Responsible Care®

Environmental Report

2006 Edition

English version

MGC Responsible Care Status

MGC

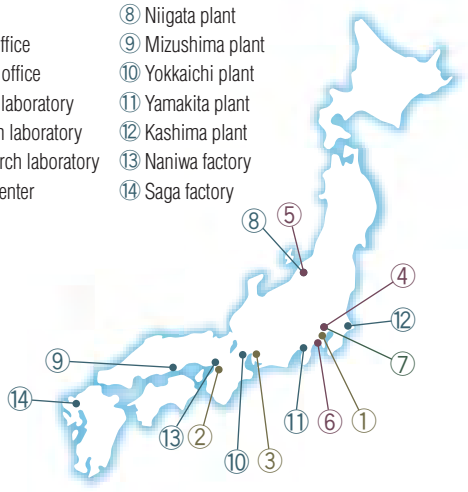
Profile of MGC

Profile of MGC (as of March 31, 2006)

Name	MITSUBISHI GAS CHEMICAL COMPANY, INC.
Address	Mitsubishi Building, 5-2, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8324, Japan
Established on	April 21, 1951
Capital	¥41.97 billion
Net sales	¥439.8 billion (Consolidated) ¥326.5 billion (Unconsolidated)
Number of Employees	4,466 (Consolidated) 2,159 (Unconsolidated)
Number of consolidated subsidiaries	30 companies
Number of related companies on the equity method	11 companies
URL :	http://www.mgc.co.jp/eng/menu.html (English) http://www.mgc.co.jp (Japanese)

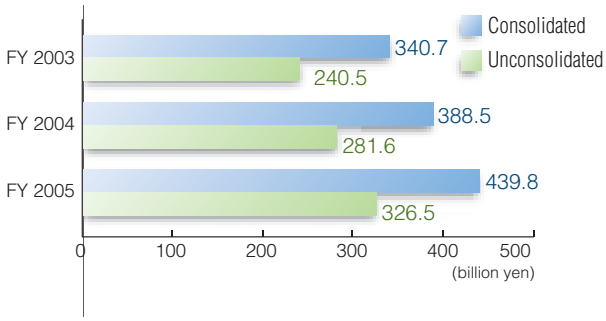
Main Business Sites in Japan

① Headquarters
② Osaka branch office
③ Nagoya branch office
④ Tokyo research laboratory
⑤ Niigata research laboratory
⑥ Hiratsuka research laboratory
⑦ Tokyo techno-center
⑧ Niigata plant
⑨ Mizushima plant
⑩ Yokkaichi plant
⑪ Yamakita plant
⑫ Kashima plant
⑬ Naniwa factory
⑭ Saga factory

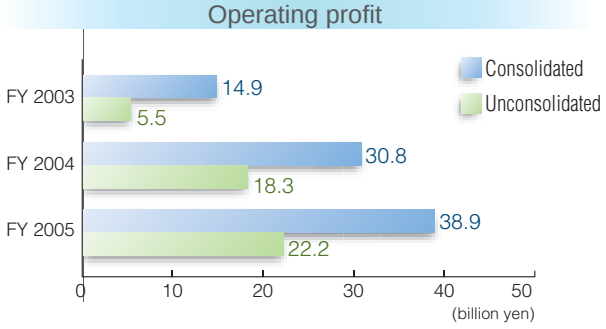


Financial highlight

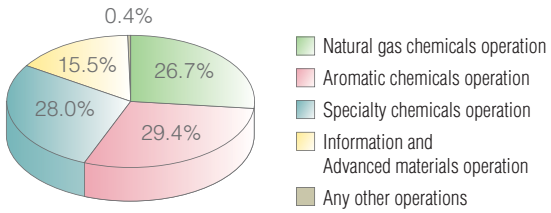
Net sales



Operating profit



Sales Ratio by operation (Consolidated)



Main products

Natural Gas Chemicals Company

- Methanol
- Formalin
- Ammonia
- Metylamines
- Methyl methacrylate
- Methacrylates
- Polyols
- Dimethylether
- Ubidecarenone (Co-enzyme Q_{10})
- ASC Super (Catalase)
- Hydrogen generation device from methanol
- Catalysts

Aromatic Chemicals Company

- m-Xylene
- o-Xylene
- p-Xylene
- Methaxylylene diamine
- 1,3-BAC
- MX nylon resin
- Toluic acid
- Aromatic aldehydes
- Trimellitic anhydride
- Pyromellitic anhydride

Specialty Chemicals Company

- Hydrogen peroxide
- Sodium percarbonate
- Persulfates
- Hydrosulfite
- Chemicals for electronic industries
- Monomer for plastic lens
- Polycarbonate resin (Iupilon®)
- Polyacetal resin (Iupital®)
- Modified polyphenylene ether (Iupiace®)
- Polyamide MXD6 (Reny®)
- Polyamideimide (AI polymer®)

Information and Advanced Materials Company

- Epoxy・BT resin copper clad laminates
- Materials for multi-layer printed circuit board
- BT resin®
- LE sheet®
- AGELESS® (oxygen absorber)
- Anaero pack®
- RP system®
- AGELESS・OMAC®
- Pharmakeep®

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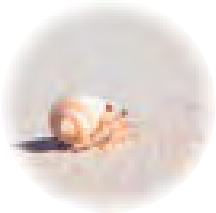


Editorial policy

This Environmental Report 2006 is issued to report MGC's Responsible Care (RC) Activities (Occupational health and safety, Process safety and disaster prevention, Environmental preservation, Product stewardship, Distribution safety, Dialogue with the community, Spectrum of RC) widely, and to promote our own RC activities.
This report was prepared with reference to the Environmental Reporting Guidelines (fiscal 2003 edition) of the Japanese Ministry of the Environment.

Scope of this report

Sites covered: All MGC's domestic workplaces
The environmental performance data are based on only those of plants where the production is carried out.
Period covered: From January 1, 2006 to December 31, 2006
Provided that the period of the environmental performance data are those from April 1, 2005 to March 31, 2006 (fiscal 2005).
Publication: March, 2007
The next publication scheduled: October, 2007

Message from the President

We, Mitsubishi Gas Chemical (MGC), strongly recognize that securing environmental preservation and safety is a crucial part of carrying out sustainable development of our sound business activities, and the voluntary improvement activities in which all of our employees participate positively for this purpose are indispensable, we have been expanding company-wide activities with the Responsible Care (RC) initiative securing as the effective means.

Since the launch of MGC Responsible Care activities concurrently with Japan Responsible Care Council (JRCC) at its inception in 1995, I am delighted to be able to inform you of the steady growth in a continuous upward spiral of the Plan-Do-Check-Act (PDCA) cycle with repeated trial and error.

Our environmental report has been issued every March after MGC issued the 2001 edition of the annual report and provides considerable information about our environmental and safety activities. As a result, I am again pleased to introduce you to a brief overview of our latest issue of the environmental report 2006 (Responsible Care status report 2006).

Fundamental Policies on Environment and Safety

MGC Responsible Care initiative was launched by the president's implementation rollout statement on RC both inside and outside MGC, and since then we have been working to stipulate our fundamental policies on the environment and safety on the basis of various activities and to disseminate these company-wide.

We have emplaced zero accident, zero occupational injury and environmental preservation among our fundamental policies on environment and safety, and have provided nine fundamental policy items in order to put into practice the policies referred to above. Additionally, ensuring corporate compliance was specified as a fundamental element for all activities.

Responsible Care Promotion System

For encouraging proactive Responsible Care activities, MGC has instituted the Responsible Care Promotion System, which is promoted by the entire department, and the president is the top promoter in this system.

Additionally, MGC has established the environment and safety meeting, RC audit and various committees for working on the necessary activities.

Every December, we regularly hold the environment and safety meetings, which are chaired by the president and consisted of all of our department heads, as the highest level meeting for sustaining our environment and safety activities. At this meeting, Responsible Care activities status of the past year is confirmed and activity targets for the next year are deliberated and adopted.

Establishment and execution of Activity Targets

Our Responsible Care activities cover the following scope (items).

- Occupational Health and Safety
- Process Safety and Disaster Prevention
- Environmental Preservation
- Chemicals and Products Safety
- Distribution Safety
- Dialogue with the Community

We have established RC Mid-term targets (5 years targets) and annual RC activity targets as our master plan to accomplish company-wide progress for every RC item.
Each plant and workplace has established activity targets in accordance with the master plan every year and all of their employees have participate in carrying out these RC activities for each item.

Responsible Care Audits

We have practiced Responsible Care audits as a means for confirming the status of achievement in the activity targets.
The RC audit team, which is lead by the director in charge of environment and safety, has been implementing for auditing of every workplace, and the team has carrying out its audits between August through October every year.
We recognized the RC audits program as the essential means for ensuring the spiraling up of the PDCA cycle and breaking out of ruts in RC activities. The matters to be improved, which are pointed out by the RC audits program, will be incorporated our next year's activity target.
In addition, the RC audits results should be notified to the environment and safety meeting.

Topics of Environmental and Safety Activities in fiscal year 2006

As part of our occupational health and safety program, aiming for achievement of zero occupational injury we gave the priority to prevention of human error and then we worked on the proactive promotion of HIYARI-HATTO (equiv. near miss) submission activity by all employees and the safety assessment for facilities and operation by our occupational risk assessment.
As part of our process safety and disaster prevention efforts, aiming for achievement of zero accidents, we have worked on the steady implementation of our prior safety evaluation procedures for the plans of new or additional plants, the revising of our disaster prevention schemes including mutual cooperation with the neighboring affiliate company's plants, and on the other hand, we have made efforts to solve the problem of loss of experience in the company with the increase in the number of retired employee in 2007.
As part of our environmental preservation activities, as our countermeasures against global warming we have set targets for the reduction of both the energy consumption rate index and the Greenhouse Gas (GHG) emission rate index and then we have launched the effort to achieve them company-wide. In addition we have focused on the reduction of both Pollutant Release and Transfer Register (PRTR) substances and the emission of waste.
As part of our chemicals and products safety efforts, we have taken the appropriate introduction of Globally Harmonized System of Classification and Labeling of Chemicals (GHS), participation in and supporting programs to collect and address safety information on specific chemicals in Japan, so called the Japan Challenge Program, and the response to the new EU chemicals control regulation REACH.
As part of our distribution safety activities, we have ensured the carrying out of our distribution audits program, the comprehension of the Carbon dioxide emission during our distribution services and the promotion of modal shift.
As part of our dialogue with the community, we issued our environmental report (Japanese and English) while we have participated in the Japan Responsible Care Council (JRCC) member experience exchange meetings, community events and etc.

