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CSR Report 2010



MITSUBISHI GAS CHEMICAL COMPANY, INC.



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About this Report

The purpose of the 'CSR Report 2010' is to provide information related to the various activities carried out by Mitsubishi Gas Chemical Company Inc. (MGC) in the area of Responsible Care (RC), the steps it is taking to improve corporate ethics and compliance, and to report our relations with our many stakeholders in addition to broadly promoting our (CSR) activities.

MGC began producing an environmental report in 2001. In 2007, the report was renamed the RC Report, and it continued to provide details about company activities related to the environment and safety. Starting in 2010, we are changing this report to the CSR Report to reflect our wide-ranging efforts in the area of Corporate Social Responsibility. As a result, you will find that this year's report provides a much broader selection of information.

We have put great effort into making this report easy to understand, and look forward to your honest opinion and feedback.

Scope of this Report

Organizations included

All offices in Japan. In the case of MGC Group companies, proper reference will be made where necessary.

Reporting period

April 1, 2009 through March 31, 2010 (includes some activities after April 2010)

However, Responsible Care (RC) activities are included from 1 January, 2009-December 31, 2009 (includes some RC activities in 2010)

Reference Guidelines

Ministry of the Environment, "Environmental Reporting Guidelines (2007)"

Ministry of the Environment "Environmental Accounting Guidelines 2005"

Global Reporting Initiative (GRI) "Sustainability Reporting Guidelines Version 3.0"

Publication Information

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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.

Adoption of CSR Practices Is Critical to Becoming a Truly Socially Engaged Chemical Company



K. Sakai

Kazuo Sakai
President
October 2010

As one of society's corporate citizens, we exist solely because of the support of our various stakeholders including business partners, communities and company staff. Mitsubishi Gas Chemical (MGC) has conducted business activities so as to earn the trust and sympathy of society, based on our management concept of "making contributions towards development in harmony with society through the creation of a diverse range of value based on chemistry" and our group vision of "working to achieve sustainable growth while contributing to society as a highly profitable, research-driven industrial group."

Specifically, with improvements to corporate governance as a given, an effective internal control system was established throughout the group. While ensuring the soundness of corporate activities by implementing compliance and risk management, we are also proactively pursuing activities related to the environment and safety.

In particular, MGC does not simply stop at compliance with the law and company regulations. We are committed to actively responding to the demands of society by broadly defining a policy of "acknowledging our social responsibilities and conducting fair, transparent and free business activities in addition to follow the law, company regulations, and social norms." The "MGC Code of Conduct" defines the rules each employee must observe, and basic items to be observed during

everyday work.

MGC is committed to Responsible Care activities, which are self-regulations for ensuring environmental safety in our products' whole lifecycle, from their fabrication to disposal. Furthermore, MGC is taking steps to adopt environmental accounting, develop environmental products, carry out green procurement, reduce greenhouse gas emissions, and achieve zero emission of waste products.

Under the principle of sustainable development, MGC is always conscious of the social and environmental impact of our business activities. At the same time, our desire is to consistently carry out our role as a chemical manufacturer to produce chemicals that provide the basis for all industries, while continuing to grow as a company that is needed by society. Furthermore, we will focus on developing new products and technologies that utilize our skills and knowledge. By providing products and technology that contribute to energy efficiency, conservation of resources, and reduction of environmental impact, we will be in a good position to meet corporate obligations.

Through the efforts of this group's employees, we will strive to fulfill our corporate social responsibilities in order to earn the trust and support of all our stakeholders.

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

Corporate Information

Company name

MITSUBISHI GAS CHEMICAL COMPANY, INC.
Corporate Logo 

Head office address

Mitsubishi Building, 5-2 Marunouchi 2-chome,
Chiyoda-ku, Tokyo 100-8324, Japan

Established January 15, 1918

Incorporated April 21, 1951

Capital ¥41.97 billion (as of End of March, 2010)

Number of employees

2,282 (non-consolidated) 4,920 (consolidated)

Number of consolidated subsidiaries 35

Main Business Sites in Japan

Branch offices

Osaka branch

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

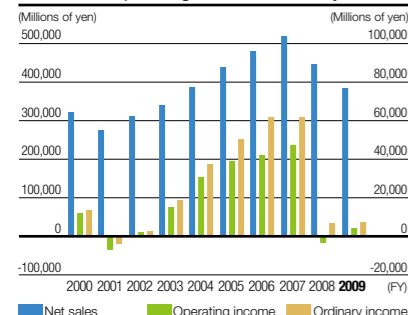
* As of March 31, 2010



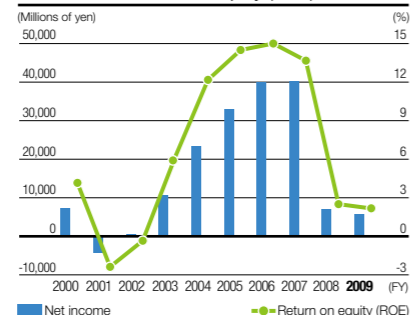
Tokyo Techno Park (TTP) opened in October 2009. This urban research and development center is responsible for the study of specialty chemicals and advanced materials.

Financial highlights (Consolidated)

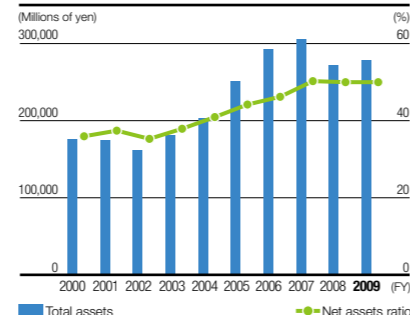
Net sales / Operating income / Ordinary income



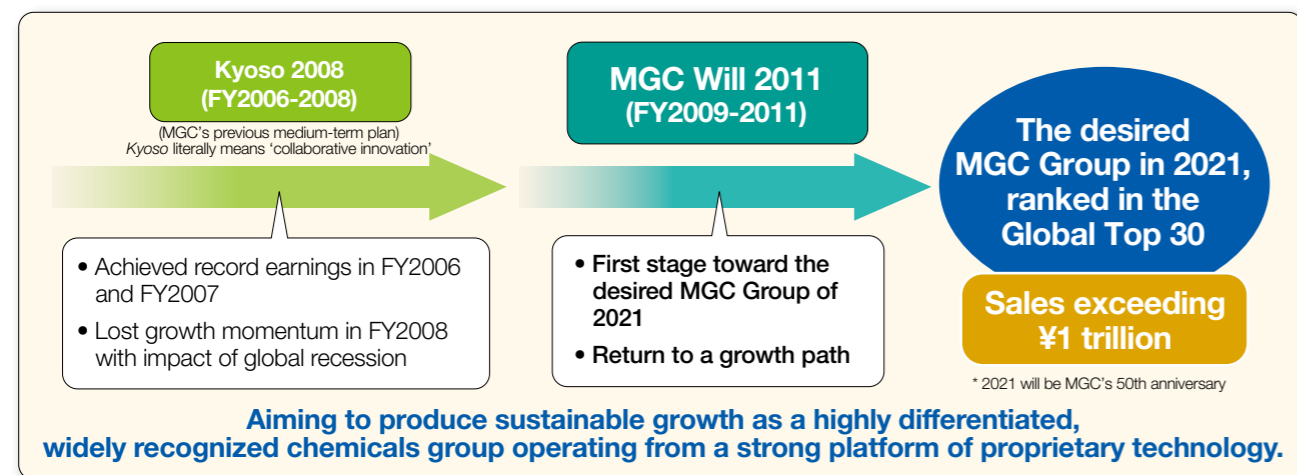
Net income / Return on equity (ROE)



Total assets / Net assets ratio



Medium-Term Management Plan MGC Will 2011



Major Products and Business Lines—Six businesses operated by four companies

Natural Gas Chemicals Company



Includes a wide product lineup, spanning from core chemical materials such as methanol, ammonia and their derivatives to CoenzymeQ10 made using biotechnology. Also involved in the exploration and drilling of petroleum and natural gas and geothermal development.

Major products

Methanol, Formalin, Methanol synthesis catalyst, Ammonia, Amine, Polyol, Methyl methacrylate, Dimethyl ether (DME), Catalase, CoenzymeQ10



Aromatic Chemicals Company



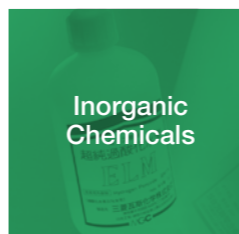
Develops unique aromatic products centered on the metaxylene chain, including aromatic aldehydes and aromatic polycarboxylic acids, which are used as intermediates in pharmaceuticals, agrochemicals and fragrances, monomers, and additives. One of our core products, Nylon-MXD6, is a derivative of metaxylene that is used for PET bottles and food packaging because of its excellent gas barrier property.

Major products

Metaxylene, Metaxylenediamine, Nylon-MXD6, Aromatic aldehydes, Aromatic polycarboxylic acids, Purified isophthalic acid (PIA), Plasticizers



Specialty Chemicals Company



Develops a range of products from industrial-use hydrogen peroxide, to chemicals for use in the electronics industry and environmental agents. Also involved in the development of resinous material for functional thermal curing, and has a product lineup that ranges from monomers for high refractive index plastic lenses to photoresist monomers.

Major products

Hydrogen peroxide, Chemicals for use in the electronics industry, Persulfates, Organic titanates, Water treatment agents, Environmental agents, Monomers for high refractive index plastic lenses, Adamantane derivatives



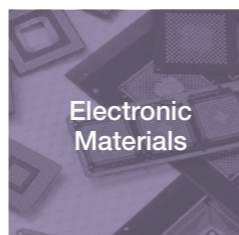
Mainly involved in development of engineering plastics, including polycarbonate and polyacetal. Also develops special polycarbonate for specific applications such as optics as well as polycarbonate sheet & film with excellent surface coating technology.

Major products

Polycarbonate lupilon®, Polyacetal lupital®, Polyamide MXD6 Reny®, Polycarbonate sheet lupilon® sheet, Special polycarbonate lupizeta®



Information & Advanced Materials Company



Mainly involved in laminate materials for printed circuit boards and entry sheets, used in mechanical drilling of printed circuit boards. Its core product BT laminate material led the move towards using plastic material for semiconductor packaging, and it still remains synonymous with semiconductor package boards.

Major products

Laminate materials for printed circuit boards (epoxy-related materials, BT-related materials and entry sheets ("LE sheets") used for the mechanical drilling of printed circuit boards.



Expanding the business with a focus on oxygen absorber AGELESS® which was developed based on the idea to create an oxygen-free packaging environment that prevents food deterioration by oxidation. Currently it is not only used for preserving food freshness but also in other areas as a total solution for maintaining quality, including for pharmaceuticals, medical devices, electronic/metal parts and important cultural assets.

Major products

Oxygen absorber AGELESS®, PharmaKeep®, RP System®, anaerobic cultivation system AnaeroPack®, and desiccant AGELESS DRY®



Feature

Contributing to the diversification of energy sources

Towards the Promotion of Next-generation Fuel DME (Dimethyl Ether)

With concerns about high oil prices and the depletion of fossil fuels, the “diversification of energy sources” has become a pressing issue in Japan.

Against this backdrop, there are a number of candidates for next-generation fuel, one of which is gaining much attention in Asia: DME (Dimethyl ether).

Mitsubishi Gas Chemical Company (MGC) has been pioneering the technology needed to produce DME for more than 40 years, and MGC is committed to the promotion of DME as a promising fuel.



DME in the Spotlight as a Next-generation Fuel

DME is attracting attention as a next generation fuel, not only because of its environmental merits as a potential ‘clean’ alternative to the black smoke-producing diesel engines commonly in use today. DME’s strength lies in the fact that it can be made from various materials and put to use in a variety of applications. It is truly “Multi-Source, Multi-Use” energy (see Figure below), bringing with it the social benefit of a highly stable supply. In the future, we can expect to see locally available materials being used as a source to produce DME for local fuel applications based on the notion of “local production for local consumption of energy.”

Also, in addition to the fact that natural gas, which is a raw material for DME, is widely deposited in regions

outside the Middle East, DME can be liquefied more easily than LNG (Liquefied Natural Gas) and, because it is easily transported and stored, it can be produced in small natural gas fields where LNG production would not be economically viable. And because existing LPG (Liquefied Petroleum Gas) infrastructure can be used, capital expenditure requirements are greatly reduced.

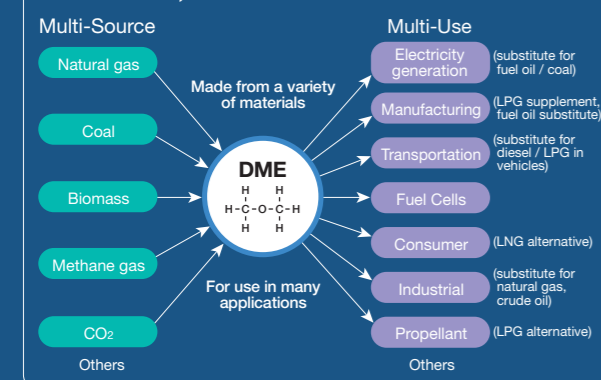
As one of the leading producers of methanol in the world, MGC has long been a major supplier of clean gas CFC propellant substitutes for use in products such as paint, cosmetics, and insecticides, thanks to its early leadership in developing the process technology for making DME. Furthermore, the company believes that its continued efforts to promote the widespread use of DME will make a positive contribution to society’s energy supply needs.

