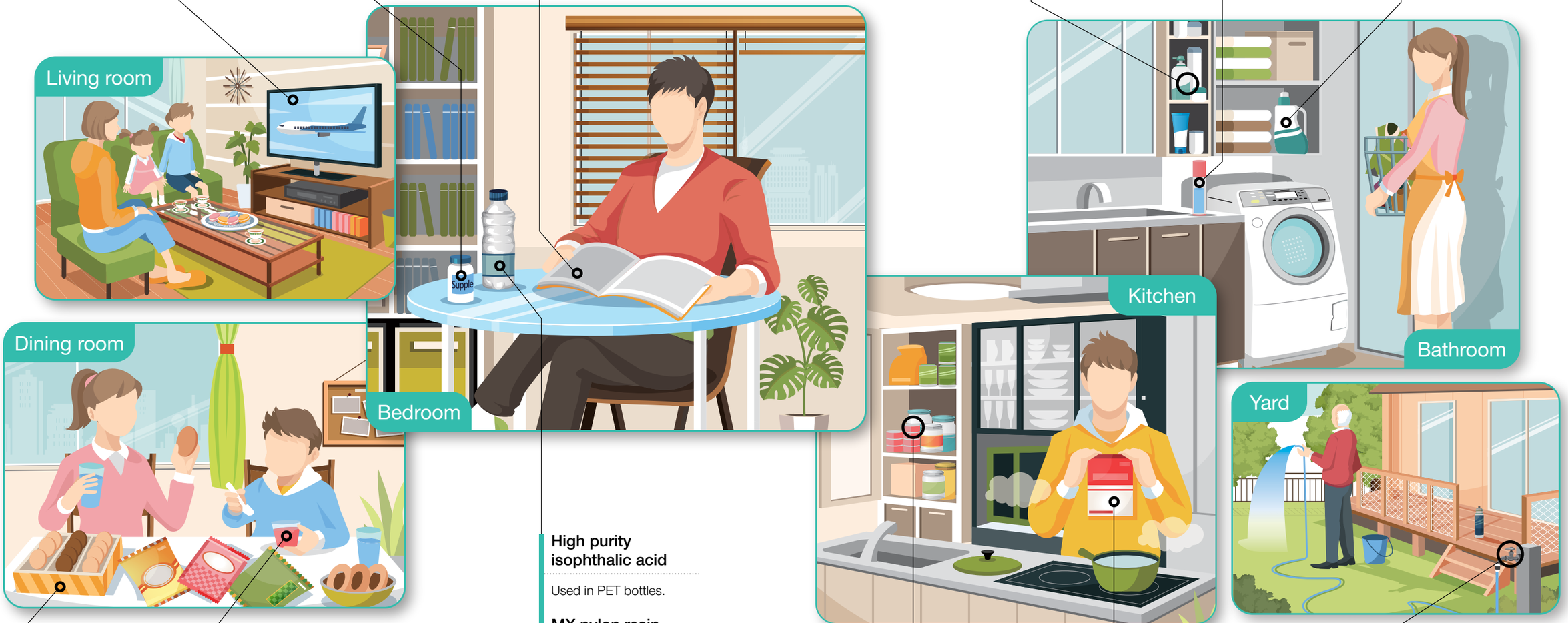
Used in fragrances included in soaps and shampoos. Able to recreate a wide range of scents through ingredient blending.

Dimethyl ether (DME)

Used as a spray propellant in place of CFCs, which damage the ozone layer.

Hydrogen peroxide

Found in oxygen bleaches that can be used for whites and colors. Once broken down, it becomes harmless oxygen and water, resulting in zero environmental impact.



AGELESS

Absorbs oxygen in sealed containers to maintain a long shelf life, taste and freshness. Used to maintain the quality of food.

Heat-resistant polyester resin (ALTESTER)

Used in jello and other containers because it is easily molded and is highly transparent.

High purity isophthalic acid

Used in PET bottles.

MX nylon resin

Used for hot tea and carbonated beverages because of its excellent gas barrier properties.

Neopentylglycol

Used in the outer film for PET bottles.

Hydrogen peroxide (Diapower HP)

Used to clean and disinfect food and beverage containers contributing to longer shelf lives at room temperature.

AGELESS OMAC

A film that absorbs oxygen to prevent oxidation of contents. Widely used in retort pouch foods and prepared foods heated with boiling water.

Orthoxylene and metaxylene

Used in plasticizing agents for softening PVC water pipes because of their resistance to corrosion.

At the Office

Meta-xylenediamine (MXDA)

Used in paints and other coatings.

Miscellaneous engineering plastics

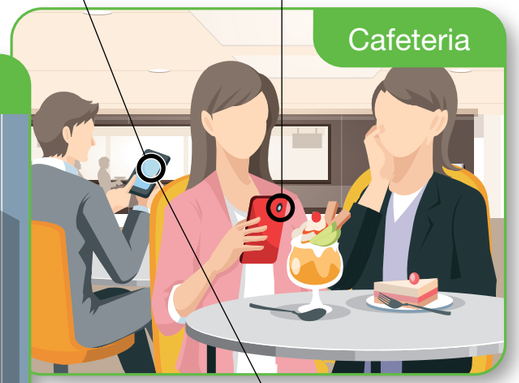
Used in the outer casings, internal gears and photoreceptor drums of printers, copy machines, and other office automation equipment.

Polycarbonate (Iupilon)

Used in touch panels.

Special polycarbonate (Iupizeta EP)

Used in camera lenses. Features excellent optical properties, such as high transparency and a high refractive index, which contributes to higher resolution cameras.



BT materials for semiconductor packages

MGC was the first in Japan to develop this plastic PWB material that helps to make mobile devices more compact and high performance.

Etching liquid

Used during the manufacture of semiconductors.

Epoxy printed wiring board (PWB) material

Highly reliable material used in motherboards.

Lense monomer

Used in eye glass lenses. Its high index of refraction makes lenses thinner and lighter weight.

Around Town

Neopentylglycol

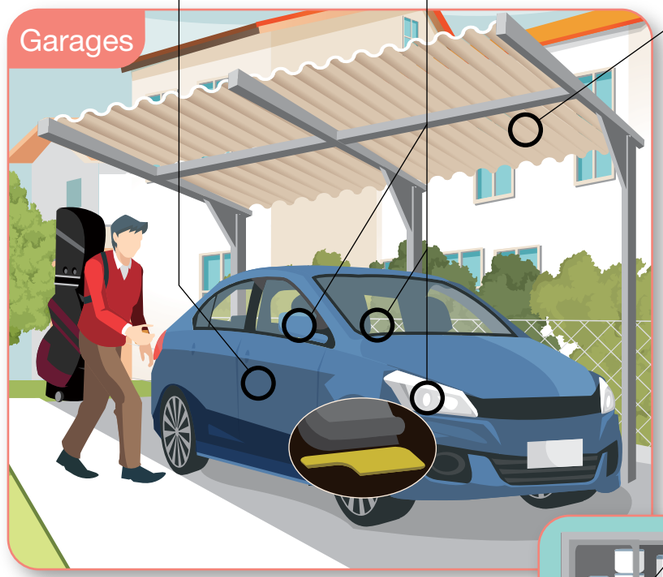
Used in powdered paints and coatings.

Miscellaneous engineering plastics

Used as a component in door mirrors, headlights, automotive interiors, and the camera lense of drive recorders.

Polycarbonate (Iupilon Sun Guard)

Used as a roofing material because of its weather resistance and it maintains its color even when exposed to ultraviolet rays.



Drying and de-oxydation agent (PharmaKeep)

Maintains low oxygen concentration levels and low humidity for pharmaceuticals, which ensures longer lasting quality.

Anaerobic culture system (AnaeroPack)

Used in microorganism testing at clinical labs.

RP System

Widely used to preserve cultural assets.

Methyl methacrylate (MMA)

Used in aquarium tanks because of its high transparency.

Metaxylenediamine

Used in wind turbine blades.

Peracetic acid (Diapower)

Used in the disinfectant and sterilization of medical devices and equipment.

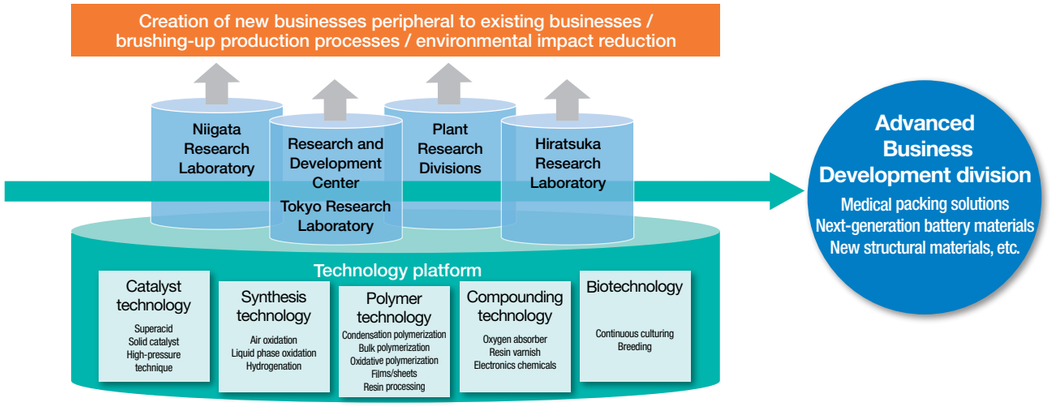
Responding to the Needs of Society by Passing Down a Corporate Culture that Values Proprietary Technologies

R&D Strategy

In our existing businesses, MGC is utilizing its technology platform based on the core technologies of catalysts, synthesizing processes, polymers, and biotechnology to advance research and development into: methanol, xylene, and xylene derivatives, engineering plastics and their processed products, product groups using hydrogen peroxide, an oxygen absorber, and many more products that we provide to society.

In addition, we are leveraging our long-standing core technologies to improve new processes in the chemical chain and we are expanding our R&D strategy to target growth fields, such as electronics, the environment, energy, life sciences, and food packaging, among others. As for new businesses, we began to dismantle the Next Generational Business Project Group established in 2011 for the next stage and we established the Advanced Business Development division, which is in charge of selecting new medium- to long-term business domains and planning concepts behind ongoing business creation efforts. Under this new structure, we will focus greater efforts on new business creation and incubation.

R&D goals and targets



Research and Development Sites and Structure

MGC's research and development sites comprise laboratories, plant research technology sections, and development and technology centers, each of which carries out research related to its overseeing company. Research and development is divided into Company R&D and Corporate R&D. Company R&D assesses changing market needs, and brings research and development divisions, manufacturing, and marketing together to undertake research and development in line with companies' business strategies. Corporate R&D aims to create new businesses from a mid- to long-term perspective through the Advanced Business Development division.

The MGC Analysis Center performs contract analysis and safety testing for the entire company.

Research and development sites		Tokyo Techno Park			Niigata Research Laboratory	Hiratsuka Research Laboratory	Niigata Plant	Mizushima Plant	Yokkaichi Plant	Yamakita Plant	Kashima Plant
		Tokyo Research Laboratory	Research and Development Center	MGC Chemical Analysis Center							
Company R&D	Natural Gas Chemicals Company			●	●	●	●	●			
	Aromatic Chemicals Company			●	●	●	●	●			
	Specialty Chemicals Company	●		●					●	●	●
	Information & Advanced Materials Company	●	●	●							
Corporate R&D	Corporate Division	●		●	●	●		●			

Delivering a Diverse Variety of Functions while Considering Environmental and Safety Aspects

Research and Development

Environment-related expenses in R&D
(FY 2014)

For environmentally friendly products: **2** billion yen

For environmentally friendly production methods: **1** billion yen

- Development of energy saving technologies
- Development of environmentally friendly products
- Product design using safe raw materials
- Process design, development of production techniques
- Assessments of product safety

Manufacturing

CO_2 emissions reduction*1: 19% (over FY 1990 levels)

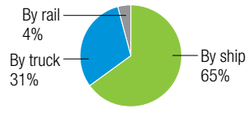
Chemical substance management and air pollutant emissions*2: 45% reduction (over FY 2010 levels)

*1 GHG emissions intensity (CO_2 equivalent)
*2 PRTR substances

- Procurement of safe raw materials
- Appropriate management of chemical substances
- Safe production and accident prevention
- Emergency response training
- Energy efficiency
- Environmental preservation
- Global warming prevention

Marketing and Transport

Ratio of transport volume*3
(FY 2014)



*3: Transport volume = Weight of cargo x Distance

- Modal shift
- Reducing logistics costs
- Ensuring safe distribution
- Training for responding to logistics accidents
- Fair marketing practices
- Quality assurance practices

Customer Companies

Customer companies*4: approx. 13,000 (domestically)

Providing products and technologies, through our broad-based business in basic chemical products and specialized products, not only in the chemical industry, but also in a diversity of other industries, including the electrical machinery, electronic device, vehicle, fiber, paper pulp, food packaging, and pharmaceutical industries.

*4 The number of manufacturers, domestically, who use and consume MGC products. Trading companies not included.

- Providing safety information (issuing SDS)
- Technological services and complaint handling
- Response to the PL Law
- Guidance for safe disposal methods (issuing SDS)

Consumers

Providing functionality and security to end users through products of our customer companies

- Risk assessment within the supply chain
- Product planning based on risk assessment
- Manufacture and supply of products in line with product plans
- Appropriate safety assessment of new products
- Providing the most up-to-date safety information to customer companies

MGC's Efforts in CSR

We established the "MGC Philosophy for Being" and the "MGC Corporate Behavior Guidelines," as a guide for our company to gain the trust and understanding of society and to lead our employees to foster confidence and pride in working for MGC. In addition, we have incorporated CSR initiatives as part of our mid-term management plan, which we are currently implementing.

MGC Philosophy

Management Philosophy

Philosophy for Being

MGC contributes to societal growth and harmony by creating a wide range of value through chemistry.

Principles of Conduct As a Professional Group

1. Courage unafraid of change
2. Aspiration toward lofty goals
3. Perseverance toward achieving goals
4. Communication to broaden rapport

Safety Philosophy

The top priority of our business activity is ensuring safety.

MGC Corporate Behavior Guidelines

Mitsubishi Gas Chemical Company, Inc. ("MGC" or "the Company") aims to be a company that acts with sound judgment and maintains the trust and understanding of society. The Company operates under six behavioral principles, presented and explained below, and will share knowledge of these principles widely throughout Group companies.

Senior managers recognize that it is their role to embody the spirit of these principles, and while ensuring that they have a full understanding of the necessary information inside and outside the Company, they will take the initiative to promote a high level of corporate ethics, and strive to develop and operate an effective framework for this purpose through the internal control system. Furthermore, if an incident takes place in contravention of these guidelines, they will take command and fulfill their obligations for internal and external disclosure, strive to identify the cause of the incident and prevent its recurrence, and deal with the matter strictly and fairly in respect to all parties, including management itself.