This environmental report covers our concrete Responsible Care activities described above, I sincerely hope that you will read this report and will deepen your understanding about and appreciation of our activities.
I welcome any suggestions and assistance you may offer on how we can continue to be a very trusted company and partner for you, just as we should continue to strive in our efforts to earn and maintain our social trust.

March, 2007

Representative Director, President
Hideki Odaka

Environmental and Safety Management

We, Mitsubishi Gas Chemical Company, Inc. (MGC), are understanding activities to promote sustainable development and creation of a recycling-based-society as important business objectives.

Corporate Philosophy

MGC is fully committed to making contributions towards development in harmony with society through the creation of a diverse range of value based on chemistry.

Management Philosophy

The management of MGC is dedicated to providing comfortable workplace, paying due respect to the will and ability of our employees, and is determined to create energetic workgroups.

With a view towards worldwide needs, our marketing efforts will focus on identifying and enlarging the world's markets.

With full knowledge of the market's needs, we will implement creative research and development to nurture the seeds of our efforts to realize the best results.

By making efforts to upgrade technology, preserve the environment and promote safety, we will engage in the manufacture of better quality products.

We are a transparent company, where all employees work towards a common goal.

As part of our implement action of our Corporate Philosophy and Management Philosophy, we have been carrying out the Integrated Safety Management System. This system is a set of activities aimed at preserving the environment and ensuring safety at all stages of chemical substance life cycles from development and manufacturing to distribution, use, final consumption, and disposal.

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 a safe workplace and products, 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 loads in business activities
- Ensuring safety in use, handling and disposal of products
- Developing of environment-friendly and safety-conscious products and technologies
- Ensuring environmental preservation and safety in the logistics of obtaining raw materials and storing and delivering our products
- Enhancing of society's confidence to us
- To provide support to our subsidiaries and affiliates in implementing their own RC activities
- Continuously improving our RC management system

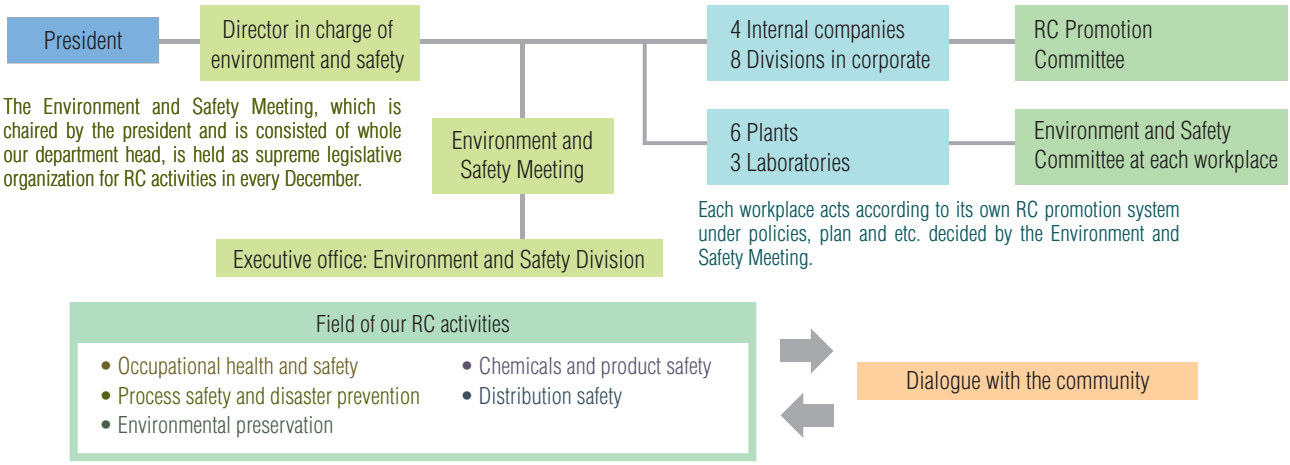
We shall comply fully with applicable domestic laws and foreign rules and shall also cooperate with related international organizations, international and national administrative organs, and nongovernmental organizations whenever needed.

Message from the Director in charge of environment and safety

Director, Senior Managing Executive Officer
Shoji Uematsu

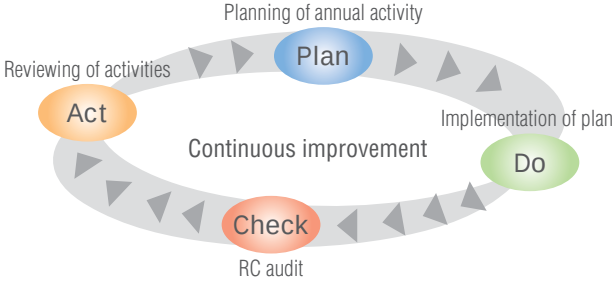
Nowadays, it is indispensable for the development of enterprise to steadily bear the obligations of the social responsibility and at the same time to ensure that it has obtained society's trust. Under the circumstances, the requirements are not only corporate compliance but also the sustainable improvement in all our Responsible Care activities and the fundamental basis is to prevent crisis involving hazard or risk through confidence-building activities of risk prediction and based on this the discovery of latent hazard or risk while taking appropriate measures to respond to them.
Securing the environmental preservation and safety, which have prevention as a keyword, should be carried forward by our executives with leadership and our employee by voluntarily participating in cooperative activities, and from that standpoint I believe that all of us assume some responsibility for all of our operations.

Responsible Care Promotion System



PDCA cycle in Responsible Care activities

MGC continuously carries out the improvement by planning our activities on RC (Plan), executing the plan (Do), auditing the results of activities and confirming the issues (Check) and reviewing the activities by executives and making them reflect to the next year plan (Act).



Status of ISO14001 certification

Aiming for promoting the effective environmental preservation activity, MGC had promoted the introduction of environmental management system since 1997 and all plants obtained the certification of ISO 14001 in 2001.

Status of ISO14001 certification

Plant	month/year	Organization
Niigata	06/1998	DNV
Mizushima	05/2000	JCQA
Yokkaichi*	08/1999	JQA
Kashima	02/1999	JQA
Yamakita	05/2000	JQA
Tokyo Techno-Center	10/1998	DNV

*) includes Naniwa (certified in 2001) and Saga factories

Targets and Results of Responsible Care Activities

	Fundamental policies	RC Mid-term targets (2006-2010)	Activity targets in 2006
Occupational health and safety	Ensuring of health and safety in our operations	To achieve zero occupational injury	To enhance occupational health and safety activity across the organization To evaluate safety of facilities and works by occupational safety risk assessment To support our contractors safety activity
Process safety and Disaster prevention	Securing security management of facilities and increasing self-maintenance technologies and skills	To achieve zero accident	To implement safety assessment based on the detailed regulation for prior safety evaluation procedures for plan of new or additional plants To review effective disaster prevention schemes among abutting affiliate companies To improve process safety management system at certified plants
Environmental preservation	Reducing environmental loads in business activities	To reduce energy consumption rate below 0.9 compared with 1990	To reduce 1% or more of energy consumption rate compared with previous year
		To reduce GHG emission consumption rate below 0.8 compared with 1990	To reduce 1% or more of GHG emission consumption rate compared with previous year
		To reduce 10% emission of chemicals listed in PRTR compared with 2004	To reduce amount of PRTR chemicals emissions (achieved targets)
		To reduce 10% emission of VOC compared with 2004	To reduce amount of VOC emissions (achieved targets)
		To achieve zero emission of waste	To achieve zero emission of waste To promote green procurement (office and stationery supplies)
Chemicals and products safety	Ensuring safety in use, handling and disposal of products Developing of environment-friendly and safety-conscious products and technologies	To promote development of environment-friendly products and energy saving technologies To implement safety assessment of products To participate in Japan Challenge program To harmonize with REACH To assess new substances appropriately To provide latest MSDS (includes GHS harmonization)	To harmonize with related legal amendment quickly To utilize the latest MSDS To participate in Japan Challenge Program To understand and to evaluate our R&D from a view point of environment, safety and energy saving
Distribution safety	Ensuring environmental preservation and safety in the logistics for obtaining raw materials and storing and delivering our products	To reduce any environmental loads in logistics To ensure the safety in logistics To harmonize with the GHS	To harmonize with related legal amendment quickly To audit our logistic companies To count CO_2 emission in logistics To set CO_2 emission reduction target To promote modal shift and improve efficiency of distribution systems
Dialogue with the community	Enhancing of society's confidence to us	(To promote annual targets)	To publish Environmental Report 2005 To publish Environmental site Report To participate in JRCC dialogue meeting and industry segment activities To participate in activities and events in local communities
Spectrum of RC	To provide support to our subsidiaries and affiliates in implementing their own RC activities	To support their introduction of RC activity To audit for any affiliates in Japan and overseas	To enact MGC group environment and safety fundamental policies To develop annual environment, safety and health target based on the group fundamental policies To audit for any affiliates in Japan and overseas
	Continuously improving our RC management system	(To promote annual targets)	To review RC education and training curriculum To implement RC education and training To review our regulations and rules

Estimation Remarks　Achievement of targets:  　Necessity of more efforts:  　No activity: 