*1 Development of DME process technology: MGC uses natural gas to produce methanol, and established the DME production process in 1965 for methanol derivatives.

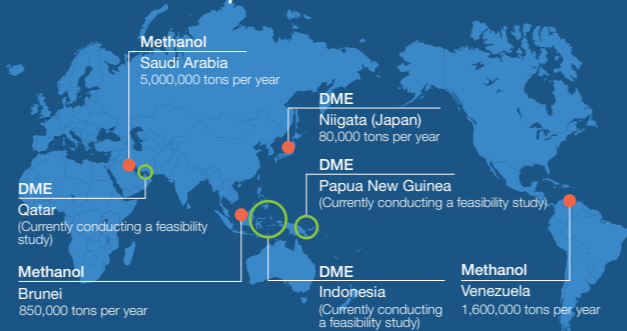
DME’s clean credentials

- No direct coupling of carbon, no PM (soot) during combustion
- Does not contain S (sulfur) or N (nitrogen), so does not cause SOx emissions
- Efficient combustion, with low CO₂ emissions

Multi-source, Multi-use DME



MGC Group methanol / DME production facilities and commercialization plans



Commercialization of DME Fuel, First Shipments in 2009

MGC took its first step toward commercializing DME fuel for energy applications in 2001 when Japan DME Ltd. was established*² and a feasibility study of DME was launched in Western Australia. In 2004, the MGC played a pivotal role in the establishment of the DME Promotion Center which promotes the spread of and develops technologies for DME use*³, while in 2007, Fuel DME Production Co., Ltd. was established*⁴. Located inside the Niigata Plant is a fuel DME promotion plant that produces 80,000 tons of DME annually, enough for it to be utilized as DME fuel.

In 2008, as next-generation clean energy was thrust into the spotlight, the government’s revised master plan contained a policy to “promote the installation of equipment using DME.” At the same time, the government publicly announced a plan to offer a subsidy for equipment using DME fuel. The first company chosen to take advantage of the subsidy was a food manufacturer in Niigata Prefecture, and in January of 2009, MGC made the first DME fuel shipment from its new plant. Another food manufacturer from Niigata became the second company to join this project, with DME fuel shipments expected to begin during FY 2010.

*² Japan DME Ltd.: Established in collaboration with Itochu Corporation, JGC Corporation and Mitsubishi Heavy Industries Ltd.
 *³ DME Promotion Center: Established in collaboration with JFE Holdings
 *⁴ Fuel DME Production Co., Ltd.: Established in collaboration with ITOCHU Corporation, Japan Petroleum Exploration Co., Ltd., Taiyo Oil Co., Ltd., TOTAL Di-Methyl Ether Japan Ltd., Toyota Tsusho Corporation, JGC Corporation, Mitsubishi Heavy Industries Ltd. and Mitsubishi Chemical Corporation.



Fuel DME Promotion Plant inside MGC's Niigata Plant

Numerous Experiments Bring Diesel Vehicles Closer to Practical Use

One of the difficulties of DME is that, similar to ethanol, it easily causes the swelling of particular rubbers. As a consequence, it is essential to establish DME’s safety before promoting it as a fuel. MGC has worked together with the concerned agencies and local authorities to thoroughly test DME in applications such as boilers, gas turbines, diesel generators and emergency power fuel cells, as well as by conducting experiments using an LP gas / DME mixture to confirm safety.

DME is particularly suitable for use in diesel vehicles, so now there are a variety of organizations and companies working on the commercialization of DME trucks and buses. MGC has been cooperating in DME vehicle testing as part of the Ministry of Land, Infrastructure, Transport and

Tourism’s “next generation low emission vehicle development and commercialization promotion.” Using two common-rail diesel trucks developed by Isuzu Advanced Engineering Center Ltd., long-distance driving tests (96,000 km annually) have been carried out on public roads in the Niigata and Kanto regions.



A Major Pillar of Next-generation Energy

Many evident demonstration projects are currently under way to prepare the path for DME’s commercialization. At the same time, process development is underway for DME production using bio-materials, where attention is focused on the successful production of bio-DME from eucalyptus under the collaboration between the DME Vehicle Promotion Committee and the Biomass Technology Research Center, National Institute of Advanced Industrial

Science and Technology.

It has been said that it will take more time for DME to become popular, however once it is commercialized, it may become a major pillar of next-generation energy options.

MGC will continue to persevere in its research efforts, working steadily with respective agencies to make DME’s commercialization a reality.

Compliance and Risk Management

MGC Group Compliance

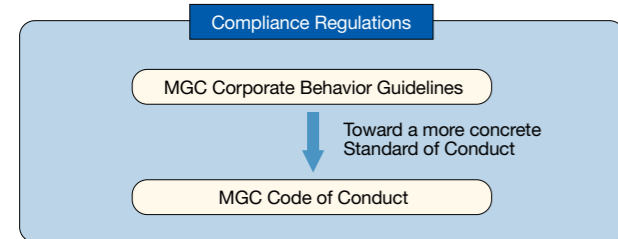
MGC established its "MGC Corporate Behavior Guidelines" in 1997 in an effort to strengthen its compliance system. In 2002 it established a Compliance Committee and a Compliance Consultation Desk. Moreover in 2004, the company laid down its "MGC Code of Conduct" and "Compliance Regulations," and worked with its group companies to ensure that they were aware of the policies and adhered strictly to the compliance rules.

Within the MGC Group we strive to proactively meet the needs of society by not limiting "compliance" to a set of laws and internal rules, but by embracing a broader belief in "complying with the law, internal rules, and social norms, as well as recognizing our corporate social responsibility to create a company with fair, transparent and open business practices."

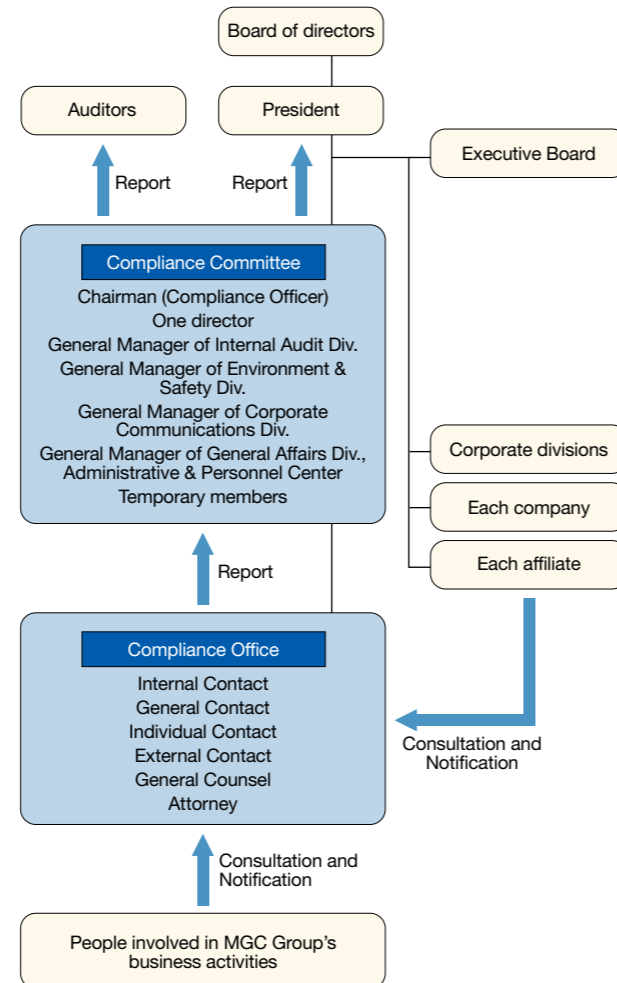


MGC Compliance Handbook

MGC compliance concepts



MGC compliance structure



Compliance System and the Initiatives

At MGC we have established a Compliance Committee to oversee matters concerning the Group's compliance program, headed by the Chief Compliance Officer and reporting directly to the President. In addition, we set up a "Compliance Consultation Desk" to detect and rectify non-compliance issues at the earliest stage.

Also, we set aside October each year as "Ethics Month" for compliance training. MGC's intranet contains materials covering roughly 40 types of compliance requirements. We select some particular agenda, which match the social conditions of the time, and have our staff learn them through our e-learning system. In an effort to raise awareness of "Ethics Month," the President actively promotes the program by communicating the details to all of our offices.

Risk Management

MGC created a Risk Management Committee in 2006 to respond to various risks related to our business activities. This committee helped to raise awareness of risk management's importance by conducting seminars for senior management and for all employees at every MGC offices. The committee identified risks specific to each business sector, and created a detailed list of hundreds of risks for further evaluation.

In 2007, we selected the pressing risks among the listed in order to prioritize them and consider potential solutions, and formulated a Business Continuity Plan (BCP).

Since 2008, we have worked to ensure that risk management permeates even deeper within the company, while at the same time implementing measures to reduce potential risks, and re-evaluating the BCP on an ongoing basis.

Message from the Director in Charge of Corporate Communications Division

Companies operate within the society, receive the capital necessary to run their businesses from society, and offer society the products and services that they produce. A company, therefore, needs to gain the trust of all of its stakeholders if it is to continue and grow its business.

Since 2001 the role of the "RC (Responsible Care) Report" has mainly been to provide information on our environmental and safety activities; however, commencing with our 2010 edition we are changing its name to the "CSR Report" to reflect the increased focus on our social and an economic activities as well.

While maintaining a balance of environmental, social and economic perspectives, we will continue to improve our CSR efforts for sustainable growth.



Jin Hata
Representative Director &
Senior Managing Executive Officer

Risk Management Promotion System

The Risk Management Committee, headed by the risk management officer, is responsible for assessing and prioritizing the status of risk management and providing instructions and supervision to the appropriate division so that mitigating actions can be taken.

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 steps to prevent, avoid, reduce or divert the risk. In the event that a serious risk is identified, we set up a special group to cope with it according to internal rules.

Countermeasures for Company-wide Risk and BCP Development

At MGC, all of our facilities cooperate closely in the formulation of business continuity plans (BCP) that ensure the company can cope with such company-wide risks as caused by earthquakes, poisons, hazardous material leaks, fires, explosions, and information leaks.

Countermeasures for Metropolitan Epicentral Earthquake

In 2008, MGC put special measures in place to cope with a major earthquake in the Tokyo metropolitan area (a magnitude 7.3 earthquake north of Tokyo Bay assumed by the Cabinet Office). We introduced a safety confirmation system and provided each office with satellite phones and radiotelephone so that we are able to contact each office even in the event of a major earthquake.

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

Response to Pandemic Influenza

Influenza (H1N1) was confirmed in Mexico in April 2009. In response to this, MGC has enforced prevention efforts by redeveloping its entire global network of contacts and following WHO and Japanese (Ministry of Health) directives.

Influenza remains a concern, however, we will develop measures to cope with the spread of influenza by utilizing our enhanced network and following BCP which is currently under development.

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.

Working with Local Communities

MGC is deeply aware of its role as a member of society, working to improve its position of trust through a variety of communication channels, and promoting activities that contribute to the community.

Neighborhood council briefings

Every year, we actively participate in an open dialog with our neighborhood council. For example, in 2009, we invited the neighboring residents' association to the Tokyo Techno Park opening and held a briefing to inform them about our facilities and research.



The public briefing at Tokyo Techno Park opening

Facility tours

In response to requests from neighborhood schools, we organize tours for students to be conducted at our facilities.



Mizushima Plant / Local high school students taking a tour of facilities

To provide junior high school science kits

To help students become more interested in science, especially in chemistry, we provide junior high schools near our facilities with chemistry kits to make their own portable heating pads. These kits teach the students about the oxidation of iron, which generates heat and makes the pads warm.



Science experiment kits

Blood donations

Employees donate blood in mobile vans that we invite into our premises.



Niigata Plant / Blood donations

Cleanup around plant

At each of its sites MGC participates in voluntary cleanup activities such as roads and nearby river beds.



Hiratsuka Research Laboratory / Collecting trash with elementary school students at Sagami River
Yokkaichi Plant / Cleaning the roads around the plant

Our Business Partners

Efforts to improve customer satisfaction

In order to provide customer satisfaction to our clients, from our business partners to end consumers, MGC is committed to providing safe and reliable products and services. All of our plants have received ISO9000 series accreditation for international quality management.

We also conduct customer satisfaction surveys in an effort to constantly improve product quality and service.

Building better relationships with partner companies

At the Logistics Department, Purchasing & Logistics Center, we work with our partner, transportation companies, to ensure the safety of our supply chain, to improve the quality of distribution, and work towards a modal shift. We conduct audits of our partner companies from both a legal and compliance standpoint, and strive to build even stronger relationships with them.

In addition, each of our offices conducts a Safety Day together with partner companies, enhancing safety awareness.



Mizushima Plant Safety Day

Participation at tradeshow

MGC actively participates in various exhibitions as a way to listen to the voice of our customers, which in turn helps us to develop better products.