(1) MGC will ensure customer and consumer satisfaction and trust by providing high-quality products and services that are useful, safe and reliable.
(2) MGC will voluntarily and proactively address environmental issues.
(3) MGC will comply with laws, regulations and rules, and will conduct fair, transparent, appropriate and open business activities.
(4) MGC will endeavor to ensure broad-ranging communication with society through appropriate disclosure of information.
(5) MGC will engage in business activities that are useful for society, and actively contribute to society as a responsible corporate citizen.
(6) MGC will provide comfortable and productive working conditions for employees, and will ensure a safe and rewarding working environment.

For entire guidelines, please refer to our website; http://www.mgc.co.jp/eng/about/compliance/

MGC Group Vision

Creating values to share with society

We will thoroughly improve CSR performance based on our philosophy for being, and as our Group vision, clarify the path taken in the new mid-term management plan.
The promotion of business has the aim of creating value truly needed by society, including functions, quality and price.

Corporate Governance

Maintaining a sound and transparent management system is a key management issue, and as such we are working to improve transparency, ensure fairness, and accelerate decision-making.

Basic Approach to Corporate Governance

MGC has adopted an executive officer system aimed at a sound and highly transparent management structure. The Board of Directors is positioned as the organization responsible for making decisions on critical management issues, including basic management policies, and for supervising business execution by MGC directors. This has strengthened governance and enhanced the operational framework by clarifying functions and responsibilities. MGC has also adopted an internal company system for its business divisions, which has clarified responsibility and improved management performance.

MGC aims to enhance the transparency and fairness of management through internal audits performed by Audit & Supervisory Board members and will develop effective corporate governance through appropriate disclosure of management information.

Overview of Corporate Governance Structure

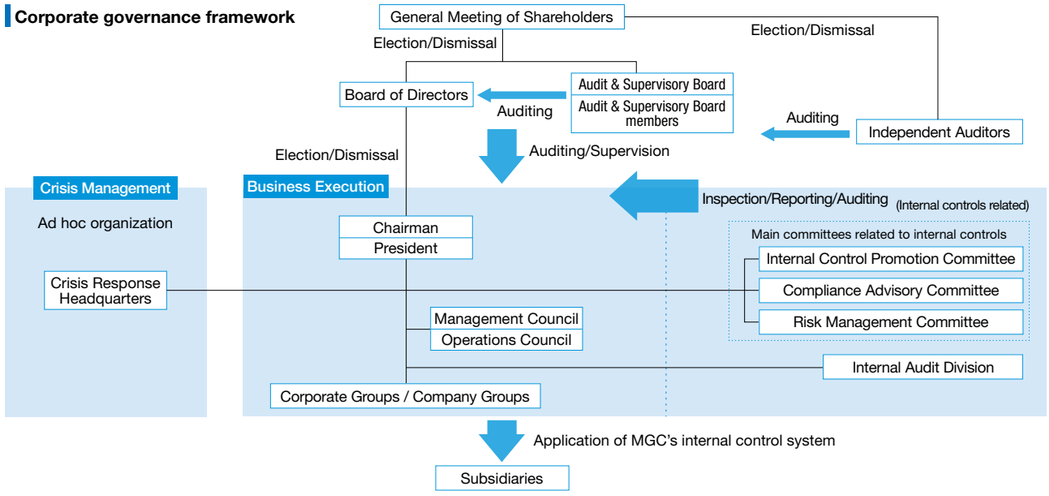
For the sake of appropriate management supervision and counsel from an external perspective, and to raise our management transparency and fairness, MGC appoints outside directors. Our current management structure consists of 12 directors, including two outside directors, and 22 executive officers (including people who concurrently serve as directors). This marks an increase of one external director in FY 2015 in order to further strengthen our management structure.

Any important matters affecting MGC are to be reviewed and decided with a broader perspective at the Management Council where management policy may be discussed, and at the Operations Council where definitive action plans may be discussed. In addition, MGC draws upon the expertise of legal counsel and other experts when required in the decision-making process and the business execution of the company.

There are four Audit & Supervisory Board members, two of whom are external. They attend important meetings as well as board meetings, conduct audits of departments, inspect subsidiaries, and strive to understand the decision-making process and status of business execution. In addition to ensuring a rational decision-making process and compliance with the law and corporate ethics, the Audit & Supervisory Board members conduct inspections of our business operations. They regularly exchange opinions with directors and receive status reports on business execution from directors and employees on a regular basis, or immediately when involving material matters. Members request explanations as required and state their views. They also inspect important documents concerning business execution, and require information from directors and employees.

Moreover, in order to enhance internal controls and improve efficiency of business management, MGC has established an Internal Audit Division that is separate from the statutory auditors. This division oversees the execution of MGC and MGC Group companies to ensure appropriate practices, and conducts internal audits in accordance with our annual plan.

Corporate governance framework



Note) The Tokyo Stock Exchange created and enacted its Corporate Governance Code in 2015. Based on this, MGC has reexamined its approach to corporate governance. However, efforts are still underway as of the date this report was published. Therefore, the information found in this section represents the announcements as of June 30, 2015.

Compliance and Risk Management

In our aim to earn the trust and understanding of the community, MGC practices compliance while readying and strengthening systems for responding to any manner of risk.

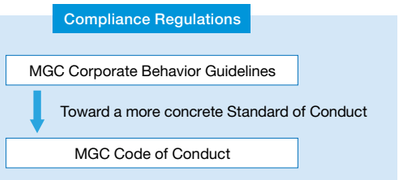
MGC Group Compliance

Compliance at MGC Group involves not only abiding by laws and company rules, but also widely upholding fair, transparent and free business activities based on its responsibilities to society as a group of companies. Based on this understanding, we have summarized the actions to be taken by executive officers and employees in the “MGC Corporate Behavior Guidelines” and the “MGC Code of Conduct” and we make revisions to these guidelines and code of conduct as necessary based on changes that take place in society.

To ensure thorough compliance across the entire MGC Group, we distribute the “MGC Compliance Handbook” to all of our employees in Japan. In FY 2013, this handbook was updated based on the revisions made to our code of conduct and other contents. For overseas Group companies, we created English, Chinese and Thai language versions of the “MGC Corporate Behavior Guidelines” and the “MGC Code of Conduct” to ensure the philosophy of MGC Group is made known to and practiced by all.

MGC Compliance Handbook

MGC compliance concepts



Compliance System

MGC has established a Compliance Committee to supervise matters concerning the Group’s compliance program, headed by the Chief Compliance Officer and reporting directly to the President. The Compliance Committee also includes a director (as vice-chairperson), heads of compliance-related departments, and others. The roles of the Committee are as follows:

1. **Formulating and deliberating on the framework, policies, and implementation measures of MGC Group compliance.**
2. **Understanding the implementation status of MGC Group compliance, and providing necessary guidance and supervision.**
3. **Inspecting instances of noncompliance, and formulating and deliberating on measures for rectification and prevention of recurrence.**

Compliance implementation measures, guidance and supervision, and steps taken to rectify and prevent recurrence of noncompliance, which are formulated and deliberated on by the Compliance Committee, are reported to the MGC President and Audit & Supervisory Board, then implemented after following specified internal procedures.

In addition, MGC has set up a “Compliance Consultation Desk” to achieve early detection and undertake preventative steps against unethical practices. Our internal contact desks are staffed by internal audit departments, while external contact desks can be found at the offices of specialized attorneys (including access to female attorneys. These specialized attorneys also provide advice to the Compliance Committee and assist with the training of various related departments.

Reports and consultations brought to the attention of the Consultation Desk and deemed as potentially serious compliance violations are promptly reported to the Compliance Committee chairperson. The Compliance Committee decides on necessary rectification or recurrence prevention measures after investigating the related facts. Investigation results and the details of said measures are also reported back to the party responsible for the consultation or report.

Compliance Education

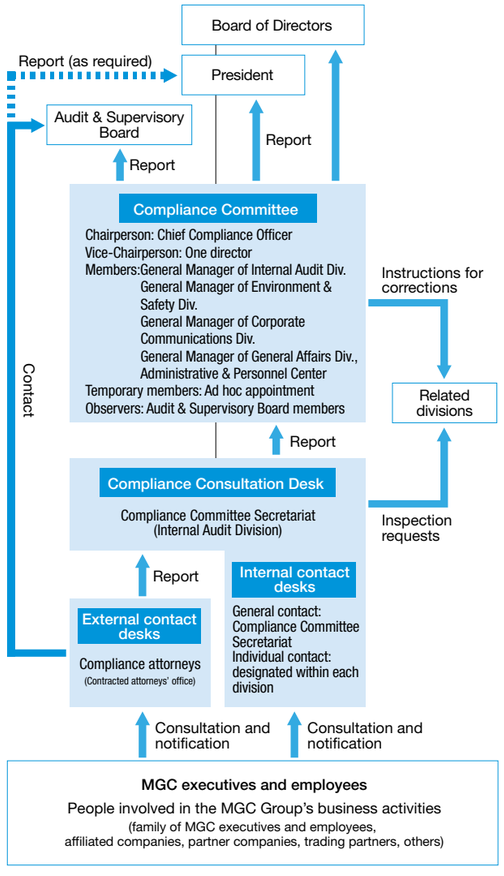
MGC sets aside October each year as “Ethics Month” to conduct compliance training for employees. The president also sends out a circular to all business sites to raise awareness about compliance issues.

In FY 2014, we chose specific items of timely nature from among the 40 different types of legal compliance training materials contained on our intranet. These items were provided to employees, through our e-learning system.

Given rising need to respond to compliance issues, such as cartel involvement or illegal payoffs, at Group companies affiliated with our overseas businesses in emerging countries and other locations, MGC is also working to enhance the quality of its compliance training for staff that are dispatched overseas.

Screenshot from the e-learning system

MGC compliance structure



Risk Management in MGC Group

In response to the various risks related to our business activities, MGC launched company-wide, comprehensive risk management activities in 2006 with the establishment of a Risk Management Committee. To disseminate knowledge at the start of our activities, we conducted seminars for top management and for employees at all workplaces on the topics of the importance and practice of risk management.

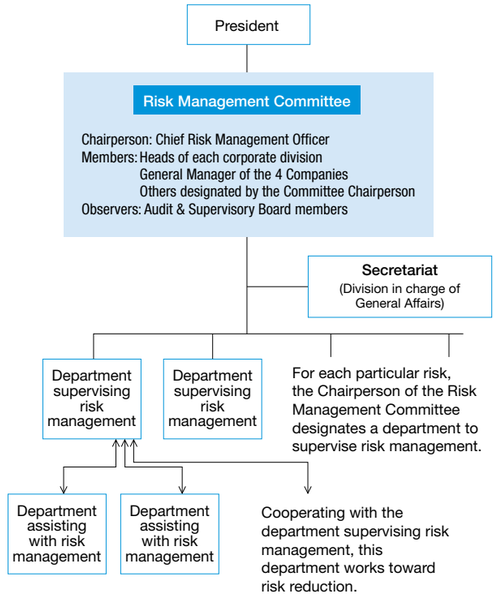
Presently, we are working on reviewing and implementing measures to reduce latent risks and making efforts to revise our business continuity plan (BCP). We are examining measures against risks given the highest priority after all company-wide risks were identified and assessed and when necessary we create a new BCP. BCPs created by each department are centrally managed by the secretariat of the Risk Management Committee to ensure other departments have access for use as reference.

Risk Management Framework

The Risk Management Committee, headed by the Chief Compliance Officer, is composed of the heads of the four Companies conducting business activities, as well as all corporate divisions. The Committee assesses risk situations from broad perspectives, and instructs and oversees departments to prioritize risks and enact risk reduction measures.

In terms of risks associated with project implementation, we have developed an action plan to identify and evaluate risks inherent in our operations or internal control systems. We then take the appropriate measures. In the event that a serious risk is identified, we set up a special group to cope with it according to internal rules.

Risk management promotion system



Compliance and Risk Management

Risk Management Committee's Annual Plan for FY 2014

Among the risks that accompany our business activities, we have identified earthquakes, toxic or hazardous substance leaks, fire and explosion, and information leaks as four that must be handled with priority on a company-wide basis. Our workplaces are also examining countermeasures related to these priorities.

In FY 2014, we actively pursued major annual policy points that included those listed below.

1. **To carry out independent and autonomous risk management activities by each division and to provide instruction and oversight by the Risk Management Committee that considers management perspectives.**
2. **To identify company-wide risk from both management and working level perspectives and to implement effective countermeasures.**
3. **To carry out planned activities aimed at the completion of comprehensive earthquake resistance measures and measures against information leakages at our business sites.**
4. **To work toward further enhancement of our risk management practices in MGC and at group companies.**

Major Initiatives against Significant Risks

Measures against major natural disasters

MGC has deployed company-wide a safety confirmation system to cope with a major natural disaster such as an earthquake in the northern part of Tokyo Bay, which is assumed by the Cabinet Office to be a possible occurrence. In addition, we have provided offices with emergency devices, such as wireless communication devices, so as to enable communication among workplaces even when regular telephone communications become disabled or restricted.

Furthermore, as part of our BCP, we conduct emergency training sessions using these systems and equipment each year, so that even if headquarters becomes paralyzed due to a major natural disaster, each of our facilities such as plants and research centers may continue supporting customers and maintaining other services, supplementing the headquarters' function.

We also are pushing forward initiatives for first-responder training at each workplace, as well as gathering stocks of reserve supplies. To cite examples of other initiatives, we have planned for scenarios in which working employees and visiting guests face difficulties returning to their homes after a disaster. We have stocked food, drinking water, and other materials to allow persons in the company to remain in offices for at least three days.

MGC carried out earthquake resistance assessments covering all of its buildings which are old and have a greater potential of causing injuries should a major earthquake occur. Based on these assessments, in FY 2014 we have been moving forward with responses that include seismic retrofitting. Additionally, we examined ways to improve the seismic performance of model plants, including manufacturing equipment.

Wireless communication device for emergency use

Satellite mobile phone

Disaster reserve supplies

Earthquake resistance assessment (Yokkaichi Plant)

Measures against information leakages

Regarding the prevention of information leaks—one of the risk issues we have targeted for priority treatment—we examined ways to manage technical information and other measures.

Going forward, in addition to issuing warnings and strengthening our information management practices, we think it is important to minimize information leakage risks based on scenarios where secrets were leaked and to address the challenge of striking the right balance between the prevention of information leakages and properly sharing this information within the company.

Risk management of group companies

As a risk management measure including Group companies, we are carrying out requests for enhanced risk management, while also exchanging information after investigating on each company's initiatives and practices.

We will continue to examine ways that our Group companies can raise the bar when it comes to their risk management practices, given the rising need for internal controls to be consistent across our entire corporate group.

Together with Stakeholders

As a member of society MGC contributes to the community, and by fulfilling its responsibilities to various stakeholders, the company will earn society's trust and sympathy.

Together with Customers

We work hard to provide safe and highly reliable products and services to all of our customers, from direct business partners to the end consumer. As part of these efforts, all of our plants have acquired an ISO 9000 series of certification in quality management.