Results and status of activities	Estimation	Relevant page
● Hiyari-Hatto suggestion numbers are increasing, and operational visualization for the reduction of Hiyari-Hatto has been proceeded. The problem to be improved is the participation rate of employee. ● We are working on a full-scale occupational risk assessment. ● We supported our contractors' safety activity by mutual participation in safety and health committee.		11 12
● We implemented the safety assessment based on the detailed regulation or site rules. ● Our process safety and disaster prevention regulations were revised for reviewing disaster prevention system. ● Disaster prevention training with abutting affiliates was drilled. ● In certified plant on high-pressure gas, maintenance management system was developed and reviewed to correspond with amended regulations. ● In certified plant on boilers and 1st class vessels, staff gained knowledge such as aged deterioration provision by workshop for license renewal.		13 14
● In fiscal 2005, energy consumption rate decreased by 1.1% compared with previous year and by 0.88 compared with fiscal 1990. Our mid-term target has already been achieved.		19 21 22 23 24 25 26
● In fiscal 2005, because of fuel conversion to natural gas, GHG emission consumption rate decreased by 2.5% compared with previous year and this results in 0.83 compared with fiscal 1990. In fiscal 2006, the rate decreased by 1% compared with previous year.		
● In fiscal 2005, amount of PRTR chemicals emission increased by 8% compared with previous year. In fiscal 2006, because of countermeasure to factors causing this increase, the amount decreased by 1% compared with fiscal 2004.		
● In fiscal 2005, amount of VOC emission increased by 10% compared with previous year. In fiscal 2006, because of countermeasure to factors causing this increase, the amount decreased by 1% compared with fiscal 2004.		
● The volume zero of final disposal was achieved at the three plants. Final disposal in fiscal 2006 will be decreased by 100 tons compared with 516 tons in fiscal 2005. ● All workplace promote the green procurement by wider variety of goods.		
● All covered products by Industrial Safety and Health Low were labeled with GHS slip on container or package. ● Revised MSDS has been distributed to customers for effective utilization. ● Japan Challenge Program substances are planed to gather data on their safety and testing has been started. ● We proclaim the environment-oriented harmonization with sustainable society as our R&D policy, and we are promoting R&D from the view point of ecology, safety and energy saving.		15 16 17 18
● Container or package with GHS label based on the Industrial Safety and Health Low have been distributed since December for the object products of the low. ● Main contractor of logistic companies was audited by our auditor. ● For counting CO_2 emission in logistics, we introduced the new counting system and are doing test run. ● Because of test run on the counting system, CO_2 emission reduction target is not set. ● We have carried out modal shift and improved the efficiency of distribution systems from the possible ones.		16 22
● Our environmental report has been published every year and disclosed on our website. ● Two site environmental reports have been published. ● MGC, as a member of JRCC, has communicated with public, local administrative and neighboring companies by participating every year in RC community dialogue meeting at each district where our plants are located. ● We carried out the volunteer activities for cleaning and beautification around the workplace, the reception of plant visits and the opening of our welfare provisions. ● We actively participated in the volunteer activities for cleaning and beautification, the firefighting training and the festivals in local communities.		27 28
● MGC group's companies planed and implemented each annual environment, safety and health target based on environment and safety fundamental policies. ● MGC group's environmental and safety conference draw up the rules of a conference for promoting activity. ● We carried out the RC audit to our 3 domestics and 2 overseas subsidiaries and affiliates.		29 30 31 32
● RC education and training curriculums were reviewed and RC education textbook was prepared. ● Each workplace has RC education and training, disaster prevention training and emergency drill. ● Integrated Safety Management System Rule and related regulation were reviewed and revised.		14

Responsible Care Audit

Our Responsible Care audit system is consisted of the RC pre-audit on the basis of checking documents and records and the RC audit in a comprehensive way by the director in charge of environment and safety, and auditors evaluate both the progress in RC activity plan and the efforts to spectrum of RC at each workplace. In addition, they also evaluate whether or not PDCA cycle on the security management system is surely implemented at the plants that are certified to carry out the self inspection and/or to operate the facilities continuously on the basis of the certification of high pressure gas and/or boilers and 1st class pressure vessels. The RC audit results are notified to the Environment and Safety Meeting and incorporated into our next year activity target.

RC auditing in 2006

Auditing period: From August to October in 2006

Auditee: 6 plants, 3 laboratories, and 4 internal companies and 1 corporate at Headquarters

Pre-auditing items

- Security management status regarding certification of high pressure gas (only at certified plants)
- Security management status regarding certification of boilers and 1st class pressure vessels (only at certified plants)
- Priority auditing subjects in 2006
- Standard checking list by JRCC

Auditing items

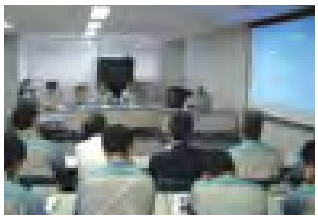
- Progress in RC activity plan and status of security management activity
- Performance date on environment and safety
- Results of internal RC audit
- Follow-up of pointed out subjects in previous year's auditing
- Response to the requirement to accident preservation and thorough compliance
- Other subjects related to environmental preservation and safety

Auditing results: Good point (13 cases)
Nonconformity (0 case)
Matters to be improved (10 cases)
Comment with advice (42 cases)

Follow-up of pointed out subjects in previous year's auditing

The auditors confirmed the appropriate countermeasures on pointed out subjects in previous year's auditing while pre-auditing and RC auditing.

RC pre-audit



RC audit

RC auditing system

RC audit program

Pre-auditing	
Auditee	Plants, Laboratories
Auditor	Expert team
Auditing items	Documents and records

Auditing	
Auditee	Plants, Laboratories Internal companies Purchasing & Logistics Division
Auditor	Expert team led by director in charge
Auditing items	Progress of activity targets, and RC compliance

Issuance of RC auditing report

Notify to Environment and Safety Meeting

Matters to be improved in common with all workplaces

We confirmed the matters to be improved in common with all workplaces by spreading out the auditing results of each workplace at the Environment and Safety Meeting.

Matters to be improved in common with all workplaces in 2006 RC audits	
To be improved 1	Countermeasure on accident/occupational injure should be reviewed not only on ostensible factor but also on background factor and taken preventive steps should be taken.
To be improved 2	Disaster prevention training has to include crisis management such as communication with outside.
To be improved 3	Education curriculums should be devised so as to be effective for the increase of employee's sensibility to risk, for example to determine of their comprehension.

Responsible Care Activities Targets in 2007

We have been working on the Responsible Care activities targets in 2007 which were determined at the Environment and Safety Meeting in December, 2006 toward the achievement of our Responsible Care mid-term targets from 2006 to 2010.

Occupational health and safety

Mid-term target

- To achieve Zero occupational injury

Targets in 2007

- For eliminating our human error
  - To activate our suggestion activities on Hiyari-Hatto (near miss) across the employees
  - To review the educational methods for improvement of employees' sensibility to risk
- To enhance the occupational safety and health risk assessment activity
- To make sure the risk reduction activity before starting a non-routine work

Process safety and disaster prevention

Mid-term target

- To achieve Zero accident

Targets in 2007

- To reinforce the safety management for facilities without authorized inspection under any law
- To enforce the management for any changing in process and verify the effectiveness of it
- To review the crisis management system in case of an accident

Environmental Preservation

Mid-term target

- To reduce an energy consumption rate below 0.9 in compare with fiscal 1990
- To reduce a GHG emission rate below 0.8 in compare with fiscal 1990
- To reduce an amount of PRTR chemicals emissions equal to 90% of fiscal 2004
- To reduce an amount of VOC emissions equal to 90% of fiscal 2004
- To achieve zero emission of wastes (Definition: To promote 3Rs and to reduce an amount of final disposal as landfill below 0.3% of generated wastes)

Targets in 2007

- To promote a countermeasure for energy saving with a focus on major plants and to reduce an energy consumption rate more than 1% in compare with the previous year
- To promote energy saving and a fuel conversion to natural gas and to reduce a GHG gas more than 1% in compare with the previous year
- To reduce an amount of PRTR chemicals emissions more than 2% in compare with fiscal 2004
- To reduce an amount of VOC emissions more than 2% in compare with fiscal 2004
- To approach our zero emission of wastes through setting the target values on the ratio of zero emission or the reduction amount of final disposal at every workplace
- To promote our green procurement (office and stationery supplies)

Chemicals and products safety

Mid-term target

- To provide the latest MSDS (including the harmonization with GHS)
- To implement safety assessment of products
  - Participation in the Japan Challenge Program
  - Harmonization with REACH regulation
  - Pertinent assessment of new substances
- To promote the development environment-friendly products and energy saving technologies

Targets in 2007

- To review and provide the MSDS based on latest safety information
- To harmonize with amendment of Industrial Safety and Health Law (GHS)
- To research and verify a substance contained in our product
- To implement the Japan Challenge Program
- To plan the appropriate countermeasure to REACH
- To review our flow of newly-developed product safety assessment
- To promote the development environment-friendly products and energy saving technologies

Distribution safety

Mid-term target

- To introduce the globally-harmonized system (GHS)
- To ensure the safety in our logistics
- To reduce the environmental loads in our logistics

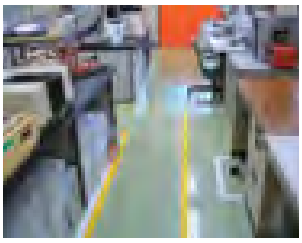
Targets in 2007

- To verify the GHS labeling
- To enhance our auditing for delivery consignment companies
- To analyze a trouble in logistics and promote a preventative measure
- To analyze an amount of CO_2 emission in our distribution and plan reduction scheme of it
- To promote our modal shift

Approach to Occupational Health and Safety

Occupational safety activities

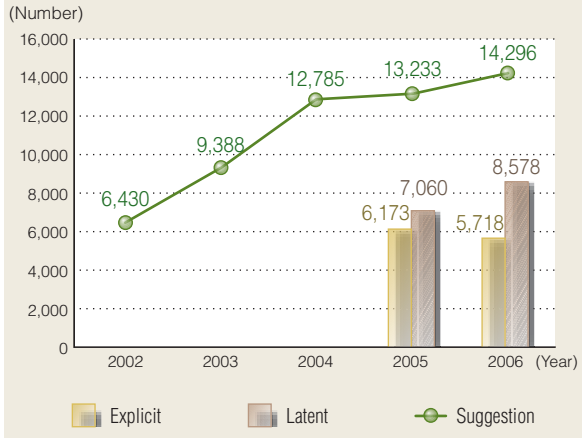
MGC has actively worked for RC activities under our original goal of Zero accident, Zero occupational injury and Environmental Preservation as our environmental and safety targets.
In order to accomplish the original goal, every workplace has promoted various occupational safety activities through the daily safety activity such as Hiyari-Hatto (near miss) suggestion activity, 5S-activity and risk reduction activity, education and training, and collection of safety slogans.
In the safety week across the country in every July, the safety message from the president is disseminated to all employees on our intranet-website and video, and the employees furthermore confirm the importance to ensure the safety through the lecture of the top management of each workplace at safety meeting.