A good example of this was the "Health Ingredients Japan 2009" show held at Tokyo Big Sight, where we introduced our oxygen absorber "Ageless®" and Coenzyme Q10. The exhibition brought new materials and functional materials, safety and quality all together under one roof. As Asia's largest technology-related food exhibition focusing on the two big trends of 'health' and 'safety,' this show has drawn a great deal of interest at home in Japan and abroad.



MGC booth

Employees

Personnel system and human resources development

MGC's management concept is, "making contributions towards development in harmony with society through the creation of a diverse range of value based on chemistry." Our desire is to foster a team of professionals, empowering individuality in each employee and creating a vibrant workplace.

Personnel system

MGC's personnel system is a multi-stream vocational qualification grading system based on objective management. 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. It is a system that treats all employees equally, providing them with a range of career opportunities in line with individual aspirations that meet their role, achievements and capabilities.

Human resource development

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

Retention of new employees (three years after joining)

| | FY2005 | FY2006 | FY2007 | FY2008 |
|--|--------|--------|--------|--------|
| Number of new employees | 23 | 24 | 47 | 69 |
| Number of employees at third year after joining, as of April | 21 | 23 | 47 | 69 |
| Retention | 91.3% | 95.8% | 100% | 100% |

Employee tenure (as of March 2010)

| | Male | Female | Total |
|---------------------------|---------------------------|---------------------------|---------------------------|
| Average age | 41 years old and 9 months | 41 years old and 7 months | 41 years old and 9 months |
| Average continuous tenure | 19 years and 4 months | 19 years and 5 months | 19 years and 1 month |

Re-employment

In response to measures that raise the eligibility age for special payments of the old age pension, we have introduced a retiree re-employment scheme to ensure a stable life after retirement. MGC provides in principle all employees the opportunity to continue working if they are healthy and desire to do so. Having motivated employees continue to play an invaluable role in the company helps to make it a vibrant workplace.

Re-employment of retirees

| | FY2006 | FY2007 | FY2008 | FY2009 |
|--------------------------------|--------|--------|--------|--------|
| Workers desiring re-employment | 76 | 77 | 65 | 68 |
| Re-employed workers | 76 | 77 | 65 | 68 |
| Re-employment rate | 100% | 100% | 100% | 100% |

Social contributions and other support

We take pride in the fact that our employees contribute to various social activities in their everyday lives. In 2009, to encourage more social activities, we introduced a special paid leave such as "volunteer holiday" or "donor holiday." We also provide employees with paid leave for public service activities such as the saibanin (jury) system, creating an environment in which employees can actively contribute to society.

Work-life balance

At MGC we believe that a proper work-life balance is vital. To help promote this idea we have implemented a no-overtime day, encourage our employees to take their paid leaves, and introduced flextime as well as a system that allows employees to roll-over expired annual leave. In order to support employees with children or aging parents who need assistant care, we introduced a childcare leave and nursing-care leave system, in addition to a system allowing shorter working hours, to help employees balance work with family life.

Together with Stakeholders

Maternity leave

| | FY2006 | FY2007 | FY2008 | FY2009 |
|---|--------|--------|--------|--------|
| Number of employees on maternity leave before & after birth | 4 | 6 | 5 | 4 |
| Number of employees on childcare leave* | 5 (1) | 5 | 6 (1) | 4 |

* Number in () indicates men on childcare leave

Family care leave

| | FY2006 | FY2007 | FY2008 | FY2009 |
|---------------------------|--------|--------|--------|--------|
| Employee exercising leave | 0 | 1 | 1 | 0 |

Ensuring 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. For new employees in particular, we have a “mentor system,” which helps new staff gain independence as both an MGC employee, and as a member of society.

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 guidelines for the prohibition of child labor and forced labor—have been communicated to our group companies overseas.

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 (such as a Personnel System Review Committee, etc.) 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.

With Shareholders and Investors

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.

General meeting of shareholders

The annual shareholders meeting is held avoiding peak days so that as many shareholders can attend as possible. MGC is also endeavoring to send the convocation notice as 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, facilities tours

MGC holds results presentations for securities analysts and institutional investors following the announcement of its interim and year-end financial results, in addition to conducting tours of its facilities. In 2009, tours of Tokyo Techno Park and Saudi Methanol Company (Saudi Arabia) were arranged.



The interim results briefing in March 2010



Tokyo Techno Park tour

Responsible Care (RC) Activities

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).



Scope of this Report

Organization

All domestic business sites of MGC and its Group companies in Japan dealing with chemicals

Reporting period

RC activities: from January 1, 2009—December 31, 2009 (includes some activities in 2010).
Environmental performance data: from April 1, 2009—March 31, 2010.

Environment and Safety Management

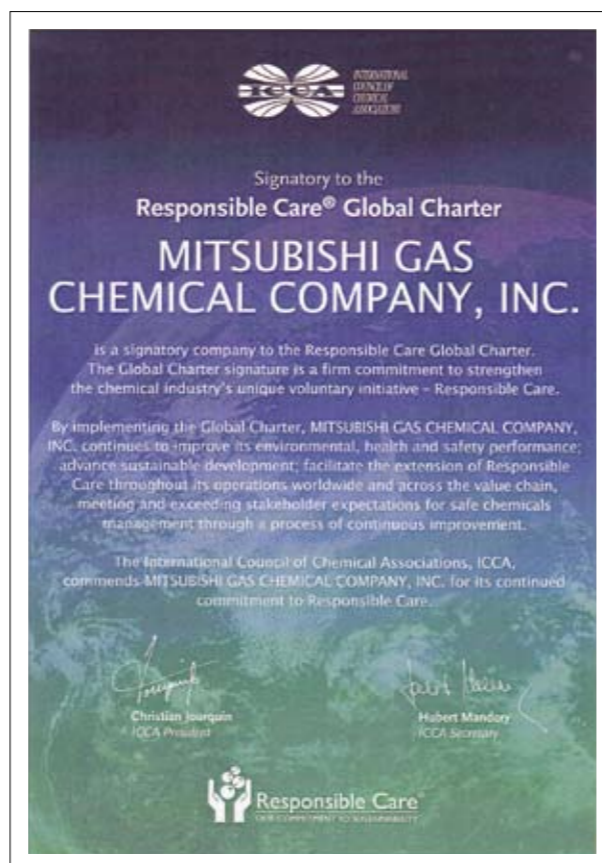
Sustainable development, building a recycling-based society, and safe operations are the three critical business challenges that MGC faces. Responsible Care (RC) is our response to both the environment and safety issues, and it has been rolled out throughout the company.

Support for the Responsible Care Global Charter

In conjunction with chemical industry associations worldwide, MGC signed the "RC Global Charter" in June 2009, to strengthen global Responsible Care related activities.

Key elements of the Responsible Care® Global Charter

1. Adopt global Responsible Care core principles
2. Implement fundamental features of national Responsible Care programs
3. Commit to advancing sustainable development
4. Continuously improve and report performance
5. Enhance the management of chemical products worldwide—Product Stewardship
6. Champion and facilitate the extension of Responsible Care along the chemical industry's value chain
7. Actively support national and local Responsible Care Governance processes
8. Address stakeholder expectations about the chemical's industry's activities and products
9. Provide appropriate resources to effectively implement Responsible Care



Responsible Care Global Charter certificate

Fundamental Policies on Environment and Safety

MGC, as an important member of the community, makes an effort to earn social trust by recognizing our responsibility to contribute to the community and to secure the environment and safety, and by thinking of how 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 Accident, Zero Occupational Injury and Environmental Preservation

Fundamental Policies

- Ensuring of health and safety in our operations
- Securing security management of facilities and increasing self-maintenance technologies and skills
- Reducing environmental burden in business activities
- Ensuring safety in use, handling and disposal of products
- Development of environmentally-friendly and safety-conscious products and technologies
- Ensuring environmental conservation and safety in the logistics of obtaining raw materials, and storing and delivering our products
- Building society's confidence in us
- Providing support to subsidiaries and affiliates in implementing their own RC activities
- Continuously improving our RC management system

We shall comply fully with applicable domestic laws and foreign rules and shall also cooperate with related international organizations, international and national administrative organs and nongovernmental organizations as required.

Message from the Director in Charge of Environment and Safety

MGC Group does not limit its compliance to observing laws and regulations. We undertake a variety of environment and safety activities based on our firm belief in RC, taking voluntary and responsible steps to ensure both environmental preservation and safety in our operations.

In terms of environmental preservation, we have set and are trying to achieve numerical targets for chemical emissions reduction, industrial waste reduction and energy conservation. In terms of safety, we are working towards an accident- and injury-free workplace.

In order to reduce the risk of accidents and injuries further, we are promoting a company-wide project to foster a culture of organizational safety, as with importance of natural healing capacity for human health.

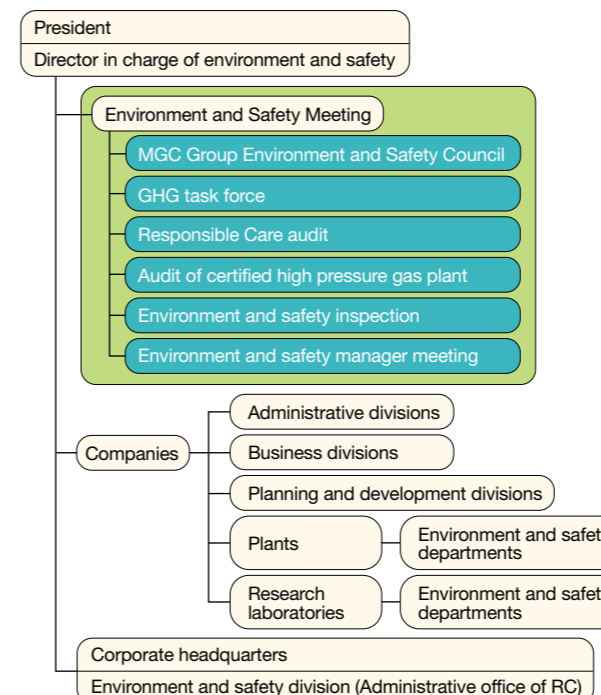
We will continue to improve and strengthen these activities. While we address new challenges we will concentrate on environmental and safety activities as our corporate responsibility.



Ageishi Kuniaki
Managing Executive Officer

Responsible Care Promotion System

All of MGC's divisions from both a company 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, and takes steps to make continuous improvements in the PDCA cycle based on the RC mid-term targets and annual activity targets.



RC Audit in 2009

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. In 2009, this comprehensive audit included an assessment of our adherence to applicable business laws (acknowledgment), compliance (responsibility), as well as a check of conditions and operating status of our standard procedures. Finally, it evaluated our efforts to foster a safety culture.

Audit period

August—October, 2009

Auditee

6 Plants (including former Tokyo Techno-Center)
3 Laboratories
Business divisions of 4 companies
Purchasing & Logistics Center

Audit findings

Full conformity (23 cases)
Non-conformity (0 cases)
Improvement orders (34 cases)
Comments (21 cases)

Follow-up issues identified in previous year

After items had been identified in the previous year, the response of each plant confirms that the proper measures were taken.



Auditee presentation



Confirmation of documented evidence

Results and Plans for RC Activities

Every five years MGC announces a new medium-term RC plan, and establishes yearly plans in pursuit of achieving the goal. It then evaluates the results of the activities to help the company meet its designated targets.