If problems related to the Product Liability Law occur, the designated staff person in charge of complaints at each Company will work with the business division in question, the production divisions, research divisions, or logistics divisions, and investigate the source of the problem. Related divisions report to the Product Liability Committee so that the committee can implement company-wide preventive measures. Additionally, until now problems related to the Product Liability Law have not occurred at MGC.

In addition to these company-wide activities, we are also striving to raise customer satisfaction in each particular business division.

Obtained Halal Certification for Food Deoxidants

Halal refers to foods that are prepared according to Islamic practices. Muslims are only permitted to eat Halal foods per their religious beliefs. Pork and alcohol are two types of food that are prohibited under Islamic law. Both cannot be used as ingredients to prepare any type of food. Rigorous care is also taken to ensure both never come in contact with Halal foods during raw materials processing, packaging, storage and sale

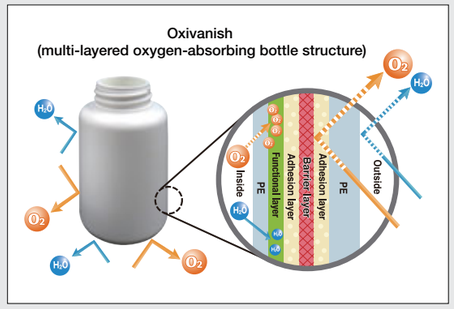
MGC's oxygen absorber called AGELESS is not eaten directly, but it is contained in the same package as food. For this reason, in recent years a rising number of customers from regions with a large Muslim population have made inquiries about whether AGELESS is Halal certified.

Given this, MGC obtained Halal certification for AGELESS used in food applications from the Japan Islamic Trust. This will enable us to expand the market for AGELESS by meeting the needs of the almost two billion Muslims around the world.

Developed Functional Bottle for Pharmaceuticals

Glass bottles have been the container of choice for pharmaceuticals because they do not allow oxygen to penetrate, which prevents quality issues caused by oxidation. However, glass bottles are heavy and could break, so pharmaceutical companies asked us to develop a plastic bottle solution.

Based on these requests, MGC developed Oxibarrier, a plastic bottle that will never break and that offers a robust gas barrier. In addition, we have also developed Oxivanish, a plastic container that actually absorbs oxygen, and Moistvanish, a plastic bottle that absorbs moisture. We will continue to develop products that meet the needs of pharmaceutical companies around the world.



Honored with a PQS Award from Intel Corporation

MGC received a Preferred Quality Supplier (PQS) award from Intel Corporation, a global leader in semiconductors. Intel presents this award to suppliers and MGC has been a recipient for five consecutive years since 2010.* MGC was recognized for the quality, cost, supply system, technical prowess, customer service, labor and ethics systems and environmental sustainability costs with regards to its chemicals used in the manufacture of semiconductors.

* We received the PQS award in 2010, 2011, 2013 and 2014, and the Supplier Continuous Quality Improvement (SCQI) award in 2012.

Together with the Community

Interaction with local communities

■ Beautification activities in the local community

At each of its sites, MGC participates in cleanup activities for roads, nearby riverbeds, and other areas.

Participating in a study, clean-up, and tree planting project for the Sagami River
(Hiratsuka Research Laboratory)

Regularly held community clean-up activity
(Yokkaichi Plant)

■ Involvement in community activities

We participate in community festivals, blood donation drives, and traffic safety campaigns to encourage interaction with the local community.

Participating in a traffic safety campaign
(Niigata Research Laboratory)

Participating in a festival
(Yamakita Plant)

Initiatives for the next generation

We are working to promote an interest in chemistry through partnerships with educational institutions in the communities surrounding our business sites. For example, we host student visits and internships involving local junior high schools, high schools, technical junior colleges and universities as part of commitment to help develop the next generation.

Since 2008 we have provided junior high schools near our facilities with chemistry kits to make their own pocket heating pads. These kits help students understand the oxidation of iron, which generates heat and makes the pads warm. Since 2011, we have also donated these kits to schools in areas affected by the earthquake. We provided approx. 10,000 kits to 80 schools in FY 2014.

Hosting a student visit from a local university
(Niigata Plant)

Chemistry experiment kits

Environmental and disaster preparedness activities in the local community

To explain our environmental conservation and process safety activities to local communities and deepen mutual understanding, MGC has continued to participate in local dialogue meetings held by the Japan Chemical Industry Association (JCIA).

In addition, we are working together with local communities to promote safety and disaster preparedness through joint drills with fire departments and other means. All of MGC's plants have obtained ISO 14001 certification and continually strive to improve the quality of their environmental management systems.

Local dialogue meeting on Responsible Care for the Okayama district
(Mizushima Plant)

Joint emergency drill
(Kashima Plant)

Together with Our Business Partners

We carry out fair and open procurement activities in full compliance with applicable laws and we are building relationships of trust with our business partners to help build an environmentally-friendly and safety-minded supply chain.

Compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors

All of our business transactions with business partners are in full compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors. Every year we check the entire company for compliance with this important law. We have also created a check sheet to verify the applicability of this law during new business transactions and regularly hold in-house training sessions on the law to ensure complete compliance.

Working with partner companies

We are working closely with the shipping providers of our partner companies to ensure safety during transportation, to enhance logistics quality, and to carry out a modal shift. Additionally, we also carry out audits of our partner companies from the standpoint of compliance and to build more positive, lasting relationships.

Together with Employees

MGC's human resource development

Our people are our greatest asset. MGC maintains "fostering small numbers attentively" as its human resource development policy. Our desire is to create a work environment that fosters each employee as a professional in a system that raises personal intelligence and capacity while furthering individuality.

■ Personnel system

MGC's personnel system is a multi-stream vocational qualification grading system based on management by objectives. Up to the standard age of 28, employees belong to the same basic career path regardless of gender or educational background, and then move on to select courses that will help them in their career. We support all employees equally, providing them with a range of career opportunities in line with individual aspirations that meet their role, achievements and capabilities.

■ Development of human resource capabilities

In order to create an environment for each employee to achieve individual goals, we are working to enhance self-development programs for each rank and sector using tools such as skill-development training and distance education.

Promoting diversity

We are putting effort toward promoting diversity (in terms of different working styles), so that our employees, who themselves are diverse individuals, can display their unique capabilities and approach work with a sense of purpose and meaning.

■ More active role for women and the hiring of foreign nationals

We began hiring women for career track positions in 1991 and recently the number of female managers has been on the rise. We have also created a system allowing shorter working hours and a flex-time system for employees to achieve a balance between childcare and work, which helped boost the rate of employees returning from childcare leave to 100% for three consecutive years.

In addition, we are hiring more employees with international perspectives, regardless of foreign nationality, accompanying the globalization of our business.

▶ See page 8 for specific data.

■ Re-employment of retirees

In response to measures that raise the eligibility age for payments from the public pension program, we have introduced a retiree re-employment scheme to support a life for workers after retirement. Providing all employees the opportunity to continue working* if they are healthy and desire to do so contributes to creating a vibrant workplace.

* 2009 to 2014: The re-employment rate has been 100% for six consecutive years.

▶ See page 23 A for specific data.

■ Employment of people with disabilities

MGC's employment rate for people with disabilities was 2.18% as of the end of FY 2014, which exceeded the legally mandated rate of 2.0%. We will continue working to create a workplace environment that allows people with various disabilities to display their capabilities.

▶ See page 23 B for specific data.

Consideration for work-life balance

We believe that work-life balance is indispensable for job satisfaction. To help promote this idea we have implemented a no-overtime day, encouraged our employees to take their paid leave, and introduced various systems such as flextime as well as a system that allows employees to roll-over expired annual leave.

We continue to enhance our childcare leave and nursing-care leave systems, in addition to a system allowing shorter working hours, to help employees balance work with family life.

▶ See page 23 C and page 24 D, E, F, G for specific data.

Care for mental health

It is important that our employees maintain their physical health, at MGC we have implemented programs to ensure mental health as well. The Employee Assistance Program (EAP) is one of these, in which employees can freely contact external professional institutes by e-mail, telephone or in person to discuss concerns.

In addition, we conduct an annual "mental health" test to assess stress conditions and provide opportunities for self-evaluation while striving to raise stress awareness through workshops. We also conduct mental health training during sessions designed for new employees and employees receiving a promotion.

Together with Stakeholders

Respect for human rights

At MGC, we strictly adhere to our Corporate Behavior Guidelines and MGC Code of Conduct, to respect individual personality and human rights, to not hurt anyone by discriminating against them based on their race, gender, nationality, age, religion or place of origin. We provide separate training courses on human rights for new employees and managers to raise awareness of human rights among all employees. Our Code of Conduct also articulates that sexual harassment and power harassment are prohibited. We are committed to preventing them within our company, and reinforce this principle through training sessions, internal communications and a special consultation desk.

These guidelines and code—along with the four fundamental principles* of the International Labor Organization (ILO)—have been communicated to our Group companies overseas.

* 1. Freedom of association and the effective recognition of the right to collective bargaining; 2. Elimination of all forms of forced or compulsory labour; 3. Effective abolition of child labour; and 4. Elimination of discrimination in respect of employment and occupation.

Support for social contribution activities

We strive to create a work environment where employees are able to engage in a variety of social contribution activities as part of their daily lives. For example, in FY 2009, we introduced paid “volunteer leave” and paid “donor leave” as special paid leave options. We also provide employees with paid leave for public service activities such as participating in the saibanin (jury) system or the Committee for the Inquest of Prosecution.

Union / labor-management relations

Over the years MGC and the Mitsubishi Gas Chemical Workers Union have built up mutual trust and respect between each other based on positive labor-management relations, which allows them to work together to solve various issues. We regularly hold management council meetings to discuss issues related to management, and organize a joint management committee for more specific agendas. Together we have revised the personnel system, the re-employment system, and retirement plans. Other issues such as wages and bonuses are determined through yearly collective bargaining and other negotiations.

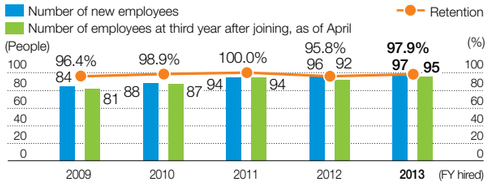
▶ **See page 24 H for specific data.**

Human resources related data

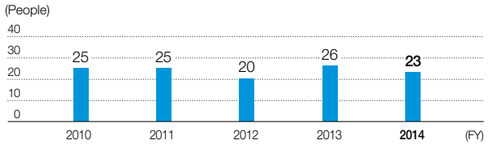
Employee tenure (as of March 31, 2015)

	Male	Female	Total
Average age	41 years old and 3 months	39 years old and 4 months	41 years old and 1 month
Number of years worked	18 years and 4 months	16 years and 5 months	18 years and 2 months

Retention of new employees (third year after joining)

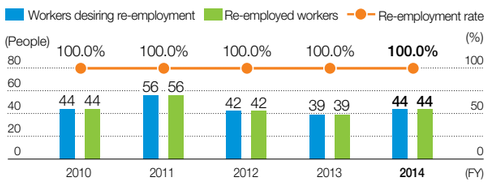


Turnover



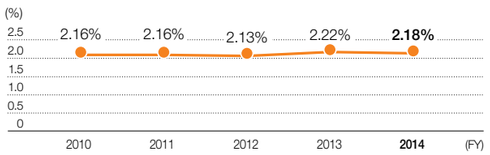
* Number of qualification grade employees and those retiring at their own accord (including completion of leave of absence period, support changing job type, and excluding job transfers)

Re-employment of retirees A

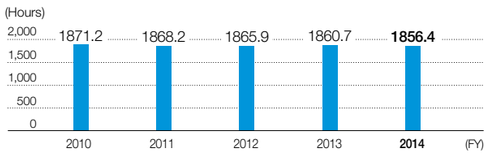


* Fiscal year = end of September + end of March

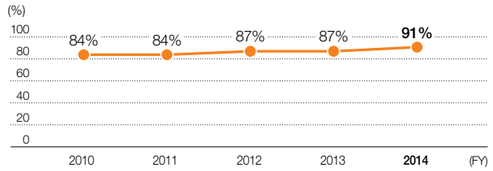
Employment rate for people with disabilities (as of March 31, 2015) B



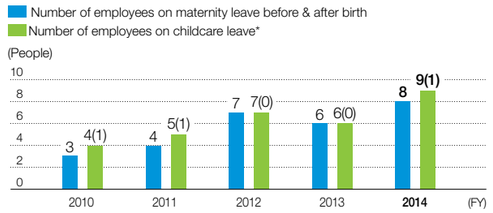
Total annual working hours (average for labour union members) C



Percentage of annual paid leave being taken (average for labour union members) D

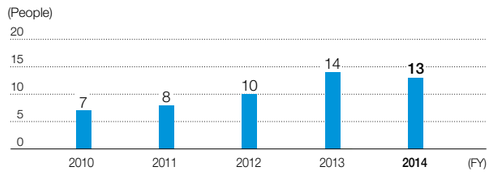


Maternity leave E



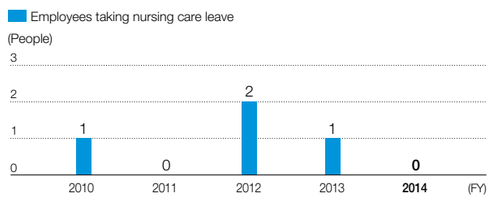
* Parenthesis indicates the number of males who took childcare leave
* For women, the fiscal year of child care leave is determined by the first day of maternity leave.

Number of employees using reduced working hours for childcare F

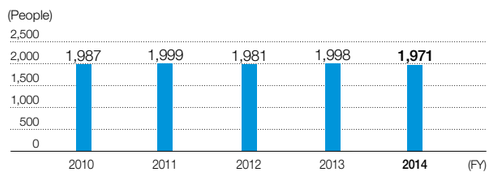


* Number of users during the FY

Number of employees taking nursing care leave G



Number of labor union members (as of December 31, 2014) H



* The participation rate of qualification grade employees due to the union-shop system is 100%.

With Shareholders and Investors

To ensure shareholders and the investment community correctly understands MGC, we strive to disclose information in a fair and transparent manner through information disclosures in accordance with laws and the rules of stock exchanges, the announcement of information on our website or through media outlets, and through reports to shareholders.

Basic policy on profit distribution

Returning profits to shareholders is considered one of MGC’s most important management issues. Distributions are determined by a combination of performance-linked factors and stable dividends, based on a comprehensive analysis of business performance over the medium to long term, capital investment plan, and financial soundness. In FY 2014 our full-year dividend was 14 yen per share.

General meeting of shareholders

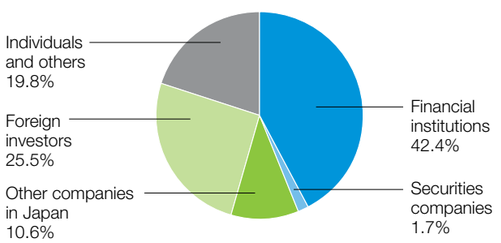
The annual shareholders meeting is held avoiding peak days so that as many shareholders can attend as possible. MCG is also endeavoring to send the convocation notice earlier to give shareholders more time to consider what to vote, and adopt an electronic voting system for better convenience.