5S-activity situation
(The Kashima plant)

Pointing and vocalizing training
in tool box meeting (The Niigata plant)

Transition of Hiyari-Hatto suggestion

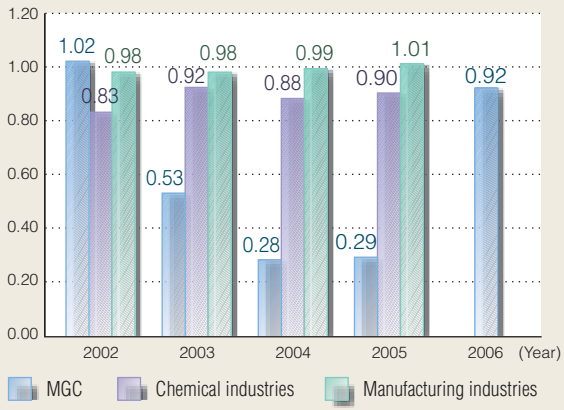


In our Hiyari-Hatto activity, numbers of suggestion on Hiyari-Hatto consisting of explicit one and latent one have been positioned as the indicator for both improvement of sensibility and activation level of RC activities, and we have promoted the suggestion on Hiyari-Hatto.
The numbers of suggestion on Hiyari-Hatto are increasing year by year, particularly the ratio of latent Hiyari-Hatto is increasing.
The operational visualization, such as the release of the suggestion contents on workplace website, has been proceeded.
MGC is hereafter going to enhance furthermore the participation rate of employee on this activity.

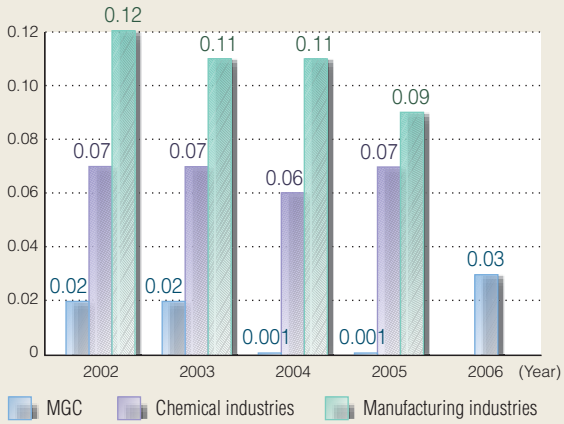
Results of safety activities

Unfortunately three lost time injuries occurred in 2006, though our record of lost time injury had kept decreasing until then.
In the results, our frequency rate on occupational injury, which is the number of employees with lost time injuries per one million working hours, was 0.92 and our severity rate, which is lost days per one thousand working hours, was 0.03 (unspecified). It became our worst record in a several years.
Most our occupational injuries were caused by lack of sensibility for latent risk in a work.
We should improve our sensibility through the above Hiyari-Hatto suggestion activity and risk reduction activity before stating a non-routine work.

Frequency rates

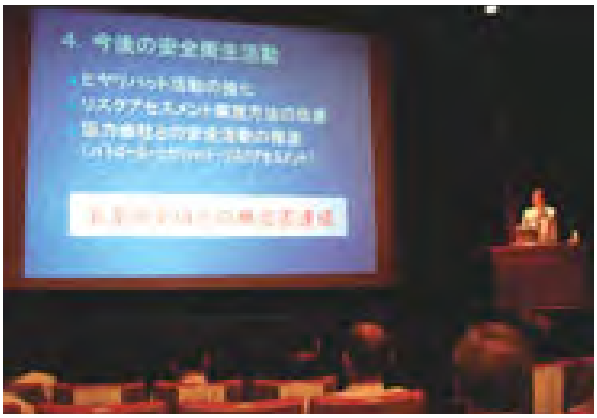


Severity rates



Presentation of safety activity

Tokyo Techno-Center received the performance award of Director-general of Tokyo Labor Department at the Tokyo-industrial Health and Safety Convention in 2005 for continuous record of "4.6 million hrs" of Zero occupational injury and introduction of Occupational Health and Safety Management System, and the Center made a presentation of their safety activity at the same convention held in July, 2006.



Presentation at Tokyo-industrial health and safety convention

Occupational safety risk assessment

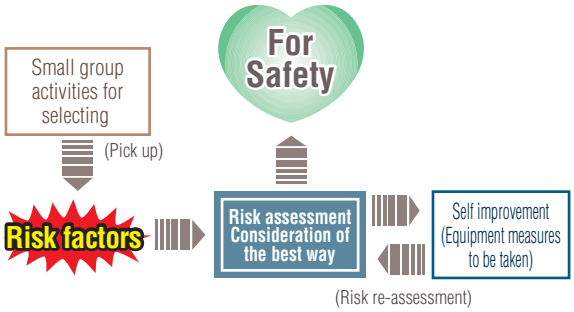
Aiming for raising our level of occupational safety and health, our occupational safety risk assessment was introduced in last year and we are working on a full-scale activity in this year.

The occupational safety risk assessment is used for event analysis in Hiyari-Hatto suggestion, and the occupational safety risk assessment meeting in a sector is held regularly for picking up and improvement of the unsafe point in worksite.

Several workplaces hold the meeting to make a presentation of the assessment results for supporting the activation of our occupational safety risk assessment activity.

Presentation of Risk assessment for occupational safety
(The Kashima Plant)

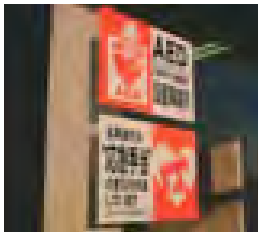
Our occupational safety risk assessment



Effort to emergency aid

Automated external defibrillators (AEDs) can be recently found at station, public facility and other places and they are used in case of cardiac arrest in recent days. In MGC, 5 workplaces have AEDs and staffs are trained to use it.

In addition, for effort to emergency aid, manual resuscitator has been equipped and employee has training for first aid at each workplace.



AED information panel
at the Yokkaichi plant

Comment by Representative at plant

The Kashima Plant
Environment and safety / quality assurance department manager
Kenji Tanabe

The Kashima plant has continuous record of "12 years" of Zero occupational injury, however we have HIYARI (near miss) situations during this period.

The reason why they did not become serious is, I believe as follows; we had taken our patient safety activities such as monthly safety meeting, Hiyari-Hatto suggestion activity and occupational safety risk assessment review meeting.

For continuous Zero accident and Zero occupational injury, we will make efforts to promote secure safety activities together.

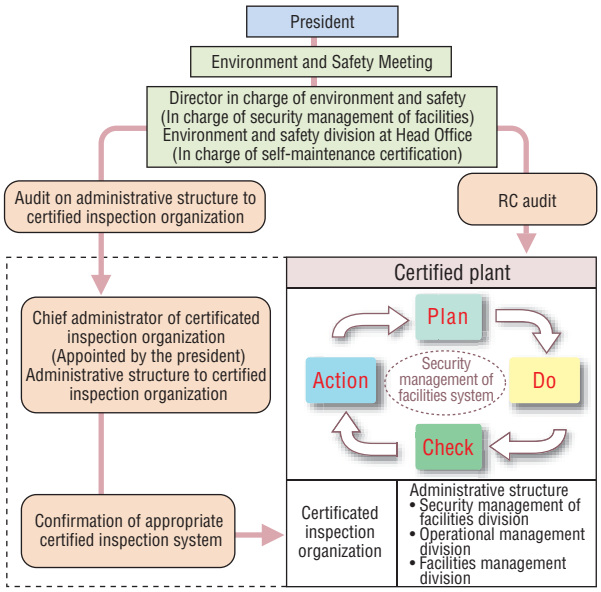
Approach to Process Safety and Disaster Prevention

MGC has determined the securing of safety as a top priority issue and we proactively address the employee to secure safety to achieve Zero accident and Zero occupational injury, through the promotion of self-maintenance based on RC activities. Furthermore, we have constructed our disaster prevention system in case of an accident.

Process safety management

As part of RC auditing in each workplace every year, we implement the auditing of process safety. Especially the certified plants, which have acquired approved qualification on high pressure gas production facility, have the auditing for their inspection organization by Director in charge of environment and safety, based on the Certified Process Safety Management Regulation on High Pressure Gas. In this auditing, each inspection organization of the certified plants was confirmed by third party whether its process safety management is correct or not according to the standard specified by Minister of Economy, Trade and Industry.

High pressure gas process safety management system



The Niigata and Mizushima plants had the extraordinary environment and process safety auditing based on the Integrated Safety Management Rules, because both plants caused several accidents and/or occupational injuries continuously in 2006.

Promotion of self-security management

The Niigata plant, which has acquired approved qualification on high pressure gas production facility, has developed and revised its own process safety management system according to the High Pressure Safety Act revised last year and related rules.

And also the Mizushima plant has been developing the similar process safety management system.

The Yokkaichi plant, which has acquired approved qualification on continuous operation of boilers and 1st class pressure vessel, has started working for license renewal and the facility staff in the Kashima plant tried hard to gain knowledge on aged deterioration provision and etc. by workshop on high pressure gas facility for our promoting self-security management.

The security of safety activities for facilities

In order to prevent an accident and an occupational injury, it is important to ensure process safety and facility's good condition and to continue stable operation.

The each plant is actively making efforts on process safety management activity proactively, for example, it has put safety assessment in execution according to the detailed regulation for prior safety evaluation for the plan of new or additional plants and/or related original rules of each site.