* Description of Distribution Safety, Dialogue with Society, and RC in general, has been omitted.
 ★★★ Achieved ★★ Mostly achieved ★ Further efforts required

| RC Area of Activity | RC Medium-Term Plan 2006 - 2010 | 2009 RC Action Plan | 2009 Achievements | Evaluation | 2010 RC Action Plan |
|--------------------------------|---|--|---|------------|--|
| Occupational Health and Safety | ■ Achieving Zero Occupational Injury | 1. Promote participation by all in <i>Hiyari-Hatto</i> (near miss) suggestion activities 2. Promote occupational safety and process safety risk assessment 3. Improve construction safety management | 1. Achieved full participation at some sites, now working to ensure success in other sites. 2. Revised guideline in March 2009, now embed risk assessment based on this new focus. 3. Clarified roles and responsibilities, and educated respective staffs about them. | ★ | 1. Continue daily activity (hazard foreseeing activities, <i>Hiyari-Hatto</i> (near miss) extraction activities, 5S activities) 2. Practice risk assessment 3. Establish AZ Project • Construct a safety education system • Enhance communications |
| | | 1. Promote AZ Project (cultivation of safety culture, verifying and complying with safety rules, thorough education and training, promotion of preventive maintenance) 2. Improve management of aging facilities (including piping) | 1. Working on various activities to cultivate safety culture. 2. By introducing a company-wide facility management system, the work of "transparency," "information sharing" and building up facility management information have all helped to improve general facility management. | ★ | • Improve management of aging facilities (including piping) 4. Devise emergency response training 5. Improve guidance for subcontractors' occupational injury prevention |
| Environmental Preservation | ■ Reduce energy consumption rate index to below 85% of 1990 levels | 1. Strive to implement energy-saving measures while ensuring the stable operation of each process, and aim to reduce energy consumption rate index by 1% or more than the previous year. | 1. Energy consumption rate index worsened by 5.1% than the previous year. We implemented energy saving measures, which helped us achieve a 2.2% reduction in energy consumption compared with 2008 levels; however the economic slowdown and equipment problems resulted in a worsening energy consumption rate index. | ★ | 1. By working on energy saving measures while ensuring the stable operation of each process, we will improve energy consumption rate index and reduce greenhouse gas emissions. (We take part in Japan Chemical Industry Association (JCIA) activities as part of the Japan Business Federation's Low Carbon Society Action Plan.) |
| | ■ Reduce greenhouse gas emissions rate to below 80% of 1990 levels | 1. Through Energy saving measures and promotion of fuel conversion, we plan to reduce greenhouse gas emissions rate by 1% or more than the previous year. | 1. Greenhouse gas emissions rate has worsened by 0.5% over previous year A fuel conversion at the Mizushima Plant helped increase the use of natural gas, which reduced the negative impact of the higher emissions rate. | ★ | |
| | ■ Reduce PRTR substances emissions by 10% over 2004 levels. | 1. Devise and execute a plan to focus on reduction program for high-emission amount substances (setting a target value) | 1. For sites with high substance emissions, we have created and executed plans for reduction. The specific substances are: dichloromethane, xylene, acetone, n-hexane, etc. Emissions of chemicals on JCIA's PRTR substance list have been reduced 13%, VOC emissions have been reduced 17% over 2004 levels. | ★ | 1. Identify key PRTR substances (including pseudocumene) and VOC need to be reduced, then devise and execute a reduction plan with specific target values. |
| | ■ Reduce VOC emissions by 10% over 2004 levels. | | | ★ | |
| | ■ Achieve Zero Waste Emissions | 1. Each of our sites has either a zero emission ratio or a final landfill reduction target, which they aim to achieve as part of our efforts towards zero emissions. | 1. Achieved zero emissions at 5 production sites Final landfill at our production sites totaled 134 tons, a reduction of 25% compared with 2008's total of 179 tons. | ★ | 1. Sites where targets have been met will continue their efforts to further reduce final landfill. 2. Sites where targets were not achieved will set a landfill target and strive to achieve zero emissions. |
| | 1. Promote green purchasing (office supplies, etc.) | 1. Green purchasing efforts are an established practice at all of our sites. | ★ | | |
| Chemicals and Product Safety | ■ Offering the latest Material Safety Data Sheet (MSDS) • Support for the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) | 1. Revising and Offering Support for GHS Harmonized MSDS Improve efficiency of GHS classification and label element editing | 1. Use of GHS classification and labeling standard for MSDS even when if not legally required. We are offering customers GHS adapted versions in order. We are making improvements to GHS classification and label element editing procedure to increase efficiency. | ★ | 1. GHS support (JIS compatible) for MSDS will be implemented by December 2010, And they will be offered to customers. |
| | ■ Product safety assessment • Participate in Japan Challenge Program (Check existing chemicals) • Comply with REACH regulations • Assess new substances appropriately ■ Promote the development of environmentally friendly products and energy saving technologies | 1. Respond appropriately to the Japan Challenge Program 2. Implement REACH registration accurately 3. Promote safety assessment of new products at times of development 4. Promote development of products with lower environmental burden and energy saving technologies | 1. Participating in 4 substance safety information programs, and proceeding as planned 2. Fast-track support for substances with a 2010 registration deadline 3. Aim to promote safety assessment of new substances by carrying out "new product risk assessment" 4. Products with an environmental or energy saving focus, such as new technologies in soil remediation, oil pollution detergents and high performance-damping materials. | ★ | 1. Respond appropriately to the Japan Challenge Program 2. Respond appropriately to the REACH regulations, including Europe's new CLP rules 3. Promote safety assessment at times of new product development (eg. acute toxicity, Ames test, primary skin irritation) 4. Promote development of products with lower environmental burden and energy saving technologies |

Occupational Health and Safety, Process Safety and Disaster Prevention

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

Safety Philosophy

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

Occupational Health and Safety Initiatives

In order for MGC to achieve its no accident goal, each site must take part in daily safety activities (*Hiyari-Hatto* (near miss) activities, 5S activities, hazard foreseeing activities, etc.), in addition to our efforts in the areas of safety training and education for risk assessment, and measures to promote mental health.



Niigata Research Laboratory / Mental health workshop



Tokyo Techno Park / Emergency response training



Kashima Plant / Hazard foreseeing training

Safety performance

In 2009 there were two occupational injuries that caused lost time. One of them was an electric shock with after effects (grade of disability: grade 3).

Change in lost time injury frequency rate*1

| | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|------------------------|---------|---------|---------|---------|---------|
| MGC | 0.29 | 0.92 | 0.59 | 1.43 | 0.57 |
| Chemical industry | 0.90 | 0.88 | 1.10 | 0.84 | 0.72 |
| Manufacturing industry | 1.01 | 1.02 | 1.09 | 1.12 | 0.99 |

*1 Frequency Rate: Number of casualties of occupational injuries per one million actual working hours

Change in lost time injury severity rate*2

| | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 |
|------------------------|---------|---------|---------|---------|---------|
| MGC | 0.00 | 0.20 | 0.01 | 0.07 | 2.14 |
| Chemical industry | 0.07 | 0.10 | 0.04 | 0.07 | 0.13 |
| Manufacturing industry | 0.09 | 0.11 | 0.10 | 0.10 | 0.08 |

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

Preventing occupational injuries at subcontractors

MGC strives to prevent work-related injuries from occurring at our subcontractors by establishing construction safety rules, providing information about all types of safety measures, as well as inviting them to participate in MGC-sponsored safety workshops. Our subcontractors also benefit from the improved guidance through mutual participation in Health and Safety Committee meetings.



Mizushima Plant / Yard work safety workshop

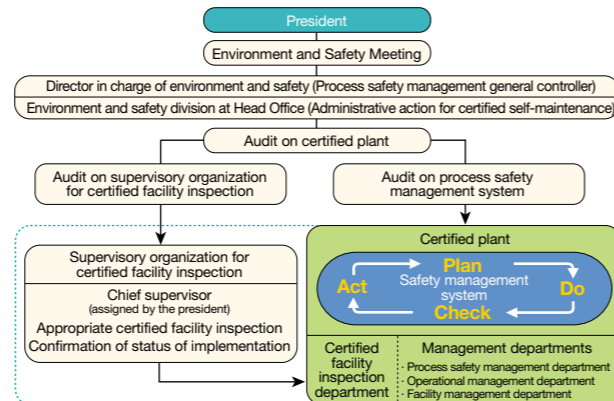
Process Safety and Disaster Prevention Activities

To prevent the occurrence of accidents and injuries, it is important to ensure the safety of production processes and the soundness of facilities. Moreover, it is critical that the company maintain safe operations. At each site we conduct inspections and renewal planning for aging facilities, and prioritize inspections, repairs and renewals according to its (each aging facility) risk and importance.

Certified high pressure gas plants

We conduct audits of our certified high pressure gas plants under the direction of the Director in charge of environment and safety (Process Safety Management General Controller). Accordingly, our Niigata Plant and Mizushima Plant are "high pressure gas safety management code certified" high pressure gas plants. 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 of high pressure gas process



Emergency response

As a precaution, MGC has established a disaster prevention system at each of its sites, and conducts various drills according to the annual plan.



Yokkaichi Plant / Disaster drill



Kashima Plant / Joint disaster drill



Mizushima Plant / Training of fire protective clothing & respirator



Yamakita Plant / Ammonia leak training



Hiratsuka Research Laboratory / Fire extinguisher training

Accident and injury information sharing

MGC has a "transmission of safety information policy," outlining how to take advantage of the information and confirm the situation. In addition, we share information about any occupational injuries and incidents (accidents, irregularities) that occur among our Group companies.

Form of sharing safety information

Accident Eradication Project (AZ Project)

MGC launched the Accident Eradication Project (AZ Project: Accident Zero) in February 2008, in order to prevent the occurrence of serious accidents such as the one that took place at Niigata Plant in December 2007, and to curtail the increasing tendency of such incidents. This project is active at all of our sites. This project is active at all of our sites.

Priority objectives and key policies

Priority objectives

Eradicate accidents and occupational injuries

Key policies

- (1) Cultivate a safety culture
- (2) Reaffirm and ensure compliance with regulations, company rules and policies concerning safety
- (3) Thorough education and training
- (4) Promote preventive maintenance

2-year achievement and future activities

Since 2008, we have tried to devise activities that match the characteristics of each site and instill the concept of "safety culture." However, in 2009, there were eight accidents (including at subcontractors), so we were unable to meet our zero accidents target.

Based on our 2-year review, from 2010 we will focus more efforts on communications as a soft tool while continuing to take specific actions for improvement of hardware.



Tokyo Techno Park / Fire Service Act (Japan) Education



Niigata Plant / Scaffolding training including subcontractors



Mizushima Plant / Practice in FTA course



Hiratsuka Research Laboratory / AZ education using CAI

Environmental Burden of Business Activities

The overall environmental burden of our business in 2009 is displayed in the table below. Each MGC Group business has continued to make headway in making efficient use of the input resources and making reductions in the environmental emissions.

Total of MGC Group*1

| FY 2008 | FY 2009 |
|--------------------------------|--------------------------------|
| Number of production sites: 38 | Number of production sites: 39 |

| INPUT | Units | 2008 | 2009 |
|---|----------------------|--------|--------|
| Energy consumption (crude oil equivalent) | 1,000 kℓ | 628 | 593 |
| Water consumption | 1,000 m ³ | 44,570 | 45,420 |
| Breakdown | Tap water | % | 2 |
| | Industrial water | % | 59 |
| | Groundwater | % | 3 |
| | River water | % | 34 |
| | Others | % | 2 |

| OUTPUT | Units | 2008 | 2009 |
|--|----------------------|--------|--------|
| Emissions to atmosphere | | | |
| Greenhouse gas emission (CO ₂ equivalent) | k tons | 1,577 | 1,364 |
| SOx emissions | tons | 393 | 263 |
| NOx emissions | tons | 956 | 744 |
| Soot and dust emissions | tons | 72 | 24 |
| Released to water area | | | |
| Drainage volume | 1,000 m ³ | 37,310 | 37,785 |
| COD emissions | tons | 300 | 261 |
| Total nitrogen emissions | tons | 278 | 299 |
| Total phosphorus emissions | tons | 54 | 71 |
| Generation of waste | | | |
| Transfer to off-site | tons | 34,410 | 33,164 |
| Final landfill | tons | 3,508 | 1,678 |
| Notified substances under PRTR Law | | | |
| Emissions (Air) | tons | 1,188 | 1,166 |
| Emissions (Water) | tons | 49 | 46 |
| Emissions (soil) | tons | 0 | 0 |
| Transfers | tons | 693 | 741 |

MGC Stand Alone*2

| FY 2008 | FY 2009 |
|-------------------------------|-------------------------------|
| Number of production sites: 8 | Number of production sites: 8 |

| INPUT | Units | 2008 | 2009 |
|---|----------------------|--------|--------|
| Energy consumption (crude oil equivalent) | 1,000 kℓ | 531 | 493 |
| Water consumption | 1,000 m ³ | 39,600 | 40,475 |
| Breakdown | Tap water | % | 1 |
| | Industrial water | % | 58 |
| | Groundwater | % | 1 |
| | River water | % | 38 |
| | Others | % | 2 |

| OUTPUT | Units | 2008 | 2009 |
|--|----------------------|--------|--------|
| Emissions to atmosphere | | | |
| Greenhouse gas emission (CO ₂ equivalent) | k tons | 1,334 | 1,161 |
| SOx emissions | tons | 280 | 174 |
| NOx emissions | tons | 863 | 680 |
| Soot and dust emissions | tons | 60 | 15 |
| Released to water area | | | |
| Drainage volume | 1,000 m ³ | 33,789 | 34,263 |
| COD emissions | tons | 250 | 226 |
| Total nitrogen emissions | tons | 252 | 273 |
| Total phosphorus emissions | tons | 51 | 68 |
| Generation of waste | | | |
| Transfer to off-site | tons | 7,634 | 7,392 |
| Final landfill | tons | 179 | 134 |
| Notified substances under PRTR Law | | | |
| Emissions (Air) | tons | 167 | 190 |
| Emissions (Water) | tons | 39 | 38 |
| Emissions (soil) | tons | 0 | 0 |
| Transfers | tons | 323 | 342 |

*1 The data used for the total of MGC Group is the sum of the main domestic manufacturing and processing businesses.

*2 The former Tokyo Techno-Center is included in the number of MGC's stand-alone production sites

Environmental Accounting

Using the Ministry of the Environment's guidelines on environmental accounting, the cost of environmental preservation through MGC's business activities and the result of those activities have been calculated quantitatively, and published for the public's review.

Environmental Preservation Cost

The cost of environmental preservation activities includes the investment costs of installing environmental preservation facilities and the expenses associated with running and managing those facilities as well as the cost of research and development into environmentally friendly products.

Investments

The total investment in 2009 was 990 million yen. The main items of that investment were the enhancement of tank vent gas recovery facilities at the Mizushima Plant, and enhancement of the exhaust gas treatment facilities at the Kashima Plant.