Briefings for institutional investors and securities analysts

For institutional investors and securities analysts, we hold earnings briefings, as well as business briefings. In addition, we posted reference material from our earnings briefings, as well as business reports, on our website in an effort to share information about MGC in a timely fashion.

Earnings briefing

Composition of shareholders (as of March 31, 2015)



Environment and Safety Management

Sustainable development, building a recycling-based society, and safe operations are the three critical business challenges that MGC faces. Responsible Care (RC) is our response to both the environmental and safety issues, and has been rolled out in MGC and is understood by the entire Group.

The MGC Group Policies on Environment and Safety

MGC has conducted a review of our Medium-Term Plan and has formulated environmental and safety policies as the RC Medium-Term Plan 2017.

The MGC Group, as an important member of the community, makes an effort to earn social trust by recognizing our responsibility to contribute to the community, to secure the environment and safety of the community, and to put our corporate activities in harmony with the protection of the global environment under the principle of sustainable development.

Environmental and Safety Targets	Zero Accidents, Zero Occupational Injuries, and Environmental Preservation
Fundamental Policies	■ Ensuring health and safety in our operations ■ Ensuring process safety through the improvement of self-maintenance technologies and on-site competency ■ Reduction of environmental impacts and contribution to sustainable social development ■ Ensuring safety in the handling, use, and disposal of chemical products ■ Ensuring environmental conservation and safety in the logistics of obtaining raw materials, and storing and delivering our products ■ Strengthening of relationships with stakeholders ■ Promotion of the MGC Group's environmental and safety activities ■ Continuous improvement of environmental and safety management systems

RC Medium-Term Plan 2017

* The descriptions of distribution safety, dialogue with society, and RC in general have been omitted.

RC Code	RC Medium-Term Plan (2015–2017)
Occupational Health and Safety	**Working toward zero occupational injuries and accidents** ■ Enhance everyday safety activities (KY *(kiken yochi)*: hazard prediction; HH *(hiyari hatto)*: near-miss incidents; the 5Ss; etc.) ■ Enhance communications. ■ Prevent the occurrence of similar occupational injuries and similar incidents. ■ Prevent occupational injuries in partner companies. ■ Perform risk assessments for handled chemicals.
Process Safety and Disaster Prevention	■ Establish a framework for activities (Bridge) to eliminate accidents. ■ Adopt and operate the safety competency assessment system of the Japan Society for Safety Engineering. • Construct frameworks enabling plants themselves to practice PDCA. ■ Strengthen and deepen risk assessment (RA). • Establish activities composed of identification, reduction, and periodical review of risks. ■ Establish PDCA in education at business sites, including OJT. ■ Analysis and horizontal communication of case studies from other companies, past case studies, HH case studies, etc. ■ Enhance disaster readiness framework. ■ Enhance equipment management and improve self-maintenance technologies. ■ Formulate "MGC Standards" safety standards applicable to the entire MGC Group.
Environmental Preservation	■ Reduce energy consumption intensity to below 85% of the FY 1990 level. • Implementation of energy saving measures and reduction of equipment problems. ■ Reduce greenhouse gas emissions intensity to below 72% of the FY 1990 level. ■ Reduce emissions of PRTR substances by 10% compared with FY 2014. ■ Maintain zero emission of wastes (Zero emissions at MGC: Final disposal of generated wastes to 0.3% or less by weight). ■ Reduce generated waste volume by 10% compared with FY 2014. ■ Promote initiatives related to conservation of biodiversity. ■ Formulate methods for evaluation of environmentally friendly products.
Chemical and Product Safety	■ Provide up-to-date safety information on handled chemical products and incorporate information into SDSs (safety data sheets). ■ Risk management for handled chemical products. • Participate in JIPS.* • Risk management for new products. ■ Adapt to EU REACH regulations and other overseas regulations.

* **JIPS:** Japan Initiative of Product Stewardship, a voluntary initiative advanced by the Japan Chemical Industry Association (JCIA) for strengthening chemical product management. JIPS is the Japanese version of the GPS (Global Product Strategy) international voluntary initiative for chemical product management.

Message from the Director in Charge of Environment and Safety

Kenji Inamasa
Managing Executive Officer

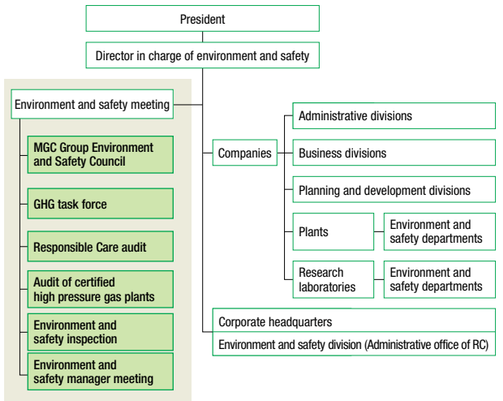
MGC has continued its initiatives under the RC Medium-Term Plan 2014 to foster a culture of safety and achieve zero occupational injuries and accidents. During the fiscal year, we are pushing forward with the initiatives of our working groups at each plant and undertook initiatives aimed at improved communication, upgraded equipment, and enhanced on-site competency. As a result, we continued our record of no loss time occupational injuries in both 2013 and 2014. While our occurrence of abnormal phenomena is on a declining trend, we did not achieve full elimination, and are further strengthening initiatives. In terms of the environment, we are continuing our efforts to set and meet the numerical targets in each area of: reduction of emissions of chemical, reduction of industrial wastes, and energy saving measures. As a result, we have been able to cut the amount of PRTR substances and VOCs.

In recent years, major accidents continued to occur in the chemical industry. We are carrying out risk assessment at each business site to determine the likelihood of similar accidents occurring at MGC. We are working to identify areas of danger and hazardous processes, and pushing forward with corresponding prevention measures. In order to foster a culture of safety, we have adopted the Guidelines for Prevention of Chemical Plant's Accidents published by the Japan Chemical Industry Association and the safety competency assessment system of the Japan Safety Competency Center, which was established in April 2013 by the Japan Society for Safety Engineering, and are strengthening associated initiatives.

The MGC initiatives described here have brought real results, though they are still not entirely sufficient. We conducted a review of our RC Medium-Term Plan 2014 and addressed its areas of insufficiency to formulate the RC Medium-Term Plan 2017. Under this plan, MGC will aim to be a "superior and distinctive chemical company," as we continue our initiatives toward safe and secure production.

Responsible Care Promotion System

All of MGC's divisions, at both the segment and corporate level, follow fundamental environmental and safety principles that promote Responsible Care. Every December, MGC holds environment and safety meetings, which are chaired by the President and consist of all executive officers, division heads, and plant managers. MGC also takes steps to make continuous improvements in the PDCA cycle based on the RC Medium-Term Plan targets and annual activity targets.



RC Audits in 2014

The director in charge of environment and safety, together with an auditing team, conducts the RC audit. This audit assesses the implementation status of RC action plans at each of our sites while deciding upon and auditing high importance audit items for the year.

In 2014, we audited the status of initiatives to strengthen on-site competency, the enforcement of accident prevention of plants (identification and reduction risks associated with abnormal reactions, explosions/fires, and emergency shutdowns), the status of chemical and reagent operational management, and the strengthening and reliable operation of frameworks for RC education and training.

- **Audit period**
  July – September, 2014
- **Auditees**
  5 plants, 3 laboratories (including Tokyo Techno Park), business divisions of 4 segments, Purchasing & Logistics Center
- **Audit findings**
  Full conformity (34 cases) Non-conformity (no cases) Improvement orders (11 cases) Comments (30 cases)
- **Follow-up issues identified in previous year**
  We audited the handling of items identified at workplaces in the previous year to confirm that proper measures have been taken.

Audit (Kashima Plant)

Results and Plans for RC Activities at MGC

★★★: Achieved ★★: Mostly achieved ★: Further efforts required

	RC Medium-Term Plan 2011–2014	2014 RC Action Plan		2014 Achievements	Assessment	2015 RC Action Plan
Occupational Health and Safety	Working toward zero occupational injuries and accidents ■ Establish a culture of safety. • Enhance communications. • Eradicate human error. • Identify fundamental causes of accidents and occupational injuries, and undertake active measures to improve equipment. ■ Enhance voluntary process safety inspections. ■ Enhance joint disaster readiness framework with neighboring affiliates.	We will continue with our daily activities (hazard prediction activities, *Hiyari-Hatto* [near miss] identification activities, and the 5S activities) and risk assessments, while ensuring enhanced communication and that all employees work toward achieving zero occupational injuries and accidents. Specific details are as follows: 1. Continue daily activities (hazard prediction activities, *Hiyari-Hatto* [near miss] identification activities, 5S activities). 2. Prevent accidents and occupational injuries by reinforcing our on-site competency. 3. Continue to thoroughly pursue the elimination of plant accidents. (Identify and reduce risk from abnormal reactions, explosions/fires, and risk occurring during emergency equipment shutdown.) 4. Enhance communication and link communication to eradication of human error. 5. Establish emergency response system, including neighboring affiliates, partner companies and fire departments. 6. Continue to pursue activities for preventing occupational injuries at partner companies. (Enhance facility upgrades, support for the training of partners' employees, and communication with partners.)		Occupational injuries at MGC have declined significantly (from 9 to 2 accidents not accompanied by lost worktime), and we have achieved zero loss time occupational injuries for two years straight. However, the number of occupational injury incidents at our partner companies has stopped declining, and the number of occupational injury incidents resulting in lost time has increased from the previous year. There have also been occurrences of similar accidents. The occurrence of abnormal phenomena declined significantly from the previous year, from 10 to 5 incidents, but we have yet to achieve zero occupational accidents. 1. As everyday activities, we continued our practice of hazard prediction prior to work, identification and response to *Hiyari Hatto* [near-miss], and practice of 5S activities. We worked to prevent occupational accidents and injuries through means including the implementation of risk assessments for identified sources of risk. 2. We worked to improve on-site competency through original methods at all business sites. Business sites that practice Total Product Maintenance activities engaged in strengthening of activities, description of Know-Why in standards manuals, e-learning-based education, improvement of safety handbooks, the use of trouble diaries, and other activities. At the Yamakita Plant and Mizushima Plant, we have also begun adoption of the safety competency assessment system, which aims for self-diagnosis of on-site competency and self-operation of PDCA. 3. We performed reviews of whether plants are able to perform emergency shutdowns safely and whether safety remains ensured over time, and undertook responses to issues that were discovered. At the Mizushima Plant, Niigata Plant, and Kashima Plant, we began work on risk assessments from the approach of not only emergencies but also unsteady situations. At the same time, to make plants stable and ensure safety, under the leadership of the Production Technology Division we worked on activities that included reducing the number of alarms and tasks, and education and training for key persons involved in stabilizing plant operation. We have identified risks and undertaken countermeasures by applying the Guidelines for Prevention of Chemical Plant's Accidents of the JCIA, to horizontally communicate information on major accidents in the chemical industry. 4. We held seminars as a means of preventing human error, and promoted our adoption of "point-and-call" activities, working to entrench the practice at specified locations. At the Yokkaichi Plant, we confirmed the reduction of *Hiyari-Hatto* [near miss] incidents and accidents caused by human error. 5. We conducted joint disaster prevention training, together with affiliated companies, partner companies and firefighters. We worked to improve our ability to respond to emergencies by carrying out unannounced drills, as well as drills envisioning blackout during a power outage and night-time incidents on non-working days. 6. We worked to raise our safety level through regular liaison meetings with partner companies, safety education for entry into facilities (including examinations), and regular safety education. Our two-term, six-year Accident Zero Project (AZ activity) ended in March 2014. The activity lives on under a slightly reformed framework within our Bridge activity, through which we are bringing the results and issues of the AZ activity into everyday safety activities. This year, we also held a company-wide safety presentation meeting for the first time, presenting case studies of improvement at business sites under the AZ activity (Phase II) and horizontally communicating the case studies across the company.	★ ★	To achieve the targets of the RC Medium-Term Plan 2017, we will firmly establish the safety culture that was fostered through the AZ activity in which all employees took part, and will share this culture with partner companies to eliminate industrial accidents. 1. Steadily continue daily safety activities (hazard prediction, *Hiyari Hatto* [near miss] incidents, 5Ss) to prevent these from becoming routine and stagnant. 2. Enhance communication within business sites. 3. Analysis of past case studies, case studies from other companies, HH case studies, etc. and horizontal communication of these to prevent the occurrence of similar incidents. 4. Activities to prevent occupational injuries at partner companies • Improve equipment, support education, conduct risk assessment in work and construction, enhancement communication, etc. 5. Conduct surveys of risks and hazards to workers from chemical substances (adapt to the Amendment of the Industrial Safety and Health Law).
Process Safety and Disaster Prevention						Work toward the strengthening of on-site competency and safety competency, and the elimination of accidents and irregularities. 1. Establish the Bridge framework. 2. Adopt the safety competency assessment system of the Japan Safety Competency Center. 3. Enforce risk assessments for unsteady situations (emergencies, startup, shutdown, operation errors, personnel changes, etc.) 4. Steadily implement RC education and training according to education guidelines. Enhance education and training (improvement of operational capability and emergency response capability). 5. Prevent the occurrence of similar accidents through analysis of our and other companies' past case studies (use of the Guidelines for Prevention of Chemical Plant's Accidents of the JCIA, etc.) 6. Enhance our disaster readiness framework. 7. Enhance equipment management and preparation for renewal of high pressure gas certification (NF). 8. Consider MGC Safety Standards (Head Office).
Environmental Preservation	■ Reduce the energy consumption intensity to below 85% of the FY 1990 level. • Implement energy saving measures and reduction of equipment problems. ■ Reduce greenhouse gas emissions intensity to below 75% of the FY 1990 level.	We will plan and formulate goals for each business site in order to achieve our medium-term targets. Specific details are as follows: 1. Advance energy saving measures while reducing equipment troubles to assure stable operation, and improve our energy consumption intensity and greenhouse gas emissions intensity. In particular, establish concrete measures for workplaces at which steam trap check-ups and steam equipment energy conservation check-ups were performed.		Led primarily by the Production Technology Division and the GHG Task Force. 1. FY 2014 energy consumption intensity was 95% that of FY 1990, and GHG emissions intensity was 81% that of FY 1990. Among the approximately 50 energy efficiency- measures we implemented, we reduced the use of heat from reactor devices; made thorough use of steam, which earlier had been released into the atmosphere, as a heat source; switched the motors pumps and ventilation machinery to use inverters; and employed high efficiency transformers. The energy-saving results of these measures brought a crude oil equivalent reduction of 8,700 kL, and a reduction in GHG emissions equivalent to approx. 12,000 tons of CO_2.	★ ★	Undertake social contribution through the environment, while continuing to reduce environmental impacts. 1. Improve our energy consumption intensity and greenhouse gas emissions intensity. • Promote energy saving measures. • Stably operate through the reduction of equipment problems.
	■ Reduce emissions of PRTR substances and VOCs. • Focus reductions on substances with high emissions volumes.	2. Set priorities for reducing emission volumes of PRTR substances and VOCs for each business site, and draft and enact reduction plans with clear target values.		2. We implemented reduction plans at business sites with high emissions. The substances addressed were 1,2,4-trimethyl benzene and xylene. Our performance with respect to PRTR substances on the Japan Chemical Industry Association's list was a reduction of about 1.6% from the previous year, and a reduction of about 45% from our emissions in FY 2010. We reduced VOC emissions by about 16% from the previous year, and about 51% from FY 2010.	★ ★ ★	2. Adapt to the PRTR Law. • Business sites will specify substances with high levels of emissions as key substances, and will draft and execute reduction plans for these.
	■ Achieve zero emissions of waste. ■ Workplaces that achieve zero emissions will further reduce their final disposal volume.	3. Continue to achieve zero emissions of waste. Set a final landfill reduction target for each business site and strive to achieve even lower waste landfill.		3. We achieved zero emissions at 8 of our 10 business sites (production sites and research labs). At 1 business site (the Mizushima Plant), however, a one-time generation of waste resulted from business decommissioning, and the final disposal volume of 968 tons was over 11 times that of the previous fiscal year. The zero emissions rate for MGC overall was 1.19%, meaning that our record of zero emissions continued from FY 2008 to FY 2013.	★	3. Continue zero emissions initiatives. • Maintain low levels of final disposal of wastes. • Work to reduce our volume of generated wastes. 4. Initiatives toward the preservation of biodiversity. • Actively participate in and cooperate with nature conservation and environmental beautification activities near our business sites. • Consider specific activities for the preservation of biodiversity. (Head Office Environment and Safety Division) 5. Consider methods for evaluation of environmentally friendly products. (Head Office Environment and Safety Division)
Chemical and Product Safety	■ Provide product safety information. • Reflect up-to-date information in safety data sheets (SDSs).	We will carry out risk assessments on products. Specific details are as follows: 1. Reflect up-to-date product safety information in SDSs (MSDSs). • Provide accurate information on hazards to customers, etc. • Comply (by December 2015) with new JIS (JIS Z 7253) for SDSs. • Reexamine and put to use the SDSs/label management system.		1. We created 38 new SDSs and revised 170 to reflect up-to-date information. • We provided the most up-to-date information through the newly created or revised SDSs. • We established a system enabling understanding of the status of revisions, and advanced the adaption of SDSs to the new JIS Z7253 standard. As a result, we adapted about half of our SDSs to the new JIS standard.	★ ★ ★	We will carry out risk management of products. 1. Provide up-to-date information through SDSs. • Comply with new JIS (JIS Z 7253) for SDSs (with completion by December 2015). • Acquire and disseminate the latest versions of raw material SDSs.
	■ Conduct product risk management. • Perform risk evaluation and risk reduction. • Adapt to overseas regulations for product risk management. • Conduct appropriate assessment of new products. ■ Promote development of products with lower environmental impact and energy saving technologies.	2. Implement in-house education on risk evaluation. 3. Set implementation plans for risk evaluation. (Promote safety assessment during new product development.) 4. Adapt to and support overseas laws and regulations.		2. We provided training on risk assessment as a form of product liability training, targeting all business sites. 3. We created an evaluation form in accordance with the Japan Initiative of Product Stewardship (JIPS) of the JCIA. We conducted 59 cases of in-house safety testing for new products in 2014; 37 related to acute toxicity (including 22 simple toxicity tests), 10 to the Ames test, and 12 to primary skin irritation. (Last year, these numbers were 15, 11, and 12 cases respectively, for a total of 38 cases.) 4. With regard to EU REACH regulations, we made preparations for the 2018 registration deadline for substances (about 50 substances), conducted additional tests of substances registered in 2010, and advanced protective procedures (compliance) for EU customers.	★ ★ ★	2. Risk management of handled chemical products. • Participate in the JIPS initiative of the JCIA and creation of safety abstracts. • Promote risk assessment for new products. 3. Adapt to REACH regulations. • Adapt to EU REACH regulations. • Adapt to regulations of non-EU countries. 4. Reinforce management of chemical reagents.