MGC is promoting the operational visualization of facilities, exemplified by the improvement of a piping rack labeling.

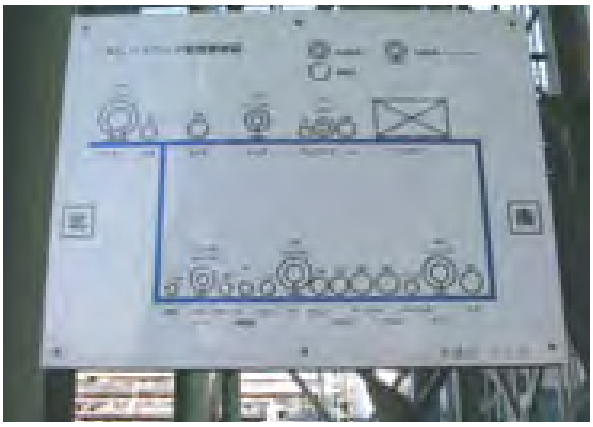
Main activities security of safety for facilities in each plant

Niigata plant	Reviewing the point to be checked and cycle at facilities To pick up the weak point of each section by checklist and take the countermeasure for it Thoroughness of operational visualization
Mizushima plant	Development of the site original process safety management rule on high pressure gas To review the earthquake countermeasures at toxic gas facilities
Yokkaichi plant	To evaluate safety assessment based on rules To pick up the risk at facilities based on rules
Kashima plant	To revise the prior safety evaluation regulation for the plan of new or additional plants and educate employees according it To introduce the TPM activity
Yamakita plant	To implement the prior safety evaluation for the plan of new or additional plants To carry out the safety patrol before new facility's operation

Comment by Representative at plant

The Mizushima plant
Environment and Safety Department Manager
Mitsuru Wakuta

I believe it is indispensable to take measures for environmental prevention and disaster prevention, and behave properly and minimize accident/disaster whenever they occur.
And also, disaster prevention education is necessary for employees in charge of maintenance.
Commercial manufacturing at the Mizushima plant has been continued for over 40 years.
For continuous safety and security of sustainable business, we have picked up and minimized any latent risk and made efforts for appropriate management at aged facilities and classified education of employees.



"Operational visualization" on piping rack
(The Mizushima plant)

Educational and supporting activity

It is very important for safe and reliable operations to hand down technology and skill. Therefore, each plant has handed down through training programs the technology and skill by using the skill table and the one point lesson sheet, and besides, implemented the acquisition fundamental technology and skill for maintenance, instrumentation and operation. The affiliate companies have attended above-mentioned training programs for upgrading their operation technology, skill and safety.
In addition, we have improved our sensibility and understanding for safety through the simulation and renewed recognition of troubles happening in the past.

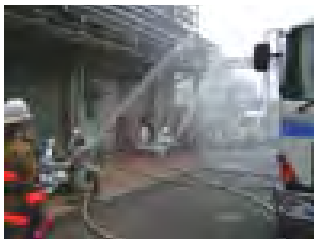
Education at the value productive maintenance center
(The Yokkaichi plant)

Training at the in-house maintenance school
(The Mizushima plant)

Emergency Management

We have constructed the self-disaster prevention system at each workplace in case of an accident. Each workplace has set up their disaster prevention activity rule which has defined emergency system and activity. Furthermore, the Niigata, Mizushima, Yokkaichi and Kashima plant, to which the Petroleum Complex Accident Prevention Act has been applied, have entered into the regional joint accident prevention agreement with neighboring companies and constructed a mutual support system with them in case of an emergency. Each workplace develops its annual disaster prevention plan and implements the periodical training for disaster prevention. Each plant has equipped with materials and equipment for emergency in case of an accident in transportation of our products. We have constructed our wide-area support system for emergency measure by getting in touch with each other plant, whenever an accident happens. As the result of equipping with materials and equipment for emergency, we help the cooperating with the fire station and police station on the accident happening at the neighbor of plant in transportation of other company's products, if required.

Emergency call procedure on phone
(The Niigata plant)



Joint firefighting training with
fire station
(The Tokyo techno-center)

Firefighting training
(The Niigata laboratory)

Integrated disaster prevention training
(The Kashima plant)

Disaster prevention training
(The Hiratsuka laboratory)

Assistance the leakage accident
(The Yamakita plant)

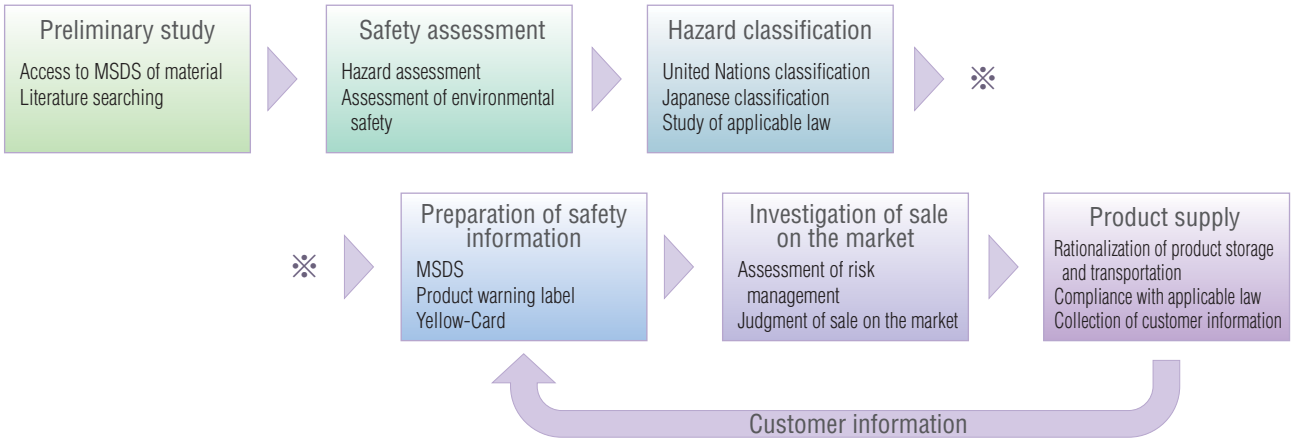
Approach to Chemicals and Products Safety Management

As a chemicals supplier's responsibility, we clarify the characteristics, safeness and handling method of our products and carry out various kinds of activities to keep safety, health and environment of every user of our products.

We have managed our system to secure the product safety under our enacted products safety assessment standard. This system is the one for the examination of products whether they are satisfied with the standard for their commercialization, through the implementation of assessment, classification and evaluation of the hazard and risk in each development stage from the preliminary study of raw materials to the disposal of products via the sale on the market.

Additionally in this system, recommended appropriate handling method of products is decided on the basis of hazard information and it is reflected in Material Safety Data Sheet (MSDS), warning label and Yellow-Card (emergency information card during distribution) which are furnished to customers of products.

Flowchart of safety assessment for chemicals and products



Safety Assessment of Chemicals

MGC obtains any necessary safety information from not only literature searching but also testing in our research laboratories and utilizes it for the evaluation of chemicals safety.
Especially, the Niigata research laboratory has the certified biodegradability and mutagenic (Ames) tests facilities in accordance with GLP*.
We have conducted several safety tests for new chemicals, especially biodegradability and mutagenic (Ames) tests specified by laws and regulations at our GLP certified test facilities in the Niigata Research Laboratory.

In addition, this Laboratory owns the test facilities for acute oral toxicity, primary skin irritation and pathogenicity, and theses safety tests on 52 chemicals were conducted at this laboratory in 2006.

*Good Laboratory Practice (GLP) is a quality system concerned with the organizational process and the conditions under which non-clinical health and environmental safety studies are planned, performed, monitored, recorded, archived and reported.

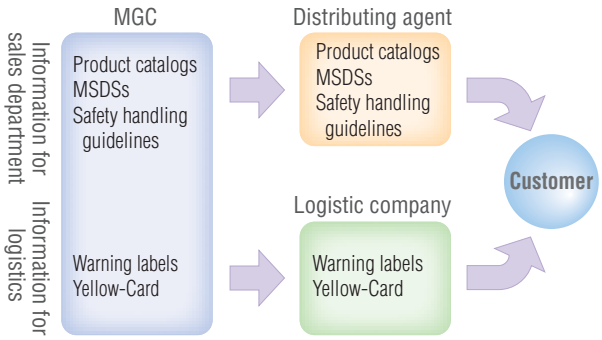
The Niigata Research Laboratory with GLP facilities

Safety testing (Ames)

Safety Information Service

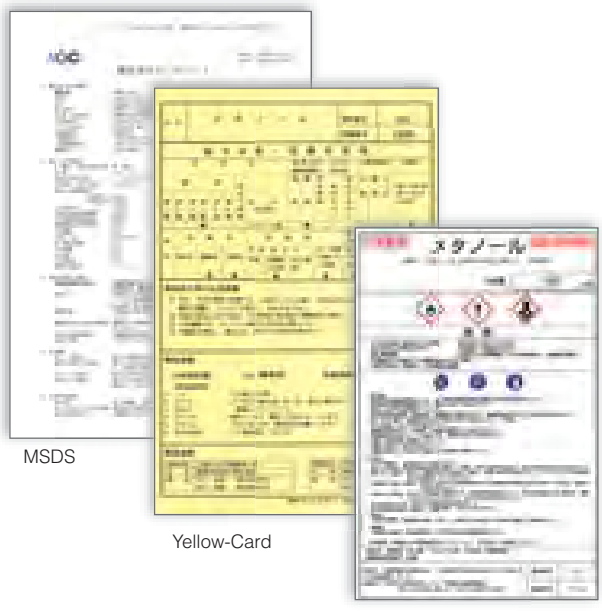
MGC actively collects the safety information relating to our products. Based on the collected information, we prepare the product catalogs, MSDSs, safety handling guidelines, Yellow-Cards and warning labels in accordance with GHS.