Expenses

Total expenses in 2009 were 10.22 billion yen. Of these, the highest expense was 3.48 billion yen for research and development, accounting for 34% of the total. Representing 23% of the total, the second largest expense was 2.34 billion yen being for environmental preservation activities.

Benefits of Environmental Preservation Activity

Apart from the reduction in environmental burden that resulted from our environmental preservation efforts, there were positive economic benefits, too, such as cost savings.

Environmental preservation benefit

Greenhouse gas emissions were reduced in FY2009 compared with FY2008. The results are shown on the environmental burden of business activities page.

Economic benefit

We generated additional revenue by selling valuable waste for recycling and re-use by other companies, and by cost savings from reduced energy consumption.

Economic benefit

| Title | Item | Amount (millions of yen) |
|----------------------------------|-------------------------|--------------------------|
| Income | Cost saving | 86 |
| Profit on sale of valuable waste | Effect by energy saving | 418 |

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

| Breakdown | | | Main areas of activity | Investment (millions of yen) | Expense (millions of yen) |
|---------------------------|--|----------------------------|--|------------------------------|---------------------------|
| Onsite cost | Pollution prevention cost | Air pollution prevention | Renewal, repairs and maintenance of emission gas scrubber, etc. | 391 | 651 |
| | | Water pollution prevention | Renewal, repairs and maintenance of waste water treatment facility, etc. | 207 | 2,060 |
| | | Soil, Noise | Prevention of soil infiltration, odor control, and groundwater level measurement | 36 | 11 |
| | Global environmental preservation cost | | Maintenance of cogeneration facilities, reducing energy loss | 40 | 2,343 |
| | Resources recycling cost | | Material and thermal recycling of waste | 13 | 894 |
| Up or down stream cost | | | Retrieval and reuse of product container | 0 | 36 |
| Management activity cost | | | Maintaining green spaces, maintaining environment management systems | 25 | 612 |
| R & D cost | | | Development of energy-saving technologies and environmentally friendly products | 282 | 3,487 |
| Social contribution cost | | | Greening the surrounding area, and supporting crusades against illegal dumping, etc. | 0 | 10 |
| Environmental damage cost | | | Compensation for environmental preservation | 0 | 125 |
| Total | | | | 992 | 10,229 |

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

Period: From April 1, 2009 to March 31, 2010

Range: 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. This includes depreciation allowance.

Global Warming Prevention

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

MGC's Overall Performance

In FY 2009, MGC's total energy consumption and greenhouse gas emissions were as follows. In both cases, our manufacturing plants accounted for more than 97% of the total.

| | Energy consumption (10 ³ kl—crude oil equivalent) | Greenhouse gas emissions (k tons—CO ₂ equivalent) |
|---------------------------------|--|--|
| Manufacturing sector | 493.3 | 1160.6 |
| Office sector | 2.0 | 3.3 |
| Transportation sector (shipper) | 9.1 | 24.2 |
| Total business activities | 504.3 | 1188.1 |

Focusing on the manufacturing operations, the results for FY 2009 and targets for FY 2010 are as follows.

Energy consumption rate index

Result: 1.00 compared to FY 1990
(Target: 0.85 or less by FY 2010)

Greenhouse gas emissions rate index

Result: 0.84 compared to FY 1990
(Target: 0.80 or less by FY 2010)

Manufacturing Plant Initiatives

Through various efforts to conserve energy and convert to natural gas, we are working towards reductions in Greenhouse gas (GHG) emissions in the manufacturing section of our plants.

In 2009 energy consumption and GHG emissions were substantially lower than the previous year, although this was partly due to decreased production. GHG emissions, in particular, were 13% lower thanks to the fuel conversion to natural gas (LNG) at the Mizushima Plant. This resulted in lower emissions than in FY 1990.

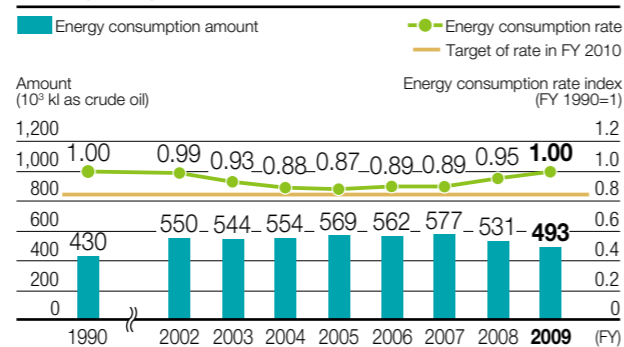
However, the energy consumption rate—as part of our global warming prevention target—was approximately 5% worse than the previous year, while the GHG emissions rate was 0.5% worse.

One of the energy conservation measures undertaken in 2009 can be seen in the following cases, in which we achieved an energy reduction equivalent to 12,000 kl of crude oil (GHG emissions were reduced by 20,000 tons or more). One of the best examples came from the Mizushima Plant, where Exhaust Gas Re-burning System is expected to contribute significantly to an improvement in energy efficiency once the utilization rate improves.

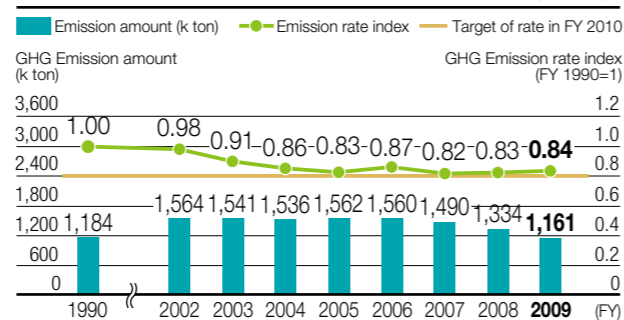
Energy conservation measures in 2009

- Improved thermal efficiency by installing Exhaust Gas Re-burning System
- Reduced steam vapor by improving distillation tower efficiency
- Improved yield and extended catalyst life through catalyst modification
- Energy reduction through optimized operating conditions

Trend of energy consumption amount and consumption rate (Plants)



Trend of GHG emission amount and emission rate (Plants)



Actual emission coefficient from the Act on Promotion of Global Warming Countermeasures (Japan) is adopted as CO₂ emission coefficient of purchased electricity.



Mizushima Plant / Exhaust gas re-burning system

Development and Utilization of Clean Energy

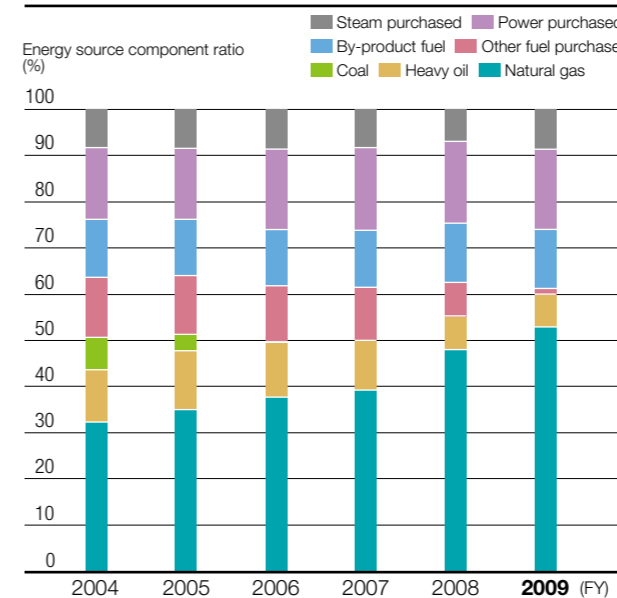
In Niigata Prefecture, MGC has been actively conducting exploration and development work of natural gas, a clean fuel that has low emissions of CO₂ for each calorie of energy, less sulfur and other impurities. We have deployed natural gas at our Niigata Plant, where it is used as both a raw material and an energy source.

Also, at other plants, we are promoting fuel conversion from coal and heavy oil to natural gases (including city gas, LNG).

In 2009, due to an increase in the use of LNG at Mizushima Plant, the use of energy derived from natural gas topped 50% company-wide.

In addition to using natural gas, we are also participating in a project in Hachimantai, Akita Prefecture, that supplies geothermal steam—a type of renewable energy—to neighboring powerplants.

Trend of energy source component ratio



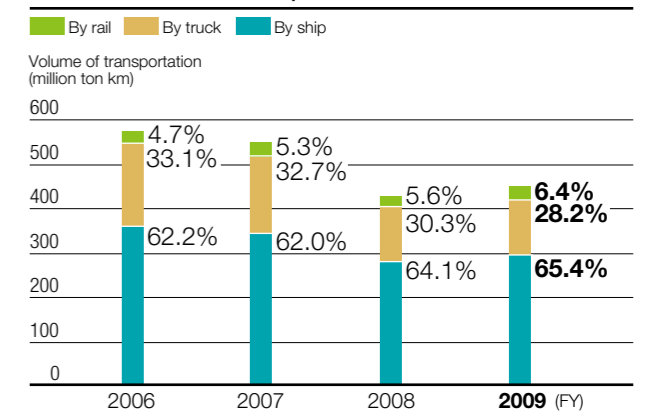
Initiatives in the Transportation Sector

In the transportation sector (freight transport as a shipper), we are endeavoring to reduce energy consumption by using larger trucks and through a modal shift to rail transportation.

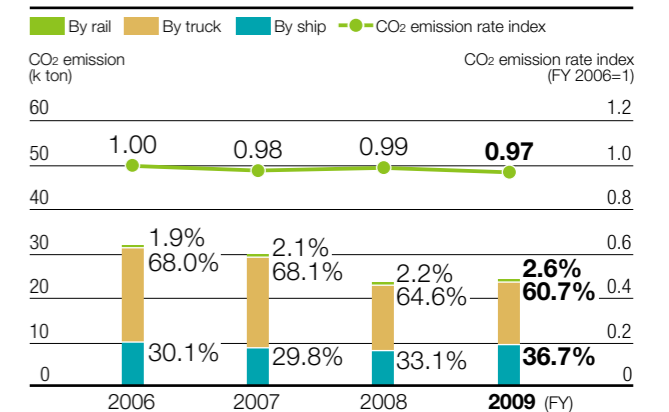
With regard to the modal shift, proportion of rail transportation has increased from 4.7% to 6.4% over these four years, while over the same period transport by truck has decreased from 33% to 28%.

These measures have contributed to CO₂ emissions rate index reduction of approximately 3% over four years.

Trend of volume of transportation



Trend of CO₂ emission



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 and computers when not in use.

At the Tokyo Techno Park, which opened in October 2009, the main building has adopted a new high-performance air conditioning, lighting, and insulation, which are expected to lead to significant energy savings.

In the residence sector, we participated in the ABC (Accelerate By Chemicals) Initiative which is a voluntary CO₂ reduction activity promoted by the Japan Chemical Industry Association (JCIA). In 2009, more than 500 volunteers participated in it. They achieved an average CO₂ reduction of nearly 2 kg per person (per family), amounting to over 300 tons in total.

We are encouraging all our employees to participate in this year again.

Chemical Emissions

We continue to make efforts to reduce emissions of Pollutant Release and Transfer Register (PRTR) law specified substances and Volatile Organic Compounds (VOC). The numerical targets for these reductions are set out in our Responsible Care medium-term plan.

PRTR Law Specified Substances

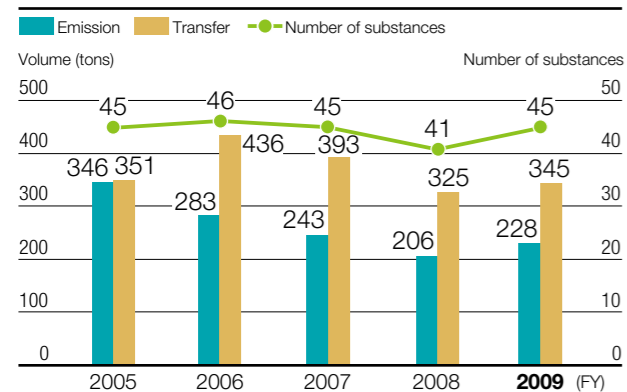
There are 354 substances listed in the PRTR law. In adherence with this law, MGC made notifications for 45 substances in FY 2009.

Total annual emissions were 228 tons, an increase of 22 tons (11%) over the previous year.

Transfer was 345 tons, an increase of 20 tons (6%) over the previous year.

These results are mainly due to a production rise in associated with PRTR emissions.

Trend of the chemicals on PRTR list



* The previously reported total transfer amount for FY 2008 has been corrected.

PRTR Substances on the JCIA List

The Japan Chemical Industry Association (JCIA) lists 481 PRTR substances voluntarily, which include PRTR law chemicals. Of these, MGC has released 75 substances in FY 2009, resulting in total annual emissions of 441 tons.

This was an increase of 38 tons (9%) over the previous year, however according to our Responsible Care (RC) medium-term plan, it was a reduction of 13% compared with our benchmark year, FY 2004, in which 507 tons were emitted.