Occupational Health and Safety, Process Safety, and Disaster Prevention

MGC's top priority is to ensure safety, and we have a proactive approach aimed at zero accidents and zero occupational injuries.

Safety Philosophy

Ensuring safety is the top priority of our business activity. Safety is the basis of our business activity and ensuring safety is our duty to society.

Occupational Health and Safety Initiatives

To achieve our objective of no occupational injuries, our workplaces continuously engage in everyday safety activities such as 5S activities, hazard prediction, and proposals to address near-miss incidents. Our worksites also advance various safety activities such as safety-related education and drills, and occupational health and safety risk assessments.

Safety Assembly
(Niigata Plant)

KYT training
(Mizushima Plant)

Forklift course
(Yokkaichi Plant)

Basic lifesaving training
(Yamakita Plant)

Workshop led by young employee instructors
(Niigata Research Laboratory)

Risk experience simulation (entanglement)
(Hiratsuka Research Laboratory)

Safety performance

In 2014, occupational injury incidents resulting in lost time totaled zero cases at MGC, and one case at partner companies.

Change in lost time injury frequency rate*1

	2010	2011	2012	2013	2014
MGC	0.28	0.54	0.80	0	0
Chemical industry	0.72	0.88	0.85	0.82	0.76
Manufacturing industry	0.98	1.05	1.00	0.94	1.06

*1 **Frequency rate:** Number of occupational injury casualties per one million working hours

Change in lost time injury severity rate*2

	2010	2011	2012	2013	2014
MGC	0.01	0.01	0.03	0	0
Chemical industry	0.04	0.04	0.12	0.12	0.17
Manufacturing industry	0.09	0.08	0.10	0.10	0.09

*2 **Severity rate:** Number of lost working days per 1,000 working hours

Preventing occupational injuries at partner companies

We share information on occupational injuries, perform risk assessments, provide safety education, and carry out joint disaster reduction training aimed at industrial accident prevention in partner companies, while we work to enhance our cooperative frameworks. In some plants, we also conduct audits and safety inspections of partner companies.

Regular Maintenance Safety Assembly
(Kashima Plant)

Joint patrols with partner companies
(Tokyo Techno Park)

Process Safety and Disaster Prevention Activities

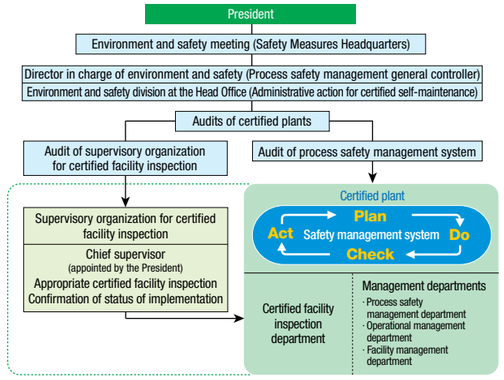
To prevent the occurrence of accidents and injuries, it is important to continue stable operation by ensuring safety of production processes and soundness of equipment. In each plant, we conduct checks and make renewal plans, and according to priority depending on risk and the importance of facilities, push forward checks, repairs, and renewal sequentially.

Considering the fact that explosions and fires continue to break out in the chemical industry, we continue to identify risks through comprehensive inspections of facilities and production processes, including emergency shutdown, to determine the likelihood of similar accidents occurring at MGC, and subsequently implement risk reduction measures.

Certified high pressure gas plants

Niigata Plant and Mizushima Plant, which are high pressure gas safety management code certified plants, are audited by the Director in charge of environment and safety (Process Safety Management General Controller) under the company rules for "High pressure gas certification safety management". The aim of our audits is to objectively evaluate the high pressure gas safety management system and the certified inspection management framework to ensure that they are working effectively.

Certified process safety management system for high pressure gas



Responding to emergencies

In preparation for accidents, we establish a self disaster readiness framework at each business site and carry out various disaster reduction drills according to sites' annual plans.

Sandbag stacking drills
(Mizushima Plant)

Fire hose drills
(Yokkaichi Plant)

Fire hose drills
(Niigata Research Laboratory)

Press conference drills
(Hiratsuka Research Laboratory)

Accident Elimination (Bridge) Activities

Under the company-wide AZ (Accident Zero) Project to eliminate accidents, from 2008 to 2013 MGC engaged in activities centered on the strengthening of process safety, safety education, and communication in plants and research laboratories. Through this project, we succeeded in steadily reducing accidents and occupational injuries.

From FY 2014, we are working through the local safety and disaster prevention subcommittee in each plant to strengthen related activities. We are doing so under the label Bridge activities, through which we seek to carry forward the achievements of the AZ Project. We continue to undertake activities with improvement of "on-site competency" in individuals and organizations and prevention of equipment and operational problems through cooperation with the Production Technology Division as key policies. At the same time, our Environment and Safety Division and Production Technology Division are cooperating to continue support for accident and trouble countermeasures at plants.

In fiscal 2014, we also identified weaknesses in plants and manufacturing departments by applying the safety competency assessment system of the Japan Society for Safety Engineering to these, and overcame the weaknesses by taking these up as themes for improvement. The members of our local safety and disaster prevention subcommittees also conducted activities to resolve issues specific to each plant with the perspective of the frontline in mind. With regard to the addressing and "visualizing" of on-site issues through means including TPM* activities and education on equipment management, we worked to share good practices across the company.

Across the entire company, we worked to enhance information exchange and communication extending across business sites, through means including company-wide safety presentations and company-wide networking of accident reporting systems.

* TPM (Total Productive Maintenance) refers to improvement of production with the participation of all personnel.

Local survey by the Japan Safety Competency Center
(Niigata Plant)

TPM consultant instruction meeting
(Kashima Plant)

Company-wide safety presentations

Results of Environmental Preservation Initiatives under the RC Medium-Term Plan 2014 (MGC alone)

The results of initiatives aimed at achieving the targets of the RC Medium-Term Plan 2014, for MGC alone, are summarized below.

Environmental Preservation

■ **Reduce energy consumption intensity to below 85% of the FY 1990 level.**

• Implement energy saving measures and reduction of equipment problems.

Energy consumption intensity for MGC alone in FY 2014 was 95% the level of FY 1990. (FY 2013: 91% of FY 1990 level)

▶ **See pp. 35–36 for details.**

■ **Reduce greenhouse gas emissions intensity to below 75% of the 1990 level.**

GHG emissions intensity for MGC alone in FY 2014 was 81% the level of FY 1990. (FY 2013: 76% of FY 1990 level)

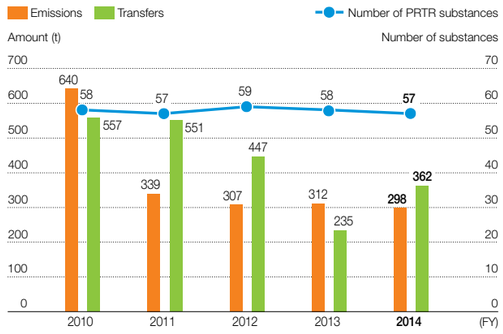
▶ **See pp. 35–36 for details.**

■ **Promote reductions in PRTR substances and VOC emissions.**

• Focus reductions on substances with high emissions volumes.

PRTR substance emissions volume for MGC alone was 46% the level of FY 2010.

Performance in PRTR substances (MGC alone), by fiscal year



The significant reduction in emissions was due to the installation of devices for the recovery of 1,2,4-trimethylbenzene (a Class I Designated Chemical Substance under the PRTR Law revision of 2009) in equipment vents, and subsequent reduction of emissions into the atmosphere.

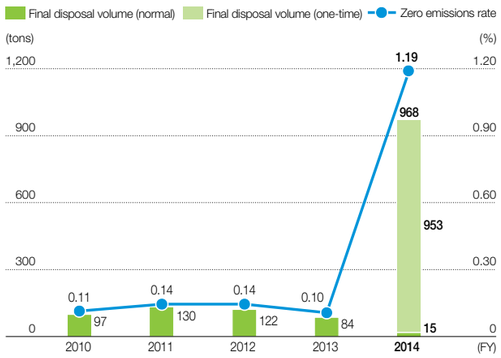
■ **Achieve zero emissions of waste.**

■ **Workplaces that achieve zero emissions will further reduce their final disposal volume.**

For MGC alone, we have defined zero emissions as a final disposal volume of 0.3% or less of generated waste volume, and are working to reduce wastes.

The zero emissions rate for MGC overall in FY 2014 was 1.19%, meaning that our record of zero emissions continued from FY 2008 to FY 2013.

Final disposal volume and zero emissions rate



The increase in final disposal volume in FY 2014 was due to a one-time increase in disposal volume of unneeded items accompanying a partial decommissioning of business at the Mizushima Plant.

At each of 8 other business sites, we continued to achieve zero emissions and are further reducing final disposal volume.

Environmental Accounting (MGC alone)

Through environmental accounting, MGC has quantitatively calculated and released the costs of environmental preservation and the real economic effects associated with our business activities.

Environmental Preservation Cost

The cost of environmental preservation activities includes the investment costs of installing facilities to reduce environmental impacts, as well as the expenses for running and managing those facilities and for research and development into environmentally friendly products.

■ **Investments**

The total of investment in environmental preservation activities in FY 2014 was 870 million yen. The main items of that investment were the enhancement of dust collectors at the Mizushima Plant and the enhancement of wastewater processing equipment at the Niigata Plant.

■ **Expenses**

Total expenses related to environmental conservation activities in FY 2014 were 8.3 billion yen. Of these, the highest expense was 2.7 billion yen for research and development, accounting for 32% of the total. The next highest was 1.6 billion yen for costs associated with prevention of water pollution, representing 20% of the total.

Benefits of Environmental Preservation Activities

In addition to the reduction in the environmental impact that resulted from our environmental preservation efforts, we realized positive economic benefits, such as income from the sale of waste products and reduction of expenses through energy saving.

■ **Environmental preservation benefits**

From FY 2010 to FY 2014, we significantly reduced our emissions of chemical substances targeted under the PRTR Law.

▶ **See p. 31 for our performance numbers.**

■ **Economic benefit**

Expenses reduced through energy saving, and income earned by handling unneeded items generated in our business activities as valuable waste, generated real economic benefit.