Flowchart of the safety information service



Container and packaging label

We have secured the product safety by labeling with hazardous information, risk aversion pictogram and handling caution on the container or package of hazardous product. In December, 2006, the Industrial Safety and Health Law was amended and it requires us to make the classification and labeling of chemicals on the basis of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Pursuant to the amended law, we changed the classification and label of listed products by the law so as to harmonize with GHS specifications, although the quality of our products does not change.



MSDS

Yellow-Card

Label harmonized with GHS

Study and research of chemical safety

Japan Challenge Program

The Japan Challenge Program is the combined governmental and industrial program for both gathering of existing chemical safety information with increasing speed and disseminating of that information to Japanese people.
MGC is participating into 4 substances whose production volume is large. By this time, the gathering plan of safety information for each substance has been made and the safety test has been launched.

Participation substances in the Japan Challenge Program
1,3-cyclohexanedimethanamine (submit to OECD)
3,4-dimethylbenzaldehyde
Cyclohexyl methacrylate (in consortium)
Benzene-1,2:4,5-tetracarboxylic dianhydride (in consortium)

OECD HPV Program

The OECD HPV program is the safety evaluation program concerning the chemical substances whose annual production volume in one country is not less than 1,000 tons (high production volume).
MGC has been participating in this program through the Japan Chemical Industry Association (JCIA) and/or International Council of Chemical Association (ICCA) since 1999.
Among 17 substances in which we are taking part, we have already evaluated the 13 substances (including of our leading 3 substances) through the Organization for Economic Co-operation and Development (OECD).
Additionally MGC is supporting the Long-Range Research Initiative (LRI) concerning the impact of chemicals on health and the environment by ICCA, via JCIA.

Overseas regulation REACH

The new chemical control regulation in EU, which is known as REACH, will enter into force in June 2007. MGC is participating in the Japan Chemical Council in Europe and Japan for REACH and making an effort to harmonize with international regulatory trend.

Environment-friendly Products and Research and Development

We are actively making efforts to develop products and technologies by considering energy and resource saving, global warming prevention, low load to environment and etc.

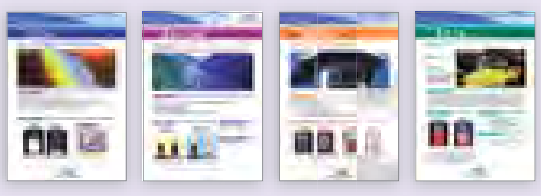
AGELESS OMAC® oxygen absorber film

The oxygen absorber AGELESS® has been extensively used to prevent foods from oxidization and degradation, mold and preserve their freshness. The conventional AGELESS® is not able to use for liquid foods or microwave meal, because of the packaging of iron powder. Considering the downsize of conventional AGELESS®, MGC developed and put on the market the oxygen absorber film AGELESS OMAC® in which oxygen absorbing and film production technology are combined. Now, this new oxygen absorber film AGELESS OMAC® is used as not only containers for various retort foods, but also alternative material for can and it has been receiving high reputation for its preservation ability of food quality, contribution to the decrease of packaging volume and etc.

Oxygen absorber film AGELESS OMAC®
is used as alternative material for can

Downsized AGELESS®

MGC made use of the various technologies to develop the downsized AGELESS®. As a result of employment of new AGELESS®, household waste is reduced by 20% compared with the conventional AGELESS® and it contributes to the low load to environment.

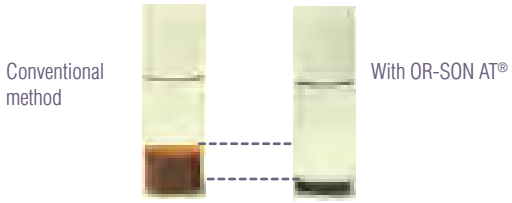


Diafresh® series leaflet

Waste water treatment agents Diafresh® series

OR-SON AT®

So far, the conventional Fenton method, which uses ferrous ion and hydrogen peroxide, has been used for treatment of persistent substances in waste water. However, this method has not spread extensively due to both a large amount of sludge formation and hydrogen peroxide retention after treatment. For solving this problem, MGC developed the originally improved catalyst for Fenton method Diafresh® OR-SON AT® by using our acquired various technologies. The Fenton method with our catalyst has the following benefits, both reducing of used ferrous ion and amount of sludge formation and hydrogen peroxide non-retention after treatment. In addition, organic alkalis and organic chloride compounds, which can not be decomposed by the conventional Fenton method, have come to be degraded through this new method. Now, this new catalyst agent has been widely used for the treatment of waste water containing amine from manufacturing process of semiconductors, liquid crystals and printed circuit boards and other persistent substances in waste water.



Comparing conventional method with new method
(with OR-SON AT®)

F-SON®

The F-SON® is the agent for separation and treatment of fluorine compounds in waste water. It is able to further reduce the fluorine content in waste water by additionally adding F-SON® to the treatment facilities using calcium.

NEOSOL®

The NEOSOL® is the 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®

The NEOPOCK® is the chemical agent for effective aggregation and separation of water-based paint, water soluble polymer.

Approach to development and spread of fuel DME

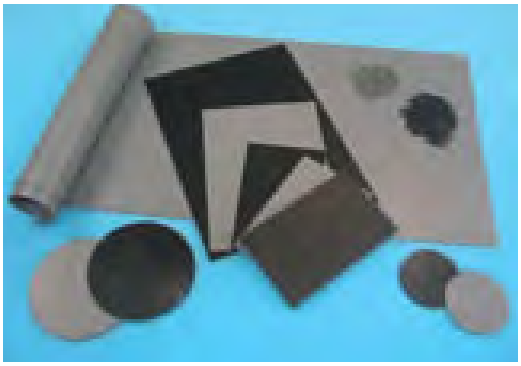
MGC and 8 companies will construct the new production plant with annual production capacity of 80,000 tons dimethyl ether (DME) at the Niigata plant for development and spread of next-generation clean fuel DME which does not generate soot and sulfur oxides during combustion.
And we are participating in the DME fuel auto-truck test run on public roads which is implemented by the National Traffic Safety and Environment Laboratory.
The long-distance test run of DME fuel large-sized auto-truck (20 tons) has been started between Yokohama and Niigata under the official authorization to submit a commercial viability and spread research plan.
The MGC-owned fuel station for DME charge supplies to this auto-truck at the Niigata city.

Thus, we are promoting the development and spread of clean energy.

DME fuel large-sized auto-truck (20 tons)

Development of high performance dumping material NEOFEDO®

The noise such as motor sound from vacuum cleaner, refrigerator and washing machine became obvious in residence as those feeling uneasy, because the outward noise is prevented from coming into residence by improvement of its airtightness. The dumping technology, which has effect of amplitude control of vibration, was required for the prevention of these noises. MGC developed the higher performance dumping material than the conventional one, through our original polymerization technology and inorganic filler technology. Now, this material is adopted on the latest vacuum cleaner.
As a result, our material has gained the high reputation that it is useful for not only noise reduction but also improvement of sound quality.
We are also striving to develop its application technology to the fields to which conventional materials could not be applied.



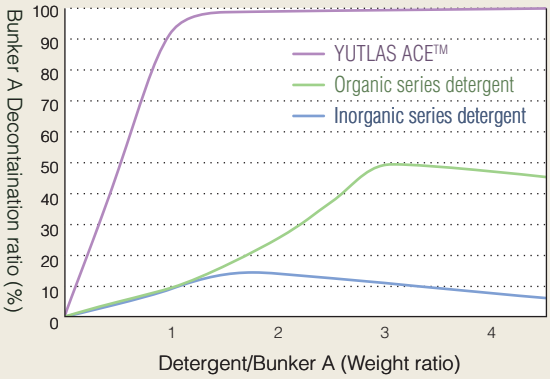
High performance dumping material NEOFEDO®

Development detergent YUTLAS ACE™ for oil pollution

The YUTLAS ACE™ developed by MGC is made from natural products and is the new and different type of detergent for oil pollution from the ordinary one. The new type detergent has superior adsorbability to the conventional ones, which shows inferior oil adsorbability decline in the case of contaminated water and oil. exist as the mixture.
In addition, the YUTLAS ACE™ promotes the oil pollution biodegradation since it becomes nutritive substance itself for microorganisms degrading oil. And the YUTLAS ACE™ is expected to be new detergent for soil clean-up and emulsified oil.

The oil pollution detergent YUTLAS ACE™

Decontamination ratio (oil adsorbability)



Environmental Load in Our Business Activities

The overview of our environmental load status in fiscal 2005 is shown below.
MGC makes efforts to ensure the efficient use of inputted resources and materials as well as the reduction of emission and waste.

INPUT

Energy consumption

(as crude oil)
559,000 kl

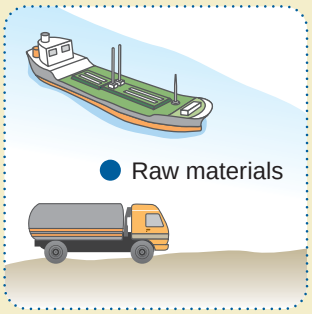
Total counting of consumed fuel and purchased steam and electric power

Water consumption

40,284 km³

Total counting of consumed drinking and industrial water

Raw materials



MGC business activities

8 production sites

OUTPUT

Emission to Atmosphere

CO_2 emission	1,587	k tons-CO_2
GHG 5 gases emission	7	k tons-CO_2
SOx emission	410	tons
NOx emission	906	tons
Soot and dust emissions	42	tons
Emission of PRTR listed chemicals	316	tons

Release to water area

Drainage volume	34,572	km³
COD emission	266	tons
Total nitrogen emission	407	tons
Total phosphorus emission	73	tons
Releases of PRTR listed chemicals	30	tons