Volatile Organic Compounds (VOC)

In terms of VOC in FY 2009, from highest to lower emissions we had: dichloromethane, methanol, xylene, methyl ethyl ketone, etc. There were 21 substances in total, with an emission of 369 tons, an increase of 44 tons (14%) over the previous year. Out of the four listed above (except methanol), the increase in emissions is due to increased production.

Comparing this with our RC medium-term plan, there was a reduction of 17% over our benchmark 443 tons of FY 2004.

The registered chemicals on the basis of the PRTR Law (results in FY 2009)

| No. | Reg. No | Chemicals | FY 2009 | | | | Transfer total |
|----------------------|---------|--|-----------------|-------|------|-------|----------------|
| | | | Emission amount | | | | |
| | | | Air | Water | Soil | Total | |
| 1 | 145 | Dichloromethane | 144.7 | 0.0 | 0.0 | 144.7 | 9.6 |
| 2 | 283 | Hydrogen fluoride and its water soluble salt | 0.3 | 32.8 | 0.0 | 33.1 | 0.1 |
| 3 | 63 | Xylene | 24.7 | 0.0 | 0.0 | 24.7 | 5.8 |
| 4 | 227 | Toluene | 8.3 | 0.0 | 0.0 | 8.3 | 35.8 |
| 5 | 40 | Ethylbenzene | 5.0 | 0.0 | 0.0 | 5.0 | 0.0 |
| 6 | 304 | Boron trifluoride and its compounds | 0.1 | 2.9 | 0.0 | 2.9 | 1.2 |
| 7 | 224 | 1,3,5-Trimethylbenzene | 2.2 | 0.0 | 0.0 | 2.2 | 36.7 |
| 8 | 310 | Formaldehyde | 0.2 | 1.6 | 0.0 | 1.8 | 5.2 |
| 9 | 42 | Ethylene oxide | 1.3 | 0.0 | 0.0 | 1.3 | 0.0 |
| 10 | 217 | Trichlorofluoromethane (CFC-11) | 1.1 | 0.0 | 0.0 | 1.1 | 0.0 |
| 11 | 299 | Benzene | 0.7 | 0.0 | 0.0 | 0.7 | 0.0 |
| 12 | 253 | Hydrazine | 0.2 | 0.3 | 0.0 | 0.5 | 0.0 |
| 13 | 266 | Phenol | 0.0 | 0.4 | 0.0 | 0.4 | 11.2 |
| 14 | 320 | Methylmethacrylate | 0.3 | 0.0 | 0.0 | 0.3 | 54.3 |
| 15 | 312 | Phthalic anhydride | 0.2 | 0.0 | 0.0 | 0.2 | 42.7 |
| 16 | 54 | Epichlorohydrin | 0.2 | 0.0 | 0.0 | 0.2 | 0.4 |
| 17 | 108 | Inorganic cyanide | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| - | - | Other chemicals | 0.2 | 0.2 | 0.0 | 0.1 | 141.8 |
| Total (45 chemicals) | | | 189.8 | 38.2 | 0.0 | 228.0 | 344.6 |

Waste Reduction

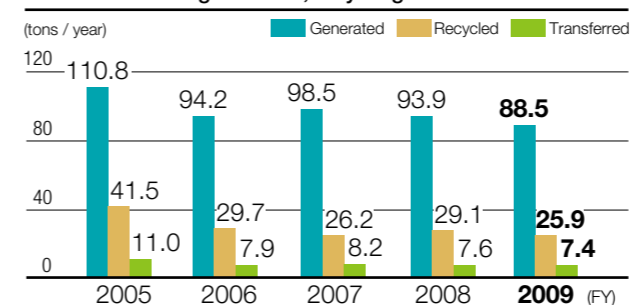
MGC defines its zero emissions as "Reduce final landfill to 0.3% or less to total generated waste amount through promotion of 3Rs**"

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

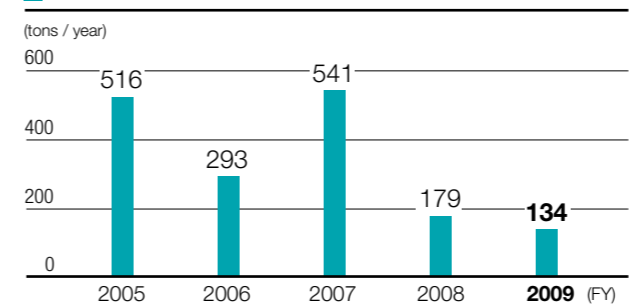
Waste Reduction Achievements

In FY 2009, total final landfill continued to fall, and was 134 tons. The increase experienced in FY 2007 was due to one-off sludge and soil waste of 285 tons.

Trend of waste generation, recycling and transfer



Final landfill



Zero Emissions of Waste

In FY 2009, five of our eight production sites keep zero emissions. The total emissions at the eight production sites also achieved the target.

Plants achieved zero emissions in fiscal 2009

| Plant | FY 2008 | FY 2009 |
|-----------------------------|---------|---------|
| Niigata Plant | 0.16% | 0.18% |
| Mizushima Plant | 0.05% | 0.07% |
| Yamakita Plant | 0.14% | 0.01% |
| Naniwa Plant | 0.09% | 0.05% |
| Saga Plant | 0.00% | 0.00% |
| Total of 8 production sites | 0.19% | 0.15% |

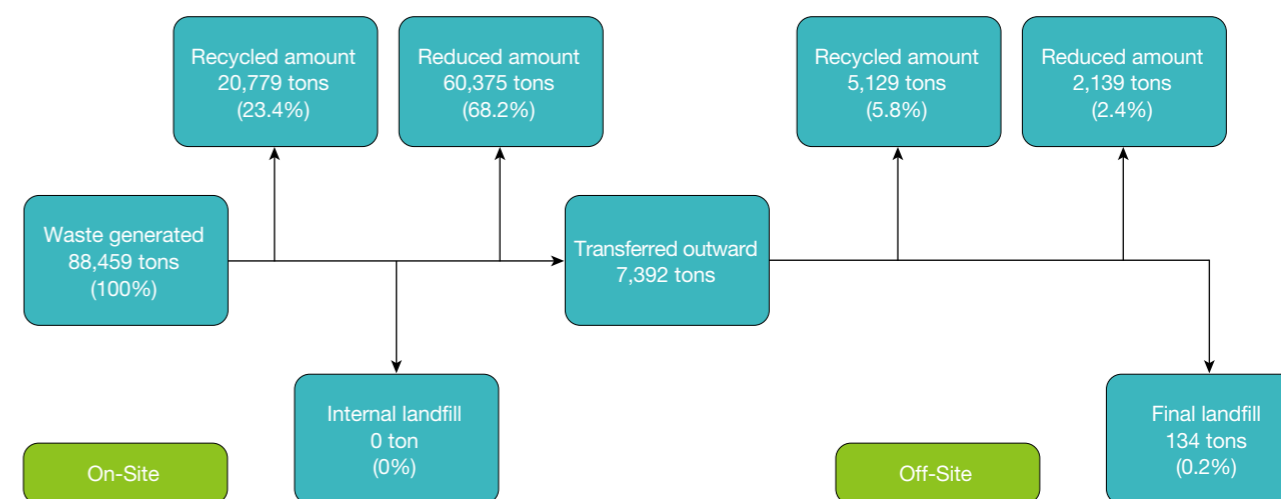
Zero emissions : 0.3% ≤ Final landfill ÷ Waste generated

Polychlorinated Biphenyl (PCB) Management

We take special precautions in the storage management of PCB-contaminated equipments, in accordance with the PCB Waste Disposal Act.

We completed early disposal registration with the Japan Environmental Safety Corporation in 2006, but no disposal was carried out in FY 2009.

Actual Results of Waste Treatment in Fiscal 2009



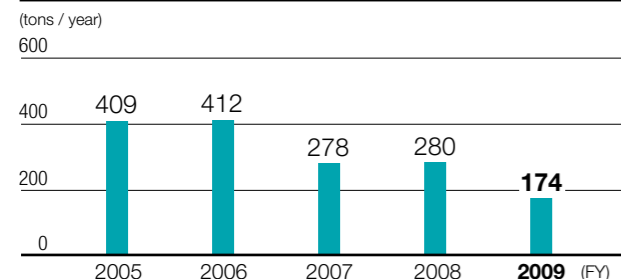
Air, Water, Water Resources

To protect the environment's air and water resources, we follow every relevant law and regulation, and comply with their respective limits to reduce any pollution and contamination.

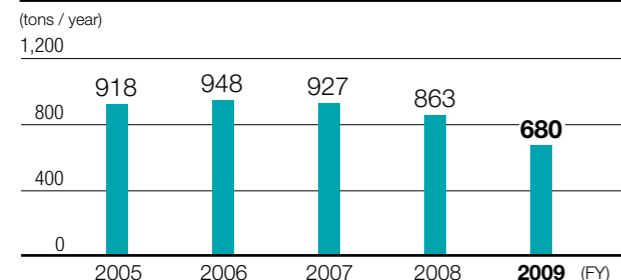
Prevention of Air Pollution

We measure the emissions of sulfur oxides (SOx), nitrogen oxides (NOx), soot and dust, and other toxic substances, contained in the emission gas of boilers and other combustion facilities, to ensure that we stringently adhere to regulated limits through our operations.

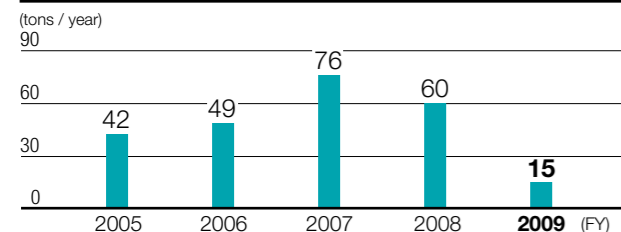
Emission of SOx



Emission of NOx



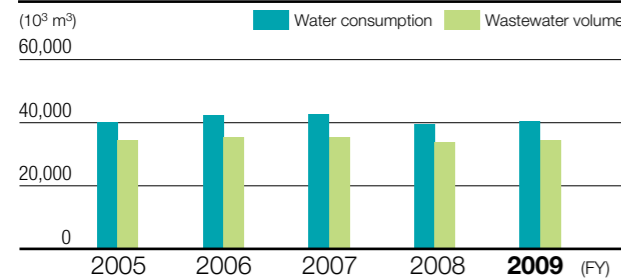
Emission of soot and dust



Effective Use of Water Resources

We are committed to understanding and efficiently using water resources.

Water use / wastewater volume

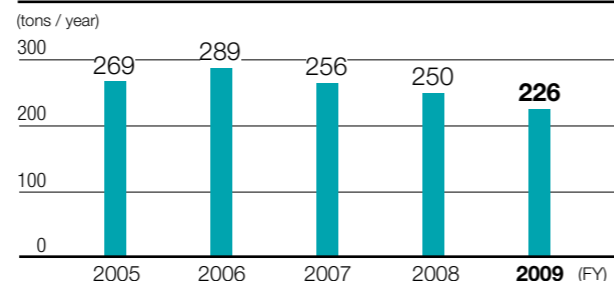


Prevention of Water Pollution

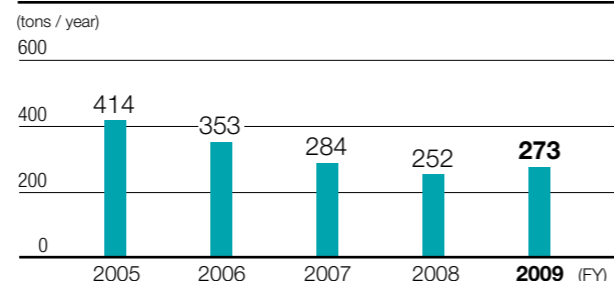
Wastewater from the production process goes through a treatment facility where it is pH balanced and treated for microorganisms before being sent into rivers, seas, and sewerage systems. We are committed to operating in compliance with regulations for wastewater by ensuring that chemical oxygen demand (COD), total nitrogen, total phosphorus, pH and other chemicals are within tolerance levels.

COD and total nitrogen emissions were revised to reflect a correction of the past results.

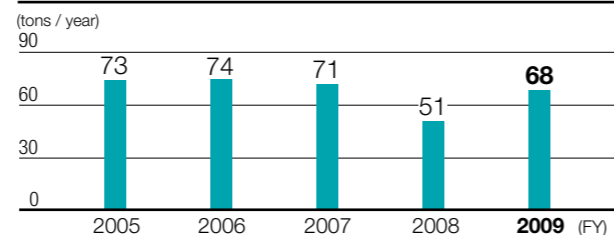
Emission of COD



Emission of total nitrogen



Emission of total phosphorous



Mizushima Plant activated sludge treatment equipment

Environmentally Friendly Products and Research and Development

Under the principles of sustainable development, we are working aggressively to develop products and technologies that help energy and resource conservation, low environmental burden and reduction of waste.