Economic benefit

Title	Item	Amount (millions of yen)
Income	Profit on sale of valuable waste, etc.	32.3
Reduction of expenses	Effects due to energy saving	635.1

Environmental preservation cost (Breakdown of investment and cost by business)

Breakdown			Main areas of activity	(millions of yen)	
				Investment	Expenses
Onsite cost	Pollution prevention cost	Air pollution prevention	Enhancement, catalyst renewal, and maintenance of emission gas recovery equipment	84.4	665.5
		Water pollution prevention	Installation, reinforcement, and maintenance of wastewater treatment facilities and measuring equipment	93.9	1,661.3
		Soil, Noise	Prevention of soil infiltration; noise prevention measures	42.6	0.0
	Global environmental preservation cost		Installation of new heat recovery equipment and replacement of lighting with LED lighting	278.6	1,612.9
	Resources recycling cost		Material and thermal recycling of waste	2.7	934.7
Up or down stream cost			Retrieval and reuse of product containers; yellow card management	0.0	98.9
Management activity cost			Maintenance of green spaces and environmental-related analysis	51.6	568.8
R&D cost			Research and development of energy-saving technologies and environmentally friendly products	323.9	2,733.0
Social contribution cost			Greening of surrounding areas; support for environmental conservation organizations	0.0	8.1
Environmental damage cost			Pollution impacts levy	0.0	80.4
Total				877.8	8,363.6

Compliance with the Ministry of the Environment's Environmental Accounting Guidelines 2005

Period: From April 1, 2014 to March 31, 2015

Scope: MGC only

Methods: Investments are proportionally related to the approved or enforced amount of capital expenditure to environmental preservation. Expenses are proportionally related to the ratio of environmental preservation and include depreciation allowance.

Environmental Impacts Accompanying Business Activities
(Domestic MGC Group)

Member companies of the MGC Group Environment and Safety Council in Japan carry out activities to reduce environmental impacts in accordance with the MGC Group's fundamental environmental and safety principles. The table below displays the environmental impact of the MGC Group's operations in FY 2014.

Total for the Domestic MGC Group*1

FY 2013*2	FY 2014
Sites tabulated: 65	Sites tabulated: 66

INPUTS	Units	FY 2013	FY 2014
Energy consumption including purchased electricity (crude oil equivalent)	1,000 kL	661	605
Water usage			
Tap water	1,000 m^3	1,313	1,251
Industrial water	1,000 m^3	25,933	24,582
Groundwater	1,000 m^3	1,506	1,395
River water	1,000 m^3	13,340	10,660
Others	1,000 m^3	1,239	1,250
Total water consumption	1,000 m^3	43,330	39,133

OUTPUTS	Units	FY 2013	FY 2014
Emissions to atmosphere			
Greenhouse gas emissions (CO_2 equivalent)	1,000 tons	1,586	1,456
SOx emissions	tons	147	66
NOx emissions	tons	746	669
Soot and dust emissions	tons	26	17
Released to water area			
Drainage volume	1,000 m^3	62,020	42,298
COD emissions	tons	256	266
Total nitrogen emissions	tons	338	447
Total phosphorus emissions	tons	65	38
Generation of waste			
Amount generated	tons	169,658	139,989
Amount recycled (including amount sold)	tons	43,174	40,089
Transfer to off-site	tons	38,097	36,130
Final disposal	tons	5,209	3,309
Notified substances under PRTR Law			
Emissions (air)	tons	1,553	1,452
Emissions (water)	tons	25	20
Emissions (soil)	tons	0	0
Total amount emitted	tons	1,578	1,472
Total amount transferred	tons	899	868

MGC Alone

FY 2013*2	FY 2014
Sites tabulated: 13	Sites tabulated: 13

INPUTS	Units	FY 2013	FY 2014
Energy consumption including purchased electricity (crude oil equivalent)	1,000 kL	547	507
Water usage			
Tap water	1,000 m^3	723	722
Industrial water	1,000 m^3	22,302	21,397
Groundwater	1,000 m^3	365	387
River water	1,000 m^3	13,340	10,660
Others	1,000 m^3	936	934
Total water consumption	1,000 m^3	37,666	34,099

OUTPUTS	Units	FY 2013	FY 2014
Emissions to atmosphere			
Greenhouse gas emissions (CO_2 equivalent)	1,000 tons	1,307	1,223
SOx emissions	tons	76	53
NOx emissions	tons	673	600
Soot and dust emissions	tons	22	10
Released to water area			
Drainage volume	1,000 m^3	34,803	33,394
COD emissions	tons	194	238
Total nitrogen emissions	tons	316	428
Total phosphorus emissions	tons	61	35
Generation of waste			
Amount generated	tons	86,012	81,172
Amount recycled (including amount sold)	tons	22,722	20,971
Transfer to off-site	tons	6,326	8,222
Final disposal	tons	84	968
Notified substances under PRTR Law			
Emissions (air)	tons	298	284
Emissions (water)	tons	15	15
Emissions (soil)	tons	0	0
Total amount emitted	tons	312	298
Total amount transferred	tons	235	363

*1 The total for the domestic MGC Group is the sum of environmental impact data for the main domestic manufacturing and processing businesses (member companies of the MGC Group Environment and Safety Council; see pages 43 to 46) and MGC itself (production sites such as plants and non-production sites such as laboratories and sales offices, with training centers and company-owned recreation facilities together treated as one site).
The environmental impact data shown here captures over 90% of the scope of consolidated accounting for the MGC Group in Japan.
*2 FY 2013 data may appear differently in CSR Report 2014 because it has been revised.

Environmental Impacts Accompanying Business Activities
(Overseas MGC Group)

With respect to MGC Group companies sited overseas, MGC surveys and compiles environmental impact data for those companies that engage in manufacturing.

We targeted 8 companies and 9 sites in the CSR Report 2014, expanding this to 12 companies and 14 sites in the CSR Report 2015.

Not all sites had data available for some of the item categories. In the future, we will increase the number of companies for which we compile data and will further enhance the surveys.

Overseas MGC Group Companies

2013*2	2014
Sites tabulated: 14*3	Sites tabulated: 14*3

INPUTS	Units	2013	2014
Water usage			
Tap water	1,000 m^3	242	264
Industrial water	1,000 m^3	3,448	3,545
Groundwater	1,000 m^3	4,734	7,855
River water	1,000 m^3	0	0
Others	1,000 m^3	903	886
Total water consumption	1,000 m^3	4,599	4,703

OUTPUTS	Units	2013	2014
Emissions to atmosphere			
Greenhouse gas emissions (CO_2 equivalent)	1,000 tons	346	364
Released to water area			
Drainage volume	1,000 m^3	3,459	3,877
Generation of waste			
Amount generated	tons	9,512	10,239
Amount recycled (including amount sold)	tons	5,869	7,020
Final disposal	tons	2,035	1,790
Notified substances under PRTR (TRI) Law			
Emissions (air)	tons	110	73
Emissions (water)	tons	26	26
Emissions (soil)	tons	0	0
Total amount emitted	tons	136	98
Total amount transferred	tons	281	249

*3 Targeted companies: TE AN LING TIAN (NANJING) FINE CHEMICAL CO., LTD.; MGC ADVANCED POLYMERS, INC.; MGC PURE CHEMICALS AMERICA, INC.; MGC PURE CHEMICALS SINGAPORE PTE. LTD.; MGC PURE CHEMICALS TAIWAN, INC.; P.T. PEROKSIDA INDONESIA PRATAMA; SAMYOUNG PURE CHEMICALS CO., LTD.; AGELESS (THAILAND) CO. LTD.; KOREA ENGINEERING PLASTICS CO., LTD.; MITSUBISHI GAS CHEMICAL ENGINEERING-PLASTICS (SHANGHAI) CO., LTD.; THAI POLYACETAL CO., LTD.; THAI POLYCARBONATE CO., LTD.

Preservation of Biodiversity
(MGC alone)

MGC is a signatory and promotional partner to the Keidanren (Japan Business Federation) Declaration of Biodiversity.

Endorsing the aims of the Keidanren (Japan Business Federation) Declaration of Biodiversity of 2009, MGC has signed on as a promotional partner of the Declaration.

In 2014, MGC became a member of the Keidanren Nature Conservation Committee with the aim of engaging in activities to protect the natural environment and conserve biodiversity.

7 Clauses of Keidanren's Declaration of Biodiversity

1. Appreciate nature's gifts and aim for corporate activities in harmony with the natural environment
2. Act from a global perspective on the biodiversity crisis
3. Act voluntarily and steadily to contribute to biodiversity
4. Promote corporate management for sustainable resource use
5. Create an industry, lifestyle, and culture that will learn from biodiversity
6. Collaborate with relevant international and national organizations
7. Spearhead activities to build a society that will nurture biodiversity

The chemical industry is continuing its efforts to reduce the impacts of its business activities on the natural environment through means including chemical product management, environmental preservation, and resource and energy conservation, based on responsible care activities conducted globally.

In order to achieve sustainable social development while benefiting from the bounty of the natural environment, MGC will continue working toward the maintenance of an abundant natural environment and the preservation of biodiversity, through the steady execution of responsible care and the development of environmentally friendly products and technologies.

Initiatives for the Prevention of Global Warming (MGC alone)

At MGC, each sector—manufacturing, transportation, office and residence—is making efforts to prevent global warming.

FY 2014 energy consumption and greenhouse gas (GHG) emissions for all of the company's business activities were as follows. Emissions from plants' manufacturing divisions account for 97% of greenhouse gas emissions.

	Energy consumption (1,000 kL crude oil equivalent)	Greenhouse gas emissions (1,000 tons-CO_2 equivalent)
Plant Manufacturing Division	491.1	1,184.4
Transportation Sector (shipper)	9.7	25.7
Office Area	6.1	12.3
Business activities overall	**506.9**	**1,222.5**

Manufacturing Plant Initiatives

Under the following numerical targets for our plant manufacturing divisions, we have worked to reduce energy consumption and GHG emissions.

Energy consumption intensity*1:

Reduce to 85% or lower compared with FY 1990 levels by FY 2014

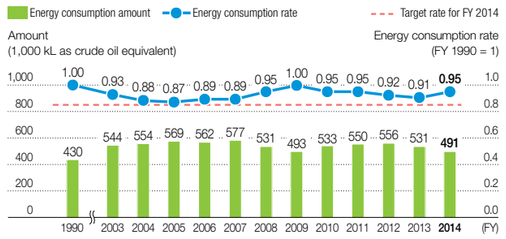
GHG emissions intensity*2:

Reduce to 75% or lower compared with FY 1990 levels by FY 2014

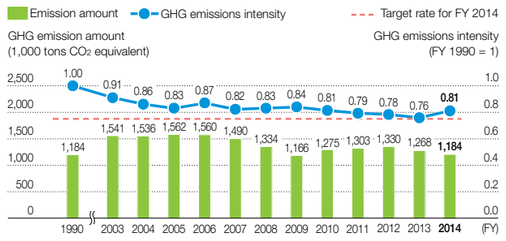
*1 **Energy consumption intensity:** The amount of energy consumption per unit of production volume

*2 **Greenhouse gas emissions intensity:** The amount of GHG emissions per unit of production volume

Change in energy consumption amount and consumption rate



Change in GHG emissions and GHG emissions intensity



Under the impact of decreased production, in FY 2014 our energy consumption and GHG emissions each declined by 7%. However, we were unable to achieve the numerical targets we have set for energy consumption intensity, which worsened by 4.8% to reach 95% of the level of FY 1990. Similarly, GHG emissions intensity worsened by 6.8% to reach 81% of the level of FY 1990.

We implemented over 50 energy conservation measures, including collecting and using by-product gases, recovering heat from exhaust gases, switching over to higher efficiency exhaust gas cracking furnaces, recovering unused energy during decompression, reducing heat usage in reactor equipment, and switching to LED for street lighting. The energy-saving effect of these measures has reached the equivalent of 10,000 kL of crude oil, with a GHG emissions reduction effect equivalent to 19,700 tons of CO_2.

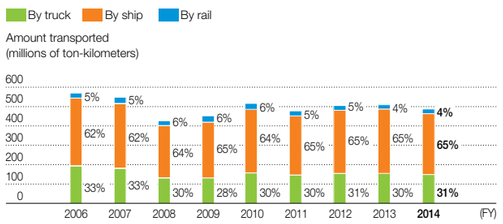
Looking ahead, we are planning measures that include increased efficiency in freezers, decreased usage of city gas for incinerators, and effective use of excess steam.

Initiatives in the Transportation Sector

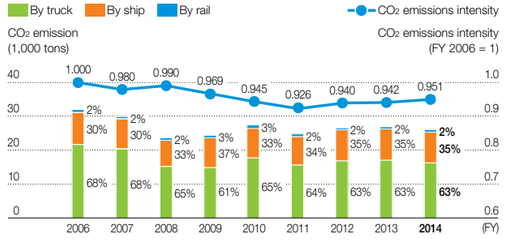
As an energy-saving measure in our Transportation Sector, MGC is undertaking initiatives focused on efficiency improvements in truck transport (use of larger transport lot sizes and improvement in loading ratio), use of larger ships for transport, and modal shift to rail transport. In FY 2014, energy consumption and GHG emissions each declined by 4% due to a 5% decline in transportation volume, as measured in ton-kilometers (transport weight × transport distance). FY 2014 CO_2 emissions intensity worsened 1.0% from the previous year, reaching 95% of the level of FY 2006.

Looking ahead, we are planning energy conservation measures that include a modal shift to rail from hauling on main lines and a shift to larger ships for marine transport.

Change in volume of transportation



Change in CO_2 emissions from transport



Activities in the Office and Employee Residence Area

We conduct a number of proactive measures to reduce energy consumption at our head office and laboratories. These include 'Cool Biz' during summer, 'Warm Biz' during winter, and turning off lights, air conditioning, and other equipment when not in use.

As a result of continuing these measures in FY 2014, our energy consumption declined 0.4% to achieve 92% of the level in FY 2010, prior to the Great East Japan Earthquake.

Looking ahead, we are planning initiatives that include a further shift to LED lighting and increased efficiency for air conditioners.

Change in energy consumption in the business operations division

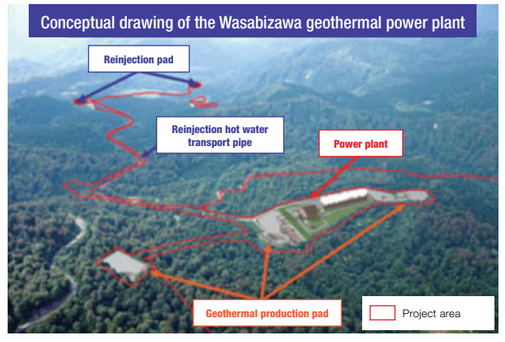
FY	Energy consumption (1,000 kL crude oil equivalent)	Greenhouse gas emissions (1,000 tons-CO_2 equivalent)
2010	6.68	11.05
2011	5.66	8.98
2012	5.80	10.67
2013	6.17	12.41
2014	6.15	12.32

Development of Renewable Energy

MGC is participating in a project to develop and generate electricity from geothermal energy, a type of renewable energy. Environmentally friendly and clean, geothermal energy emits minimal CO_2 during power generation and is a renewable resource that could last almost forever if used appropriately. Geothermal power also shows great promise for being entirely generated within Japan making good use of our abundant resources. It is also noted for its advantage as a base-load power unaffected by weather or seasons.