Release to soil

0 ton

Generation of waste

Transfer to off-site	11,042	tons
Final disposal waste for landfill	516	tons

◆ Definition terms

CO_2 emission: Total emission volumes of carbon dioxide (CO_2) in our business activities
GHG 5 gases emission: Total emission volumes of methane, dinitrogen monoxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride gas in our business activities converted in terms of CO_2
SOx emission: Total emission volumes of SOx contained in exhaust gas from our utility facilities
NOx emission: Total emission volumes of NOx contained in exhaust gas from our utility facilities soot and dust emissions: Total emission volumes of soot and others contained in exhaust gas from our utility facilities
Emissions of PRTR listed chemicals to atmosphere: Emission volumes of the listed 45 chemicals to the air
Drainage volume: Volumes released to the public water area after treatment of drainage from our business activities
COD emission: Volumes obtained with multiplying our drainage volumes by COD concentration in our drainage
Total nitrogen emission: Volumes obtained with multiplying volumes of our drainage by nitrogen concentration in our drainage
Total phosphorus emission: Volumes obtained with multiplying volumes of our drainage by phosphorus concentration in our drainage
Drainage of PRTR listed chemicals to water area: Drainage volumes of the listed 45 chemicals to the public water area
Transfer to off-site: Volume of waste transferred to off-site for external treatmentfinal disposal waste for landfill: Amount of final disposal for landfill after off-site treatment
Final disposal waste for landfill: Amount of final disposal for landfill after off-site treatment

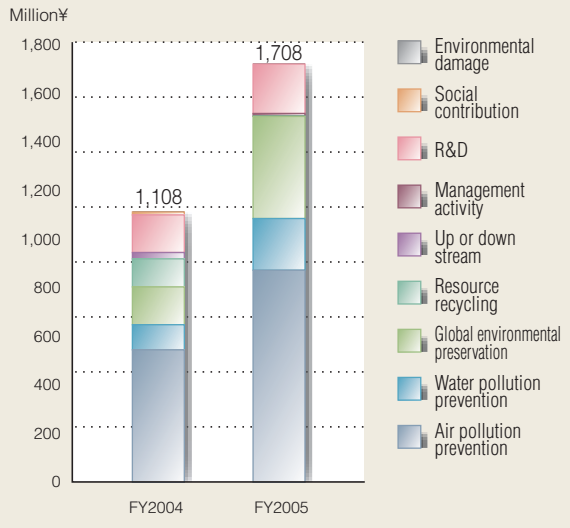
Environmental accounting

MGC has been introducing and counting the environmental accounting along the guideline of the Ministry of the Environment since fiscal 2002. It is intended to be of help to the MGC's efficient environmental preservation activities and to keep clearness of our approaches by disclosing it to the public.

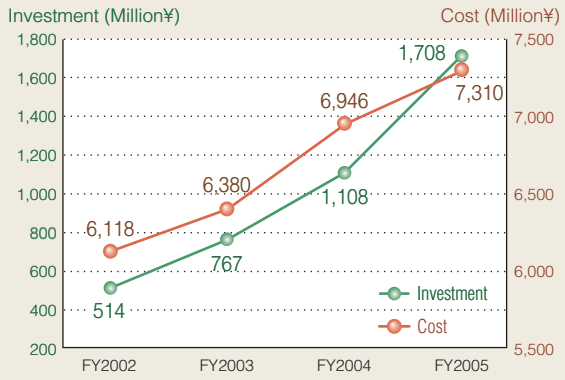
Environmental preservation cost

Amount of investment With the reinforcement of production capacity at some production facilities in fiscal 2005, the pollution prevention cost increased owing to the capital investment to control any prospective increasing of environmental load to the atmosphere and water.
Furthermore, MGC promotes the approach to energy saving and reduction of Greenhouse gas emission to prevent the global warming. At the same time, the amount of investment relating to the global environmental preservation cost had also increased owing to the capital investment for effective use of energy.

Environmental investment



Transition of investment and cost



Amount of cost For maintenance and improvement of environmental preservation, the pollution prevention cost and the global environmental preservation cost increased in fiscal 2005. As a result, the total amount of cost was 7310 million yen.
The sum of the pollution prevention cost and the global environmental preservation one came to approximately 56% of total amount of cost.

Economic benefit (Actual benefit) The counted actual economic benefit is shown in the following table.

The economic benefit with environmental preservation measures

Actual benefit	Amount (Unit: million ¥)
The effect by energy saving	172
The gain on sale of valuable waste	60.5

Implementation in conformity with the Environmental Accounting Guidelines 2005
Targeted period: From April 1, 2005 to March 31, 2006
Scope: Unconsolidated basis
Counting methods : Investment: The amounts, associated with environmental preservation, are prorated from its ratio in capital spending during this fiscal year.
Cost: The amounts are associated specifically with environmental preservation, and the depreciation of machinery and equipment is included.
Economic benefit: The amount of economic benefit is summed only in the items in which it can be clearly calculated as the amount of money

The categorized investments and costs in accordance with environmental preservation category in FY 2005

Unit: Amount: million ¥ Ratio: %		Main items for activity	FY2005 investment Amount	investment Ratio	cost Amount	cost Ratio
Onsite cost	Pollution prevention cost	Air pollution prevention Invest.: Incinerator Cost: Off gas scrubber	866	50.7	819	11.2
		Water pollution prevention Invest.: Facility making drainage harmless, and etc. Cost: Wastewater treatment facility maintenance	211	12.4	1,625	22.2
		Noise prevention, etc.	0	0.0	4	0.1
	Global environmental preservation cost	Warming preservation, Energy saving, etc.	417	24.4	1,603	21.9
	Resource recycling cost	Waste management, Recycle treatment	1	0.1	856	11.7
	Up or down stream cost	Green procurement, Container recycling, etc.	0	0.0	58	0.8
	Management activity cost	Compliance with ISO 14001, Environmental loads observation	11	0.6	545	7.5
	R & D cost	Developing of environment-friendly products and energy saving technology	202	11.8	1,644	22.5
	Social contribution cost	Site greening, Supporting local community	0	0.0	55	0.7
	Environmental damage cost	Compensation for environmental preservation	0	0.0	101	1.4
	Total		1,708	100.0	7,310	100.0

Approach to global warming preservation

On Mid-term targets

MGC is working on the following Mid-term targets against global warming issue.

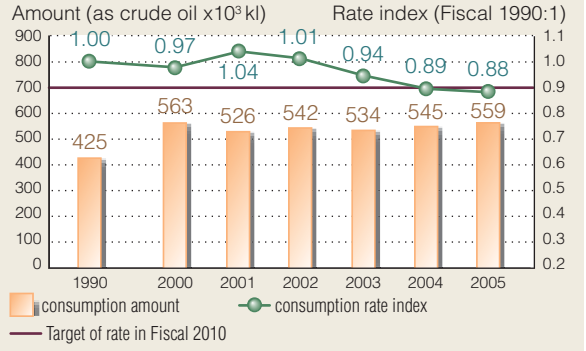
Final target year	: 2010
Target for improvement of energy consumption rate	: To reduce below 0.9 compared with 1990
Target for improvement of Greenhouse gas emission rate	: To reduce below 0.8 compared with 1990

Energy saving activity

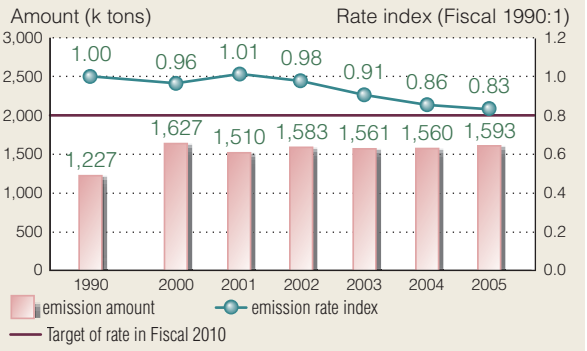
The amount of the energy consumption in fiscal 2005 on the basis of crude oil was 559,000 kl in manufacturing sections, and it had increased by 2.6% compared with the previous year, because of the increase of production. However, the energy consumption rate was improved by 1.1% compared with the previous year and it was 0.88 compared with 1990, as a result, the Mid-term target has been already achieved. Through the energy saving measures in 2005 is shown below, the effect of energy saving was 6,000 kl converted in terms of crude oil and they contributed to the improvement of energy consumption rate;

- Reduction of steam consumption by heat recovery at the xylene separation facility,
- Reduction of steam by changing concentration of hydrogen peroxide in process at its production facility,
- Reduction of electric power by optimization of operating conditions such as pump, and
- Effective utilization of low pressure by using thermo-compressor.

Transition of energy consumption amount and consumption rate



Transition of Greenhouse gas (GHG) emission amount and emission rate

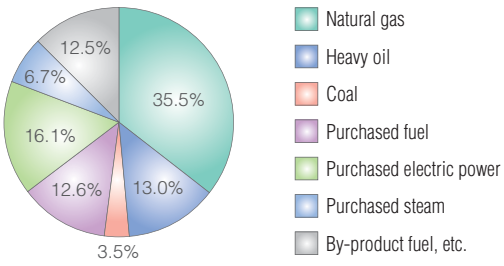


In this report, the data were modified as far back as past by the amended applicable law. For example, the CO_2 emission coefficient of purchased electric power has been changed from 0.378 to 0.555 kg/kWh.

Countermeasures for reduction of Greenhouse Gas (GHG) emission

The amount of Greenhouse Gas (GHG) emission in fiscal 2005 was 1,593 k tons in manufacturing sections and this means 2.1% increase compared with the previous year.
In the breakdown, the amount of CO_2 originated from energy generation was 1,327 k tons, 83% of the whole, the one originated from production process, that is, from non-energy generation was 260 k tons, 16%, and the amount of five kinds of greenhouse gas emission was totally 7 k tons, 0.4%.
The GHG emission rate had been improved by 2.5% compared with the previous year and it was 0.83 compared with 1990.
This improvement was resulted from not only decreasing effect of CO_2 emission by energy saving but also conversion of fuel from coal to city gas at the Yokkaichi plant as described later.

Component ratio of energy sources (fiscal 2005)



Details of GHG emission amount (converted to k tons-CO_2)

CO_2 (energy origin)	1,327
CO_2 (non-energy origin)	260
Methane	2.1
Dinitrogen oxide	0.3
Hydrofluorocarbons	4.3
Perhydrofluorocarbons	0.0
Sulfur hexafluoride	0.0
Total	1,593

Approach to energy saving in distribution

The approaches to energy saving in distribution are as follows; we are implementing not only the transportation with suitable sized vehicle but also improvement in loading ratio for energy saving efforts in our distribution in conformity with the introduced MGC's entire distribution system for effective distribution on the basis of unitary management extending over whole company. Furthermore, we have been promoting the enlargement of transportation lot by using a larger tanker lorry as well as modal shift from the tanker lorry to rail way container service for the transportation of the hydrogen peroxide, dimethylacetamide and other products.