MGC's Environmentally Friendly Products and Technologies

| Field | Products/Technologies | Contribution to Environmental Preservation |
|-----------------------------|--|--|
| Plastics | MX nylon resin | Non chlorinated resin with high gas barrier capability, contributing to easy recycling and energy savings through weight saving of plastic bottle |
| | lupilon® (Polycarbonate) | Resin with excellent transparency, durability and weatherability, used for various purposes, contributing to resources savings |
| | Reny® (Polyamide MXD6) | Mainly used for side mirror stay of vehicle, contributing to the energy saving by light weight property |
| | lupital® (Polyacetal) | Resin with excellent mechanical properties and used as the substitute for metals in various purposes |
| | lupiace® (Modified polyphenylene ether) | Resin mainly used for office automation equipment, contributing to the energy saving for its light weight property |
| | AI polymer® (Polyamideimide) | Contributing to smaller and lighter electronic office equipment on the basis of excellent heat resistance |
| Water treatment agents | Diafresh® series (wastewater treatment) | |
| | OR-SON AT | Agent making persistent organic materials decomposable and drastically reducing the generation of sludge |
| | F-SON | Agent for separation and treatment of fluorine compounds, which can easily reduce the fluorine content to 8 ppm or less |
| | NEOSOL | Agent to prevent the oil-base paint mist from adhering and to make easy the recovery of dispersed paint in the recycled water in a painting booth |
| | NEOPOCK | Chemical agent for effective aggregation and separation of water-based paint, water soluble polymer, etc. |
| | Deslime®, Contlime® | Water treatment agent for recycled cooling water in piping aiming both the cleaning and long-life of said water, and high thermal efficiency |
| Better preservation ability | DEOPOWER | Deodorant agent to solve the issue of bad odor at sewage-treatment plant, etc. |
| | AGELESS® | Agent keeping quality and freshness in food sector and, as a result, reducing waste of foods and promoting efficiency of production and distribution |
| | AGELESS OMAC® | New packaging film with an oxygen absorbing ability, can act as an alternative to canned foods, contributing to weight saving and waste reduction |
| | RP System® | Oxidation and corrosion resistant system for metals and electronic parts, contributing to reduction of waste |
| | PharmaKeep® | Agent keeping quality and performance in medicines and medical device, and improving their shelf life |
| Chemicals | AIR-G | Eco-friendly system for insect proof and preservation of cultural property, used as the substitute for methyl bromide referred to as ozone layer depleting substance |
| | Dimethyl ether (DME) | Application of clean fuel DME made from natural gas to the automobile fuel, etc. |
| | Hydrogen peroxide | Substitute for bleaching agents containing chlorine, used in a pulp and paper production process |
| Technologies, etc. | GASKAMINE 240® | Reduction of solvent by applying it to non-solvent epoxy resin (two liquid type) because of its lower viscosity |
| | Development of fuel cell | Research and development of methanol fuel cell which enables direct electricity generation without fuel reforming into hydrogen. Under test of introduction as a power supply for welfare electric vehicle |
| | Materials for environmentally friendly printed circuit board | Heat resistant materials for printed circuit board, suitable for lead-free solder. Printed circuit board without brominated flame retardant |
| | Persulfates | Cleaning up contaminated underground water and soil |
| | Mild Fenton method | Soil/underground water clean up technology that decomposes organic substances under neutral conditions in combination with hydrogen peroxide and catalyst |
| | Production process of aromatic aldehydes | Reduction of harmful waste by the completely closed process of super acid catalyst |
| | MGC-MH process | Process for the production of high purity hydrogen gas from methanol and water |
| | Geothermal power generation | Application of geothermal steam to electric power generation |
| | AR | Capacitor mainly consisted of AR(carbon) and aluminum is the electricity storage system with benefit of long life and less harmful materials |
| | Neofade® (damping material) | High performance damping material, preventing vibration and noise |

Safety Management of Chemicals and Products

MGC clearly explains properties, safety and handling of its chemical products, as well as deploys various activities to protect the environment, and to ensure the health and safety of all who use it. Additionally, MGC participates in domestic and international chemicals safety assessment activities which publicly disclose chemicals safety information.

Safety Assessment of Chemical Substances and Products

MGC has established regulations for product safety assessment and operates a system that ensures product safety. The company makes its products available only after it has reviewed a product's marketability by analyzing, classifying, and assessing product hazard (hazardous nature of the material) and risk (hazard and exposure) at each step of the production process, beginning with a basic survey of raw materials through marketing (supply) to final disposal of the product.

Participation in the Japan Challenge Program

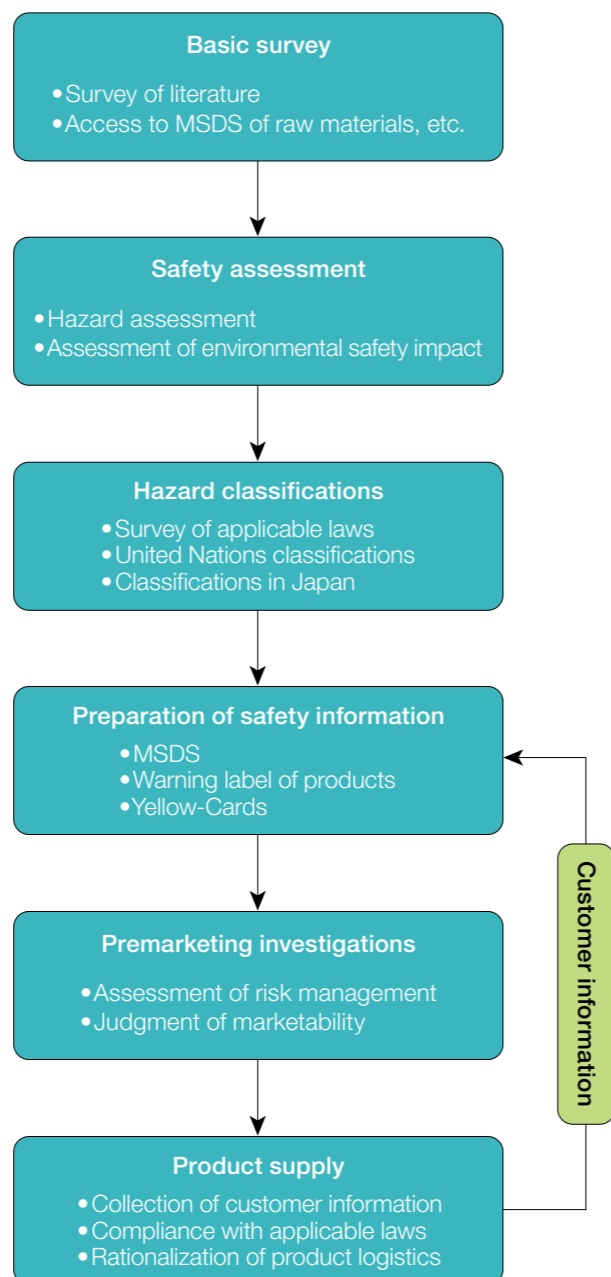
The Japan Challenge Program is a program in which the government works in conjunction with industry to accelerate the collection of safety information for existing chemical substances, and disseminates that information widely to the public.

Of these substances, there are 126 organic compounds produced in Japan and imported in quantities greater than 1,000 tons per year that are either not contained in the Organization for Economic Cooperation and Development (OECD)'s HPV Program* or there is no plan to collect information for them in other countries. MGC is committed to this program, and is contributing by collecting safety information about four substances.

* HPV Program: HPV (High Production Volume Chemicals): A safety assessment program covering production of chemicals greater than 1,000 tons annually in a single country.

Compliance with REACH Regulations

With the implementation of the new European Chemicals Management Regulations "REACH (Regulation concerning the Registration, Evaluation, Authorization and Restriction of Chemicals)", MGC and MGC Group companies are adding information collected regarding import volume (in EU) and product use to their existing store of safety information. Using the additional support required by REACH enables them to offer users a safer way of handling chemical products.



Providing Safety Information

MGC provides Material Safety Data Sheets (MSDS) to customers and transporters through its sales channels and agents. Products are also clearly labeled, and we provide transporters with yellow-cards that they are required to carry with them during the time of transportation.



GHS compliant MSDS

GHS Compliant MSDS and Labels

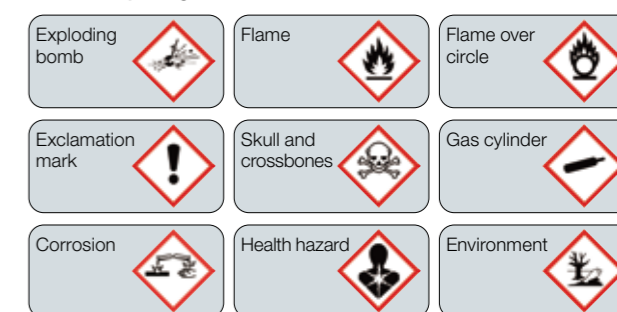
MGC prepares and provides MSDSs for all of its products, including items which are not legally required to do so. Based on revision of Japanese Industrial Standards, MGC is gradually shifting to new revised MSDS which are compliant with GHS* by December of 2010. With regard to the label, all of MGC's product labels will be GHS compliant by the end of March 2011.

* GHS: The Globally Harmonized System of Classification and Labeling of Chemicals. Hazards of chemicals are classified under certain standards and are indicated clearly with pictograms on labels and MSDS documentation. Ultimately, the information contributes to disaster prevention, human health, and environmental preservation.



GHS compliant product labels

Hazard pictograms



GLP Certified Testing Facility

MGC operates Good Laboratory Practice (GLP) certified testing facilities at its Niigata Research Laboratory for biodegradability testing and mutagenicity (Ames) testing, which complies with legal notifications based on the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. and the Industrial Safety and Health Law.

In addition to these tests, MGC also has facilities to conduct acute oral toxicity tests, primary skin irritation tests, and pathogenicity tests, and carries out safety testing of chemicals handled within the MGC Group.



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

Emergency Response in Distribution

MGC requires all transporters to carry yellow cards in the event of an accident that occurs during product transportation. We have set up a wide-area support system that includes supplying emergency goods and equipment to production sites and establishing communication between sites so that there can be an emergency response to accidents that occur during transportation. Because of our materials and equipment, and our response system preparation, we are able to assist local police or fire departments on request if an accident occurs during transportation of the other companies' product in the vicinity of our plant.



Yellow-Cards



Wide-area support vehicles carrying emergency goods and equipments

RC Activities on Site

Niigata Plant

Address: 3500 Matsuhama-cho, Kita-ku, Niigata-shi, Niigata 950-3121, Japan
Tel: +81-25-258-3474

A Message from the Niigata Plant Manager

Surrounded by beautiful greenery and abundant water and natural resources (natural gas), it is our mission to ensure that the Niigata Plant maintains good relations with the local community and coexists in harmony with nature.

Since the start of operations more than fifty years ago, we have worked to build trust in our environment, safety and product quality improvement efforts while upgrading our infrastructure. We also aim to create new value by developing environmentally friendly products in the fields of polymers, energy and life sciences.



Takuji Shitara
Plant Manager

Main products

- Methanol, Ammonia, and their derivatives
- Methaxylene diamine
- MX Nylon
- Bio-related products

ISO14001 certification

| ISO14001 certification date | Certification body |
|-----------------------------|--------------------|
| June 1998 | DNV |

Environmental burden data (FY 2009)

| | |
|---|--------|
| Water consumption (10 ³ m ³) | 12,481 |
| GHG emission (k tons-CO ₂) | 367 |
| NOx emission (tons) | 283 |
| SOx emission (tons) | 0 |
| Total drainage volume (10 ³ m ³) | 9,489 |
| BOD emission (tons) | 33 |
| Waste transferred offsite (tons) | 2,402 |
| Final landfill (tons) | 85 |

| PRTR substance | Emission (tons) | Transfer (tons) |
|---------------------|-----------------|-----------------|
| Ethylene oxide | 1.2 | 0.0 |
| Dichloromethane | 0.7 | 6.9 |
| Methyl methacrylate | 0.3 | 54.2 |



Technical High School students on a Plant tour

Niigata Research Laboratory

Address: 182 Tayuhama Shinwari, Kita-ku, Niigata-shi, Niigata 950-3112, Japan
Tel: +81-25-259-8211

Message from the Research Laboratory Director

The Niigata Research Laboratory is located in the northern part of Niigata city. We cooperate with our neighbor, the Niigata Plant, in a variety of RC activities. At this laboratory we have GLP compliant facilities for a wide variety of chemical safety testing, and play an important role within MGC to conduct the whole company's chemical safety assessments.

We aim to maintain good relations with our local community, and develop new products that contribute to the formation of a recycling-based society, with the participation of all.



Takafumi Abe
Laboratory Director

Main research themes

- Process improvement
- Catalyst
- Pharmaceutical intermediates
- New energy-related research
- Biotechnology
- Life science



Fire extinguisher training



"The fear of fire and explosions" learning experience

Mizushima Plant

Address : 3-10 Mizushima Kaigan Dori, Kurashiki-shi, Okayama, 712-8525, Japan
Tel: +81-86-446-3822

A Message from the Mizushima Plant Manager

At the Mizushima Plant, we have several themes aimed at for environmental preservation. These include: "promotion of rational use of energy," "reduce emissions of harmful air pollutants," "reduce emissions of water pollutants," and "promotion of reduced waste and zero emissions."

In recent years, we have seen the positive impact of fuel conversion to natural gas, the installation of energy-efficient boilers and turbines, and implementation of improved emission gas recovery equipment. In FY 2010, we plan to make improvements to our facilities that will reduce fluoride emissions.