Over the past 20 years, MGC has conducted a joint project in Hachimantai, Akita Prefecture, to supply an adjacent power plant with geothermal steam. In May 2015, we began construction of the Wasabizawa geothermal power plant as part of a joint project in Yuzawa, Akita Prefecture. The power plant is expected to begin operation in 2019 and achieves an output of 42,000 kW.

We are also taking part in several survey projects in Hokkaido and the Tohoku region, with the aim of constructing new geothermal power plants.

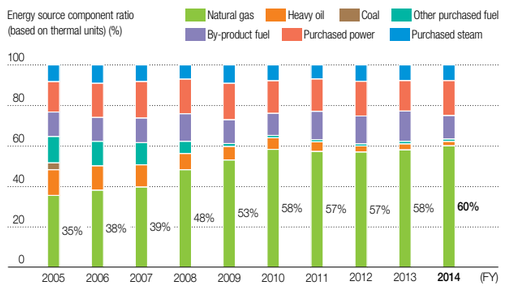


Promoting the Development and Utilization of Low-Carbon Energy

Natural gas is a clean fuel that emits little CO_2 per calorie of energy compared to coal or petroleum, as well as less sulfur and other impurities. In Niigata Prefecture, MGC has been actively conducting exploration and development work on natural gas. We have deployed natural gas at our Niigata Plant, where it is used as both a raw material and an energy source for the products of the plant.

We are promoting the switch to natural gas-derived fuels, such as city gas and LNG, at other plants as well. Fuel conversion at our plants has come to an end, with natural gas-related fuels making up a larger percentage of our company-wide energy consumption. In FY 2014, this usage rose 2% from the previous year to reach 60%.

Change in energy source component ratio



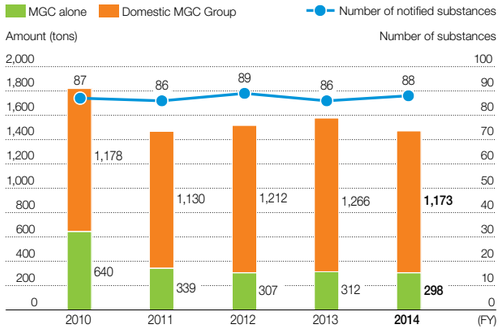
Reducing Chemical Substance Emissions (Domestic MGC Group)

In accordance with law, each MGC Group company assesses and issues notifications on substances subject to the Pollutant Release and Transfer Register (PRTR), while working to reduce the amounts released and transferred.

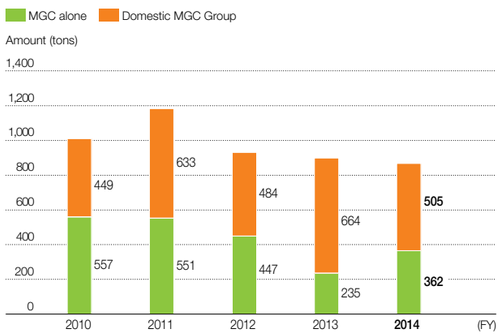
Substances Subject to Notification under the PRTR Law

In FY 2014, the MGC Group made notifications for the 89 substances that we handled. Our annual emission of these substances totaled 1,471 tons, a decrease of about 7% from 1,578 tons in the previous year. The Group's amount of transfers totaled 867 tons, a decrease of 32 tons, or about 4%, from the previous year.

PRTR Law substance emissions



PRTR Law substance transfers



* PRTR emissions volume and transfer volume have been revised because of changes to tabulation data for FY 2013.

PRTR Law Substances with High Levels of Emissions

Among the substances registered under the PRTR Law, those listed below are emitted by the MGC Group in amounts of 10 tons or more.

- Chloromethane (1,142 tons)
- 1,2,4-Trimethylbenzene (196 tons)
- Dichloromethane (63 tons)
- Xylene (13 tons)
- Toluene (12 tons)

Japan Chemical Industry Association PRTR-Targeted Substances (MGC alone)

The Japan Chemical Industry Association, in which MGC has joined, specified 433 substances plus 1 substance group as voluntary "PRTR-targeted substances" in conjunction with revisions to the law at the time of reporting on actual performance in FY 2010. The entire chemical industry is working toward the reduction of PRTR substance emissions.

MGC itself is working to assess and reduce substances targeted by the JCIA. In FY 2014, the amount of substances emitted on a FY 2010 basis totaled 79 substances and 426 tons, a decrease of about 3 tons from the previous year and a decrease of about 45% from FY 2010.

Transfers totaled 773 tons, an increase of 148 tons, or about 24%, from the previous year. This was primarily due to one-time increases in transfers caused by the shutdown and renewal of some equipment.

Volatile Organic Compounds (VOCs) (MGC alone)

At MGC (standalone), PRTR Law substances, and those on the JCIA list, for which there is release into the atmosphere, are tallied as VOCs.

Atmospheric release of VOCs in FY 2014 totaled 22 substances and about 358 tons, a decrease of about 17 tons from the previous year. This marks a 51% decrease from our release in FY 2010.

Waste Reduction (Domestic MGC Group)

Each MGC Group company is striving to reduce waste by promoting the 3Rs* of waste, with proper disposal of wastes in accordance with law as the foundation for initiatives.

* **3Rs:** Reduce, Reuse, Recycle (waste products)

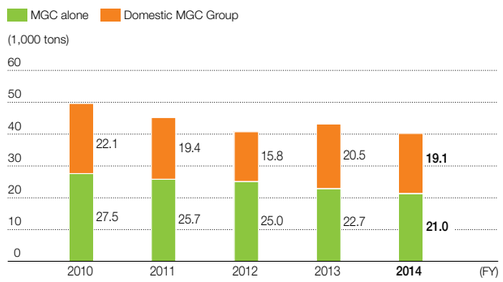
Waste Reduction Achievement

FY 2014 waste amounts totaled about 140,000 tons Group-wide, a decrease of about 30,000 tons from the previous year. This was due to an end to the generation of unneeded material accompanying reassessments of business operations.

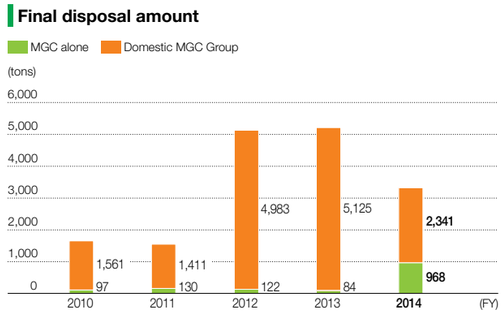
Final disposal for the Group totaled 3,300 tons, a decrease of 1,900 tons from the previous year. This was due to an end to the generation of sludge and soil waste accompanying decommissioning of business operations.

Amount of waste generated

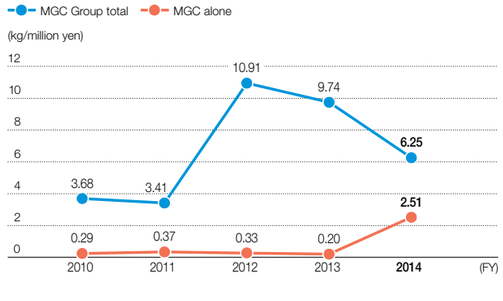
Recycled amount



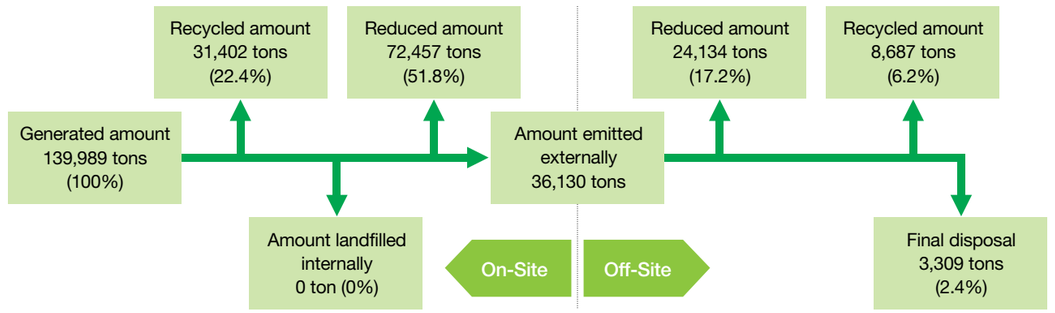
Final disposal amount



Final disposal intensity compared to net sales



Waste treatment in the domestic MGC Group in FY 2014



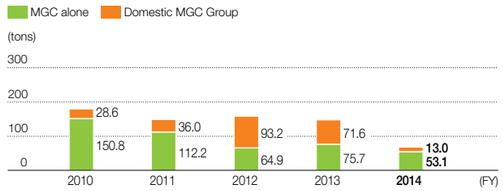
Air and Water Conservation (MGC Group)

To balance conservation of the natural environment with sustainable production activities, each MGC Group company is working to reduce the environmental impact of production activities through investment in equipment and stabilization of operations.

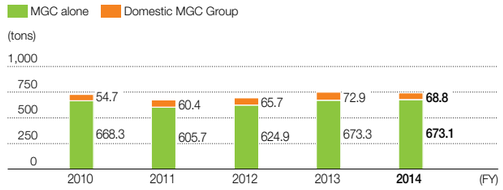
Preservation of Air Quality

We are working to preserve air quality by managing emissions of sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust, and other harmful substances contained in the emission gas of combustion facilities.

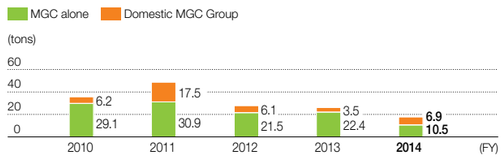
Emission of SOx



Emission of NOx



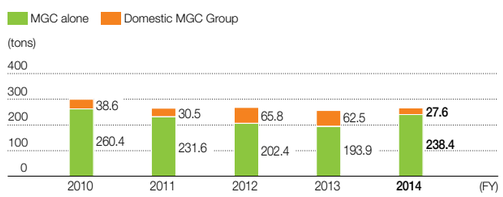
Emission of soot and dust



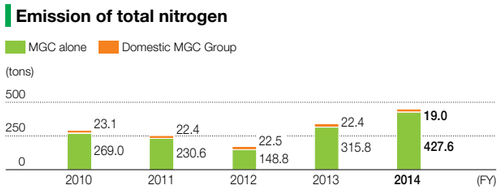
Preservation of Water Quality

We are endeavoring to preserve water quality by managing chemical oxygen demand (COD), total nitrogen, total phosphorus, and other chemicals within our wastewater. The increase in nitrogen seen during FY 2013 and FY 2014 was due to increased processing of wastewater associated with the decommissioning of facilities.

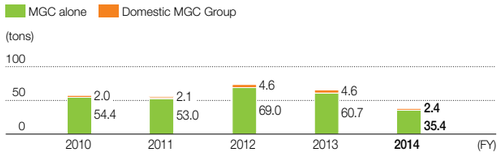
Emission of COD



Emission of total nitrogen



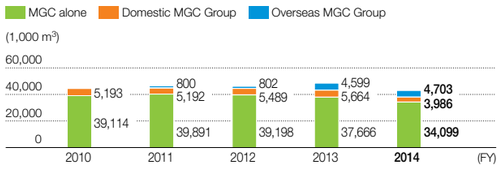
Emission of total phosphorous



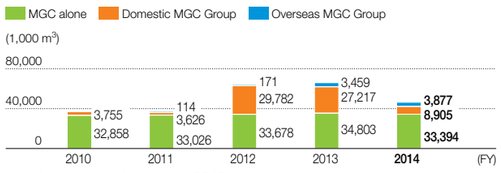
Global Water Consumption / Wastewater Volume

The increase in wastewater in FY 2012 and FY 2013 was a one-off event due to the intensive processing of wastewater stored in tanks associated with the decommissioning of facilities.

Water consumption



Wastewater



* Water consumption for FY 2013 is reassessed and revised.
For overseas Group data, calendar year values are added as-is to fiscal year data.

Water usage intensity relative to consolidated net sales for the MGC Group worldwide is on a declining trend.

Global water usage / wastewater volume intensity compared to consolidated net sales

Safety Management of Chemicals and Products

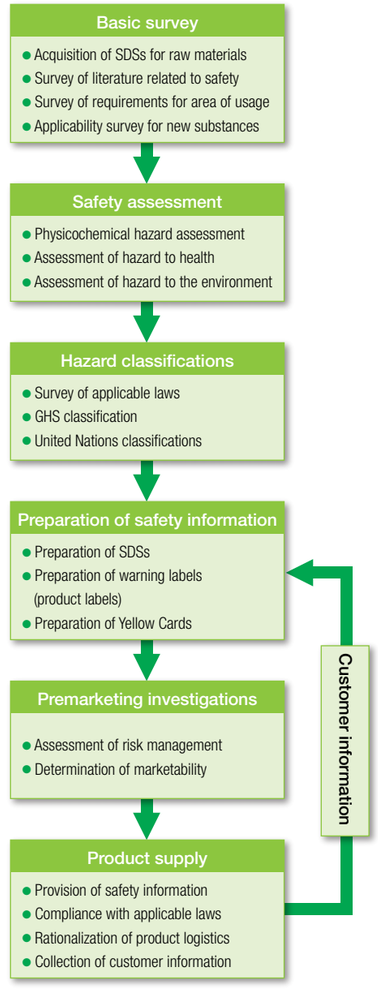
As a responsible provider of chemical products, MGC clearly explains properties, safety, and handling of its chemical products, as well as deploying various activities to protect the environment and to ensure the health and safety of all who use our products.

Safety Assessment of Chemical Substances and Products

At the development stage of products, MGC first conducts basic surveys and safety assessments. When products correspond to new chemical substances, we submit the notifications required by law and conduct necessary safety testing. We then classify products according to whether they do or do not come under each legal regulation, as well as according to their degree of hazard under standards such as GHS,*1 and create safety information such as safety data sheets (SDSs).

Based on these, we perform risk assessments (based on hazards of the substances themselves and exposure) for all product processes, from manufacture to disposal, and offer the products after appraisal.

*1 **GHS:** The Globally Harmonized System of Classification and Labeling of Chemicals. Chemical hazards are classified under fixed standards and are indicated clearly with pictograms on labels and SDS documentation. Ultimately, the information contributes to accident prevention, human health, and environmental preservation.



Providing Safety Information

MGC provides safety information on chemicals through means including submission of product SDSs, placement of product warning labels on containers, and distribution of Yellow Cards.

Safety data sheets (SDSs)

SDSs are documents that convey detailed information about the handling and safety of chemicals, and are submitted to companies that handle our chemicals, such as customers, sales agents, and shipping companies. SDSs for all products are in compliance with GHS, and we are in the process of reviewing them in accordance with the new JIS (JIS Z 7253) and enhancing safety information.

Labels

Easy to understand GHS compliant warnings and safety information for users are printed on labels affixed to our chemical products. At present, we are in the process of updating and reviewing label information in accordance with revision of SDSs based on the new JIS (JIS Z 7253).

Yellow Cards

A Yellow Card is a card readied in preparation for an accident during domestic shipment. It briefly lists a product's properties, laws that apply to the product, and emergency response measures, as well as contact information including fire departments, police departments, and our company. We distribute these cards to shippers of chemicals, and ensure that they are carried during product shipments.

Chemical and Product Safety Education

MGC conducts chemical and product safety education within its product liability (PL) training at each business site. In 2014, we carried out briefings on the Product Liability Act and company rules related to the Act.

We also carry out education, such as points of caution regarding product liability risk assessments and regarding what to include on SDSs for addressing risks, for practitioners concerned with marketing examination and SDS preparation.

PL education (Head Office)

Compliance with EU REACH Regulations and Extension to JIPS

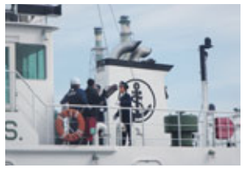
As one adaption to the EU's REACH regulations for chemical product management, we are performing registration of chemical substances that are exported to Europe. For this registration, information regarding exposure of the chemical substances to humans and to the environment throughout the supply chain is collected and evaluated, along with hazard-related information (so-called risk information).

As this activity meshes with the Japan Initiative of Product Stewardship (JIPS) initiative of the JCIA, we are taking the information used for REACH registration and extending it to JIPS as well, while also making active use of it in our management of chemical substances.

Emergency Responses in Distribution

At MGC workplaces, we have set up a wide-area support system that includes supplying emergency goods and apparatus to production sites and establishing communication between sites to facilitate emergency responses to accidents that occur during transportation. Because of our preparation of response systems and supplies, we cooperate with local police or fire departments upon request, should an accident occur during another company's transport of product in the vicinity of our workplaces.

We conduct training for scenarios that include terrorism, logistics accidents, and shipping accidents with marine spills that require oil barrier deployment.



On-site ship inspection drill (Mizushima Plant)

Suspicious item disposal drill (Mizushima Plant)

Unannounced logistics accident response drill (Mizushima Plant)

Logistics accident response drill (Yokkaichi Plant)

GLP Certified Testing Facility

The MGC Niigata Research Laboratory is recognized by the Japanese government as conforming to GLP* test facilities for Ames mutagenicity testing and biodegradability testing. GLP test reports command high confidence internationally. In addition, as GLP test reports can be used in notifications under the Industrial Safety and Health Law and the Law concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., we conduct GLP tests when notifications are necessary for new chemical substances that are part of our product development.

We conduct testing to assess the safety of the chemicals handled by the MGC Group, including acute oral toxicity tests, primary skin irritation tests, and pathogenicity tests.

* **GLP (Good Laboratory Practice):** GLP is a system which ensures the reliability of test results, through government recognition of excellent testing facilities that demonstrate GLP standards-based management, testing equipment, test planning, internal auditing systems, reliability assurance systems, and compliance with test result standards.

Colony Analyzer

12 Member Companies of the MGC Group Environment and Safety Council

Twelve domestic partner companies of the MGC Group that handle chemical products are promoting environmental and safety initiatives within the MGC Group Environment and Safety Council. In addition, the director in charge of the environment and safety carries out environmental and safety audits on domestic and overseas affiliates.

RC Medium-Term Plan	2015 RC Action Plan
■ Strengthening of communication with domestic and overseas Group companies (conferences, audits, liaison meetings) ■ Group-wide practice of process safety and disaster prevention activities and labor safety activities ■ Group-wide practice of environmental management	■ Sharing and horizontal communication of information on abnormal occurrences and occupational injuries ■ Inspection of domestic and overseas affiliates ■ Support for the environmental and safety activities of domestic and overseas affiliates ■ Setting of environmental impact reduction plans by the domestic MGC Group

MGC Group Environment and Safety Council Meeting

The Council meets twice a year to exchange ideas and to report on topics including MGC's and member companies' annual plans for environmental and safety activities, the results of the activities, and the status of accidents and occupational injuries.

Since 2012, the Council meets not only at the MGC headquarters, but also at MGC business sites and the business sites of Group companies, which provides an opportunity to raise the bar of environmental and safety activities by visiting the business sites of each company firsthand.

A meeting held at the MGC headquarters

Study tour of the MGC Hiratsuka Research Laboratory

Sharing Safety Information across the MGC Group

If an accident or occupational injuries occur at an MGC Group company, both in Japan and abroad, information is immediately distributed across the Group using the safety information conveyance system to help prevent similar incidents from occurring. Furthermore, excellent examples of environmental and safety initiatives at MGC Group companies are introduced and shared across the Group as good practices.

Environmental and Safety Audits

With the director in charge of the environment and safety as team leader, we conduct 4 or 5 domestic and 5 or 6 overseas environmental and safety audits each year in support of the Group companies' environment and safety activities.

In FY 2014, the 12 companies below were audited.

- MGC ELECTROTECHNO CO., LTD.
- JAPAN FINECHEM CO., INC., Sakaide Plant
- JAPAN PIONICS CO., LTD., Isehara Plant
- SHINSANSO KAGAKU CO. Tomakomai Plant
- YONEZAWA DIA ELECTRONICS CO., INC.
- MGC PURE CHEMICALS TAIWAN, INC. (Taiwan)
- MGC PURE CHEMICALS AMERICA, INC. (MPCA/AMERICA)
- MGC ADVANCED POLYMERS, INC. (MAP/AMERICA)
- AGELESS (THAILAND) CO., LTD. (AGT/THAILAND)
- MGC ELECTROTECHNO (THAILAND) CO., LTD. (ETT/THAILAND)
- THAI POLYACETAL CO., LTD. (THAILAND)
- THAI POLYCARBONATE CO., LTD. (THAILAND)

MPCA (U.S.) audit

MAP (U.S.) audit

ETT (Thailand) audit

AGT (Thailand) audit

12 Member Companies of the MGC Group Environment and Safety Council

Eiwa Chemical Industry Co., Ltd.

Manufacture and sale of blowing agents

Address: Daido Seimei Co. Kyoto Bldg. 9F, 595-3 Manjuya-Cho, Sanjo-sagaru, Karasuma-dori, Nakagyo-ku, Kyoto-shi, Kyoto 604-8161, Japan Tel: +81-75-256-5131
URL: http://www.eiwa-chem.co.jp/en/

Hirotsugu Yamamura
President & CEO

Eiwa Chemical Industry's blowing agents contribute to the reduction of environmental impacts in our customers' products by providing insulation and lessening weight. Our blowing agent master batch products contribute to the suppression of dust in customers' processes and the improvement of working environments.

We will work to further strengthen safety management and will continue to stably supply products, with safe operation as our foundation.

Firefighting drill using powder-based extinguishers

MGC Filsheet Co., Ltd.

Manufacture of polycarbonate film and sheet

Address: 4-2242, Mikajima, Tokorozawa-shi, Saitama 359-1164, Japan Tel: +81-4-2948-2151
URL: http://www.mgcfs.jp/en/

Kuniaki Jinnai
President & CEO

MGC Filsheet's Tokorozawa Plant is located near the abundant nature of Sayama Lake, and its Osaka Plant is located in Toyonaka, which has developed as a residential city. These plants, each rooted in its community, produce functional films and sheets that are used in a wide range of fields, particularly information devices.

Through a variety of initiatives including improvement activities in which all employees participate, we will continue production activities with environmental safety in mind.

Basic lifesaving course

MGC Electrotechno Co., Ltd.

Manufacture of copper-clad laminates

Address: 9-41, Aza-Sugiyama, Oaza-Yone, Nishigo-mura, Nishishirakawa-gun, Fukushima 961-8031, Japan
Tel: +81-248-25-5000

Yuh Miyauchi
President & CEO

In partnership with MGC Electrotechno (Thailand), we aim to win the trust of our customers and to become the world's leading copper-clad laminate manufacturer. In addition to the enhancement of manufacturing technology capabilities expected from the completion of our experimental research building, we are working to boost our capabilities in quality control, quality assurance, maintenance, and procurement, and to strengthen functions appropriate to a mother plant.

Through environmental preservation and the elimination of accidents and occupational injuries, we aim to become a company trusted by our community.

Firefighting drill

JSP Corporation

Manufacture and sale of foamed plastics

Address: Shin-Nisseki Bldg., 4-2 Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-0005, Japan Tel: +81-3-6212-6300
URL: http://www.jsp.com/en/

Kozo Tsukamoto
President & CEO

As a dedicated manufacturer of foamed plastics, we supply the world with products that meet the needs of the times with respect to energy conservation, resource conservation, and environmental preservation.

As an internationally competitive company that prioritizes safety and adaption to the environment, we aim to engage in business activities that earn the trust and satisfaction of stakeholders, and will continue to work toward harmony among our business, the environment, and safety.

Local dialogue meeting on Responsible Care for the Yokkaichi district, held jointly with companies from the region

Japan Finechem Co., Inc.

Manufacture and sale of fine chemicals, for industrial use, and electronic products

Address: Uchisaiwaicho Tokyu Bldg. 9F, 3-2 Uchisaiwaicho 1-chome, Chiyoda-Ku, Tokyo 100-0011, Japan
Tel: +81-3-5511-4600
URL: http://www.jfine.co.jp/eng/

Shigenobu Ono
President & CEO

Japan Finechem continuously works on safety activities under the slogan that safety comes before all else. Our goal is more than just preventing accidents from happening. We are endeavoring to ensure safe and stable operations by implementing facility and work process improvements identified through self-led activities, risk assessments and Hiyari-KY (hazard prediction) proposals, in order to establish a presence trusted by the markets and society for our strengths in safety practices.

Fire hose drill under the guidance of the local fire department

Toyo Kagaku Co., Ltd.

Resinous molding processing

Address: 51-497 Aza-Doudou, Oaza-Morowa, Togo-cho, Aichi-gun, Aichi 470-0151, Japan Tel: +81-561-39-0531
URL: http://www.toyo-kagaku.co.jp/ (Japanese only)

Masanori Shimuta
President & CEO

Toyo Kagaku has placed the elimination of occupational injuries (i.e., zero accidents and zero occupational injuries) at the top of our basic policies. We engage in safety activities including identification and improvement of hazardous locations and monitoring of traffic safety, under the idea that safety takes priority over all else.

In terms of the environment, we manufacture plastic molded products that take energy conservation into consideration, adopting energy-saving equipment and reducing wastes through the improvement of material yields.

Drill for hazard prediction during transport by hand truck.

12 Member Companies of the MGC Group Environment and Safety Council

Shin Sanso Kagaku Co.

Manufacture of hydrogen peroxide

Address: 148-58 Yufutsu, Tomakomai-shi, Hokkaido 059-1372, Japan Tel: +81-144-55-7337
URL: http://www.sskc.co.jp/ (Japanese only)

Yasushi Hiramatsu
President & CEO

Shin Sanso Kagaku is the only manufacturer of environmentally friendly hydrogen peroxide in Hokkaido. We began operation in 1987 in Tomakomai, an industrial city with a port and surrounded by abundant nature, including Shikotsu-Toya National Park and a Ramsar Convention site.

With safety assurance and environmental preservation as our top priority, we engage in risk assessment activities, continuous improvement of energy consumption intensity, and stable production under zero accidents and zero occupational injuries.

Participation in fire extinguisher drill held jointly with a petroleum complex firefighting team

Japan Circuit Industrial Co., Ltd.

Manufacture and sale of printed circuit boards

Address: 2-1236 Kamiike-cho, Toyoda-shi, Aichi 471-0804, Japan Tel: +81-565-88-3718
URL: http://www.jci-jp.com/eng/

Koichi Yamabe
President & CEO

Japan Circuit Industrial manufactures semiconductor substrates, using a variety of equipment and chemicals in their manufacture. Through everyday inspections and disaster drills, we take measures to prevent and minimize the impacts of occupational injuries, environmental accidents, natural disasters, and other hazards.

We also work toward environmental improvement and toward safety and security in our operations through multifaceted initiatives that include the reduction of energy and resource consumption and environmental monitoring of wastewater, noise, and odor.

Killifish Project
(Raising killifish using industrial wastewater)

Japan Pionics Co., Ltd.

Manufacture and sale of gas purifiers and abatement system

Address: 3-32 Tamura 3-chome, Hiratsuka-shi, Kanagawa 254-0013, Japan Tel: +81-463-53-8300
URL: http://www.japan-pionics.co.jp/en/

Masaaki Iijima
President & CEO

Safety is the foundation of our business activities. All of our employees share the goals of zero accidents and zero occupational injuries, product quality assurance, and strengthening of risk management, and work to foster a culture of safety.

We undertake improvements through regular reviews to keep our environmental management system functioning properly. We also actively participate in regional activities.

Everyday inspection through point-and-call activities

Fudow Co., Ltd.

Manufacture and sale of molding resin

Address: NOF Shin-Yokohama Bldg. 5F, 15-16 Shin-Yokohama 2-chome, Kouhoku-ku, Yokohama-shi, Kanagawa 222-0033, Japan Tel: +81-45-548-4210
URL: http://www.fudow.co.jp/en/

Takahisa Furuya
President & CEO

At Fudow's Gamagori Plant we analyze causes of near-miss incidents and enact countermeasures, achieving over 700,000 hours of work without occupational injuries. Aiming to continue this record, we have added new items to our internal safety inspection checklist and are working to prevent and eliminate hazards. For two years straight, employees who joined the company in FY 2014 have won a fire hydrant operation competition held by the city of Fujinomiya.

From here on out, we will continue environmental safety activities with the participation of all employees.

Continuing over 13 years of zero occupational injuries at the Gamagori Plant

Japan U-PiCA Co., Ltd.

Manufacture and sale of unsaturated polyester resin and coating resins

Address: Madre Matsuda Bldg., 4-13 Kioi-cho, Chiyoda-ku, Tokyo 102-0094, Japan Tel: +81-3-6850-0241
URL: http://www.u-pica.co.jp/en/

Kuniaki Ageishi
President & CEO

Japan U-PiCA carries out business activities under the philosophy of contributing to the realization of a more affluent society and comfortable living as a materials manufacturer.

In terms of safety, we aim to eliminate human errors through both physical and operational-related aspects, including improving equipment, strengthening communication, implementing 3S activities, and encouraging the method of pointing and calling out procedures. In terms of the environment, we are working to enhance our lineup of biomass-derived products and reduce our CO_2 emissions rate through implementation of the project to double productivity.

AED course

Yonezawa Dia Electronics Co., Inc.

Manufacture of printed circuit boards, auxiliary materials for processing

Address: 446-3 Hachimanbara 3-chome, Yonezawa-shi, Yamagata 992-1128, Japan Tel: +81-238-28-1345

Yuh Miyauchi
President & CEO

The top priorities for Yonezawa Dia Electronics are the safety and health of our employees and the preservation of the global environment. We are working to raise the level of our environmental preservation activities through risk assessment, planned maintenance of equipment, and the achievement of zero emissions, and at the same time aim to heighten the occupational health and safety awareness of employees and achieve zero occupational injuries through KYT, safety patrols, and 5S activities.

Median strip greening activity