Kenji Inamasa
Executive Officer
Plant Manager



Participation in the Takahashigawa River watershed clean-up

Main products

- Xylene isomers
- m-Xylene derivatives
- Specialty aromatic products
- Polyols

ISO14001 certification

| ISO14001 certification date | Certification body |
|-----------------------------|--------------------|
| May 2000 | JCQA |

Environmental burden data (FY 2009)

| | |
|---|--------|
| Water consumption (10 ³ m ³) | 12,432 |
| GHG emission (k tons-CO ₂) | 519 |
| NOx emission (tons) | 361 |
| SOx emission (tons) | 171 |
| Total drainage volume (10 ³ m ³) | 11,065 |
| COD emission (tons) | 140 |
| Waste transferred offsite (tons) | 2,997 |
| Final landfill (tons) | 23 |

| PRTR substance | Emission (tons) | Transfer (tons) |
|--|-----------------|-----------------|
| Xylene | 24.7 | 5.7 |
| Hydrogen fluoride and its water-soluble salt | 33.0 | 0.0 |
| Ethylbenzene | 4.9 | 0.0 |

Hiratsuka Research Laboratory

Address: 6-2 Higashiyawata 5-chome, Hiratsuka-shi, Kanagawa 254-0016, Japan
Tel: +81-463-21-8600

Message from the Research Laboratory Director

At the Hiratsuka Research Institute, we have implemented several activities to help increase our safety awareness. Firstly, we have set a monthly goal of one *Hiyari-Hatto* (near miss) for each staff member. We also conduct pre-experiment safety reviews, risk assessment, and a safety patrol. In addition, we ensure that the employees of each department are involved in training exercises to prepare them to respond to potential industrial accidents, hazardous material leaks and earthquakes. The institute, located inside the Yahata industrial complex, is committed to working closely with neighboring MGC Group companies or others to ensure safety.



Toshiya Takagi
Laboratory Director



Hiratsuka City Deputy Mayor on tour



Hiratsuka area small-scale emergency training

RC Activities on Site

Yokkaichi Plant

Address: 4-16 Hinagahigashi 2-chome Yokkaichi-shi, Mie 510-0886, Japan
Tel: +81-59-345-8800

A Message from the Yokkaichi Plant Manager

The Yokkaichi Plant is located in the northern part of Mie Prefecture, surrounded by the natural beauty of Ise Bay and the Suzuka Mountains. The formerly polluted town has changed dramatically due to the establishment of basic environmental regulations, environmental planning as an environmental protection city. In response to these local initiatives the Yokkaichi Plant also received ISO14001 certification, changed boiler fuel to city gas, and has worked on environmental risk assessment.

We will continue to protect the living conditions in the area and promote activities that will help MGC enhance trust in the local community.



Yoshihiko Sekine
Plant Manager



Plant disaster prevention activity

Main products

- Hydrogen peroxide, Other industrial chemicals
- Polyacetal plastics

ISO14001 certification

| ISO14001 certification date | Certification body |
|-----------------------------|--------------------|
| August 1999 | JQA |

Environmental burden data (FY 2009)

| | |
|---|-------|
| Water consumption (10 ³ m ³) | 7,364 |
| GHG emission (k tons-CO ₂) | 77 |
| NOx emission (tons) | 22 |
| SOx emission (tons) | 2 |
| Total drainage volume (10 ³ m ³) | 5,834 |
| COD emission (tons) | 29 |
| Waste transferred offsite (tons) | 531 |
| Final landfill (tons) | 4 |

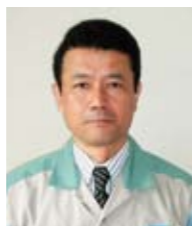
| PRTR substance | Emission (tons) | Transfer (tons) |
|----------------|-----------------|-----------------|
| Hydrazine | 0.4 | 0.0 |
| Formaldehyde | 1.0 | 0.0 |

Yamakita Plant

Address: 950 Kishi Yamakita-machi, Ashigarakami-gun, Kanagawa, 258-0112, Japan
Tel: +81-465-75-1111

A Message from the Yamakita Plant Manager

The Yamakita Plant, established in 1933, is nestled in the natural environment of the Tanzawa mountains. Even after all these years it is a unique plant in the way it exists side-by-side with the community. We aim to further strengthen the relationship of trust with the community by striving to develop a plant that can coexist with nature. In terms of environmental preservation activities we will proactively drive CO₂ reductions and zero emissions plans. We will also entrench process safety training through disaster prevention based on AZ activities.



Kuniaki Jinnai
Plant Manager



Safety training program by external instructors

Main products

- Derivatives of hydrogen peroxide
- Persulfates

ISO14001 certification

| ISO14001 certification date | Certification body |
|-----------------------------|--------------------|
| May 2000 | JQA |

Environmental burden data (FY 2009)

| | |
|---|-------|
| Water consumption (10 ³ m ³) | 6,444 |
| GHG emission (k tons-CO ₂) | 21 |
| NOx emission (tons) | 4 |
| SOx emission (tons) | 0 |
| Total drainage volume (10 ³ m ³) | 5,238 |
| COD emission (tons) | 9 |
| Waste transferred offsite (tons) | 340 |
| Final landfill (tons) | 0 |

| PRTR substance | Emission (tons) | Transfer (tons) |
|--|-----------------|-----------------|
| Hydrogen fluoride and its water-soluble salt | 0.0 | 0.1 |

Kashima Plant

Address: 35 Higashi Wada, Kamisu-shi, Ibaraki 314-0102, Japan
Tel: +81-299-96-3121

A Message from the Kashima Plant Manager

The Kashima Plant, located in the Kashima Eastern Industrial Complex, is surrounded by the Pacific Ocean to the east, and Tonegawa River to the west. Typified by the spreading riverside region, nearby are Itako and Kasumigaura, and Mt. Tsukuba can be seen in the distance here in this naturally rich environment.

The factory's basic business philosophy is taken from MGC's environment and safety policy of "No accidents, no occupational injury, and environmental preservation." Through a variety of RC activities we have garnered the trust of everyone in the area, and we strive to create a plant that contributes to society.



Katsushige Hayashi
Executive Officer
Plant Manager



Toxic substances leakage drill

Main products

- Hydrogen peroxide
- Polycarbonate plastics

ISO14001 certification

| ISO14001 certification date | Certification body |
|-----------------------------|--------------------|
| February 1999 | JQA |

Environmental burden data (FY 2009)

| | |
|---|-------|
| Water consumption (10 ³ m ³) | 1,609 |
| GHG emission (k tons-CO ₂) | 160 |
| NOx emission (tons) | 4 |
| SOx emission (tons) | 0 |
| Total drainage volume (10 ³ m ³) | 1,479 |
| COD emission (tons) | 15 |
| Waste transferred offsite (tons) | 387 |
| Final landfill (tons) | 11 |

| PRTR substance | Emission (tons) | Transfer (tons) |
|-----------------|-----------------|-----------------|
| Dichloromethane | 144.0 | 2.6 |

Tokyo Techno Park

Address: 1-1, Nijuku 6-chome Katsushika-ku, Tokyo 125-8601, Japan
Tel: +81-3-3627-9411

A Message from Tokyo Techno Park General Manager

After dismantling and removing old buildings and transforming the property into a magnificent new tower, we opened our Tokyo Techno Park in October 2009 as an urban research and development base. There are now plans for a university and a high-rise apartment close by, and we aim at a green techno park that is in harmony with the surrounding landscape.

The first priorities in research and development are environmental preservation and safety. Everyone working at the Techno Park is highly sensitive to them, and we are steadfast in our desire to build a safety-oriented culture.



Makoto Mizutani
Managing Executive
Officer
General Manager



First emergency drill

TTP internal organization

- Management Center
- Oxygen Absorbers Techno Center
- Electronics Materials R&D Center
- Tokyo Research Laboratory
- Main research topics
Electronic materials, specialty chemicals, environmental medicine, nanotechnology, next generation materials
- MGC Chemical Analysis Center



Fire extinguisher training at Oxygen Absorbers Techno Center

MGC Group's Environmental and Safety Activities

Twelve domestic subsidiaries of the MGC Group that handle the Group's chemical products (as of August 2010) are promoting environmental and safety initiatives at 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.

Activities of MGC Group Environment and Safety Council

Twice each year, MGC and the member companies in the council review the results of their environmental and safety activities as well as their annual plans, activity results, and reports regarding accidents and occupational injuries.



Accident and Occupational Injury Information Sharing

Since 2008, MGC and other Group companies have been sharing information about all occupational injuries and incidents (accidents or irregularities) that occur.

To further strengthen information sharing, in April 2009 MGC has formulated a Group-wide policy outlining "Rules for the Transmission of Safety Information," and established mechanisms for MGC Group companies to utilize such information and check its status.

Environmental and Safety Audits

With the director in charge of the environment and safety as team leader, we conduct 3 or 4 domestic and 2 or 3 overseas environmental and safety audits each year in support of the Group companies' environment and safety activities.

In 2009, audits were carried out on the following seven companies.

- Japan Circuit Industrial Co., Ltd. Headquarters Plant
- Eiwa Chemical Industry Co., Ltd. Ujitawara Plant
- Toyo Kagaku Co., Ltd. Mizushima Plant
- Fudow Co., Ltd. Hiratsuka Plant
- Thai Polycarbonate Co., Ltd.
- Thai Polyacetal Co., Ltd.
- AGELESS (Thailand) Co., Ltd.



Fudow Co., Ltd. / Hiratsuka Plant



AGELESS (Thailand) Co., Ltd.

MGC Group Companies Topics



Participating in a waste reduction competition in Fukushima prefecture (2009-2010). In October 2009 the Fukushima Prefecture Caravan came onto our site to boost activity. (Electrotechno Co., Ltd.)



The Osaka Plant conducted a training session to learn regular rescue methods from Toyonaka City fire brigade rescue personnel. 16 people took part. (MGC Filsheet Co., Ltd., Osaka Plant)



Participated in joint drills in the district. Rope tying, fire extinguisher training. Also participated in putting out a fire from an oil pan, and experienced big quake inside an earthquake simulator van. (Japan Finechem Co., Inc., Hiratsuka Plant)



Participated in the combined self-defense fire brigade indoor fire hydrant games in September 2009. Succeeded in raising fire awareness. (JSP Corporation, Kyushu Plant)



MGC Group Environment and Safety Council Secretariat visits each Group plant once every year, aiming to share activities by exchanging environmental and safety information. (At Japan Pionics Co., Ltd.)



Partner companies also participated in assessing electric cart risk (Toyo Kagaku Co., Ltd., Mitake Plant)

12 Member Companies of MGC Group Environment and Safety Council

Eiwa Chemical Industry Co., Ltd.

Manufacture and sale of blowing agents

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

MGC Filsheet Co., Ltd.

Manufacture of polycarbonate film and sheet

4-2242, Mikajima, Tokorozawa-shi, Saitama 359-1164, Japan
Tel: +81-4-2948-2151
<http://www.mgcs.jp/en/>

Electrotechno Co., Ltd.

Manufacture of copper-clad laminates

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

JSP Corporation

Manufacture and sale of foamed plastics

Shin-Nisseki Bldg., 4-2, Marunouchi 3-chome Chiyoda-ku Tokyo 100-0005, Japan
Tel: +81-3-6212-6300
<http://www.co-jsp.co.jp/english/>

Japan Finechem Co., Inc.

Manufacture and sale of fine chemicals and electronic products

Kayaba-cho Nakano Bldg., 22-15, Shinkawa 1-chome, Chuo-ku, Tokyo 104-0033, Japan
Tel: +81-3-3552-7611 <http://www.jfine.co.jp/eng/>

Shin Sanso Kagaku Co.

Manufacture of hydrogen peroxide

148-58, Yufutsu, Tomakomai-shi, Hokkaido 059-1372, Japan
Tel: +81-144-55-7337
<http://www.sskc.co.jp/>

Toyo Kagaku Co., Ltd.

Resinous molding processing

51-497, Aza-Doudou, Oaza-Morowa, Togo-cho, Aichi-gun, Aichi 470-0151, Japan
Tel: +81-561-39-0531
<http://www.toyo-kagaku.co.jp/>

Japan Circuit Industrial Co., Ltd.

Manufacture and sale of printed circuit boards

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

Japan Pionics Co., Ltd.

Manufacture and sale of gas purifiers and abatement system

3-3-32 Tamura, Hiratsuka-shi, Kanagawa 254-0013, Japan
TEL: +81-46-353-8300
<http://www.japan-pionics.co.jp/en/>

Japan U-PiCA Co., Ltd.

Manufacture and sale of unsaturated polyester resin and coating resins

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

Fudow Co., Ltd.

Manufacture and sale of molding resin

5F, NOF Shin-Yokohama Bldg., 2-15-16 Shin-Yokohama, Kouhoku-ku, Yokohama-shi, Kanagawa 222-0033, Japan
TEL: +81-45-548-4210
<http://www.fudow.co.jp/e-index.html>

Yonezawa Dia Electronics Co., Inc.

Manufacture of printed circuit boards, auxiliary materials for processing

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