The exclusive ISO container for dimethylacetamide
(The transportation by trailer truck to rail way container service)

The topics on efforts

Management of data of energy consumption and GHG emission

Both the report of energy consumption and the development of energy saving target for the owner transporting cargo on a extensive scale and the report of Greenhouse Gas emission for manufacturing sector have been mandated by enforcement in April, 2006 of the amended Law concerning the rational use of energy and the amended Law concerning the promotion of the measures to cope with global warming. MGC has reviewed its calculating method of the data of energy consumption and GHG emission for manufacturing section under the amending of both laws. In addition, MGC has changed the calculating unit from a workplace to a product.

The management of whole company's data in every products makes the following possible;

- improvement of unit consumption, factor analysis of degradation, and
- comparison of unit consumption of the same product among plant.

As a result, we may utilize these for the finding of problem and countermeasure of energy saving.

Meanwhile, MGC has developed the calculating system to find the energy consumption and CO_2 emission for periodical report of energy consumption on distribution section, through taking the data of transportation load, transportation distance and transportation mode from the MGC's entire distribution system under operation. After this, we will plan the energy saving target on the basis of the quantitative data from this calculating system, and promote the further energy saving and reduction of GHG emission.

Conversion to the natural gas

The natural gas is known as clean fuel which discharges CO_2 per calorific value than other fuel.

MGC has so far been using the natural gas at high rate for energy source, for instance, the Niigata plant has been using the natural gas for fuel from our gas well.

The natural gas consumption ratio was over 35% for conversion of co-generation fuel from coal to natural gas at the Yokkaichi plant, and this resulted in a significant improvement of greenhouse gas emission ratio.

Now, we will plan to convert fuel to the natural gas at the Mizushima and Yamakita plants, and as the result, the natural gas consumption ratio is expected to increase additionally.

Comment by Representative at plant

Environment and Safety Division
(GHG task force executive office) Hiroshi Machida

MGC has established the GHG task force for efforts toward countermeasures of GHG emission reduction.

The countermeasures of GHG emission reduction on manufacturing section are promoted, through the consideration of facilities, operation and process improvement by information exchange among plants and corporation of related section.

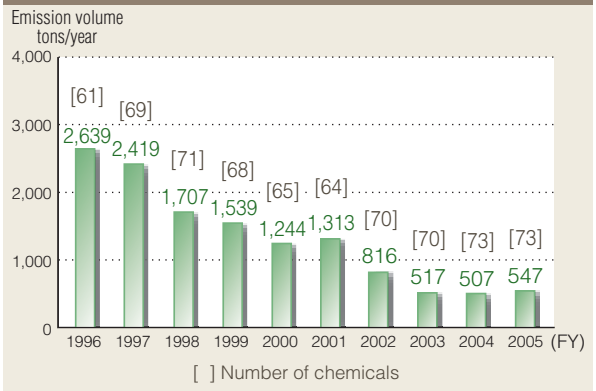
Distribution sections have so far been making efforts on the improvement of their effectiveness on the basis of the MGC's entire distribution system and I expect that their countermeasures are further promoted by the improvement of GHG emission data calculating system.

Approach to chemicals release reduction

PRTR chemicals in the JCIA's list

MGC has been voluntarily conducting the surveys and reduction of the PRTR chemicals release and transfer from our plants. (Those PRTR chemicals are listed by the Japan Chemical Industry Association (JCIA), and the PRTR Law-listed 354 chemicals are all included in the JCIA's list.)

The total emission volume of PRTR chemicals in the JCIA's list



In fiscal 2005, we had specified 73 chemicals as those to be assessed out of 481 chemicals including 480 ones specified by JCIA's list and our voluntarily picked up one, n-heptane.
The total emission amount was 547 tons, increased by approximately 8% compared with the previous year, and the total transfer amount was 914 tons, increased by approximately 8% compared with the previous year.
Because the RC mid-term target (2006-2010) is to reduce 10% emission of chemicals listed in PRTR compared with 2004, MGC has to work on the effective countermeasure for reduction and is promoting the effective countermeasures for their reduction in fiscal 2006.

Chemicals specified by the PRTR Law

In our assessment in fiscal 2005, forty five chemicals were those to be subjected to register out of 354 chemicals specified by the PRTR law.
As a result, the total emission amount was 346 tons and transfer amount was 351 tons.
The following table shows the details of chemicals registered by MGC on the basis of the PRTR Law but the chemicals, whose total emission amount was less than 0.1%, were exempted on the following table.

The registered chemicals on the basis of the PRTR Law (results in fiscal 2005)

(unit: tons/year)

No.	Chemicals	Emission amount			Emission	Transfer
		Air	Water	Soil	Total	Total
145	Dichloromethane	210.6	0.0	0.0	210.6	4.8
63	Xylenes	78.0	0.0	0.0	78.0	33.0
283	Hydrogen fluoride and it's water-soluble salt	0.8	23.0	0.0	23.8	0.7
42	Ethylene oxide	6.3	0.0	0.0	6.3	0.0
40	Ethylbenzene	6.3	0.0	0.0	6.3	0.0
227	Toluene	6.0	0.0	0.0	6.0	7.5
304	Boron and it's compounds	0.1	3.8	0.0	3.9	0.2
310	Formaldehyde	1.3	1.2	0.0	2.5	8.6
224	1,3,5-Trimethylbenzene	2.3	0.0	0.0	2.3	11.0
299	Benzene	2.2	0.0	0.0	2.2	0.0
253	Hydrazine	0.4	1.3	0.0	1.7	0.0
320	Methylmethacrylate	1.1	0.0	0.0	1.1	26.0
311	Manganese and it's compounds	0.0	0.5	0.0	0.5	0.4
312	Phthalic anhydride	0.5	0.0	0.0	0.5	5.2
313	Maleic anhydride	0.2	0.0	0.0	0.2	0.0
54	Epichlorohydrin	0.2	0.0	0.0	0.2	0.4
	Others (29 chemicals)	0.1	0.2	0.0	0.3	252.7
	Total (45 chemicals)	316.4	30.0	0.0	346.4	350.5

The registered amount (Emission and transfer data in fiscal years)

	2001	2002	2003	2004	2005
Number of Registration	46	42	44	45	45
Emission (tons/year)	617	507	299	285	346
Transfer (tons/year)	1,139	360	331	261	351

PRTR
PRTR is the acronym for Pollutant Release and Transfer Register. Reporting the emission and transfer of specific pollutant substances

Volatile Organic Compounds (VOC)

Under the amendment of the Air Pollution Control Law, the owner of facilities regulated by the law are obligated to register these facilities to the local government and to measure the emission concentration of VOC.
MGC properly harmonizes with the registry and the measurement based on the law and regulations.
Because the all VOC registered by MGC are specified in the JCIA's PRTR list, we voluntarily make efforts to reduce the emission amount.
The actual results of the VOC emission amount in fiscal 2005 were 484 tons.
In the responsible care mid-term target (2006-2010), MGC has set the target to reduce 10% VOC emission compared with fiscal 2004, and MGC is going to work on its reduction through the concrete measures in each plant.

Volatile Organic Compounds (VOC)

Volatile Organic Compounds means a generic term of organic compounds that become gas in the atmosphere because of their volatility.
The VOC is one of the causative agents for the suspended particles and the photochemical oxidants whose influence on someone's health is feared.
The concept of the best mix, which means the best mix and the best match of the regulations for the VOC emission facilities and the voluntary approach to non-regulated facilities, has been introduced in the amended Air Pollution Control Law in 2004, as a framework of the emission control measures of VOC.
MGC is concerned with 20 chemicals out of main 100 VOC listed by the Ministry of the Environment.

Registered VOC emission facilities (specified by the Law)

Classification	Requirement	Number
Storage facility	Capacity; over 2,000 kl (in existence)	6
Drying facility	Blower capability; over 3,000 m^3/h	5

The voluntary efforts

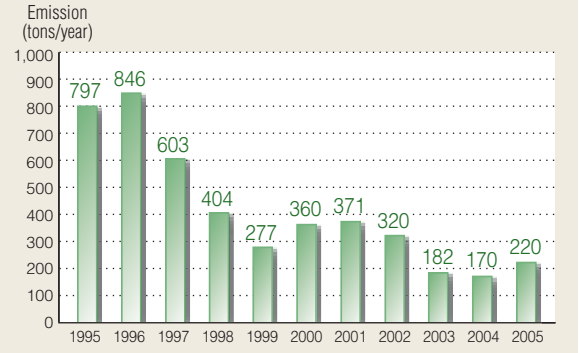
Our voluntary managed VOC in 2005

Dichloromethane, Methyl alcohol, Xylenes, Methyl ethyl ketone, n-Heptane and the other 15 chemicals
The total amount of emission: 484 tons

Harmful air pollutants

The JRCC members have been pushing forward to reduce the emission of 12 harmful pollutants on the basis of their voluntary reduction plan since 1996.
MGC has advanced the reduction of discharged amount of our managing 5 substances (Dichloromethane, Ethylene oxide, 1,3-butadiene, Benzene, Formaldehyde) by means of introduction of closed apparatus, incinerator of off-gas from facilities and reinforcement of their recycle or removal from off-gas and etc.
The MGC's total amount in 2005 was 220 tons and increased, compared with previous year; however we specified its cause and have already taken the countermeasures in 2006.

Transition of total emission amount of harmful air pollutants



The emission volumes of each harmful air pollutants	
Dichloromethane	211 tons/year
Ethylene oxide	6 tons/year
Benzene	2 tons/year
Formaldehyde	1 ton/year
1,3-butadiene	0 ton/year

The eliminator of harmful air pollutants in off-gas

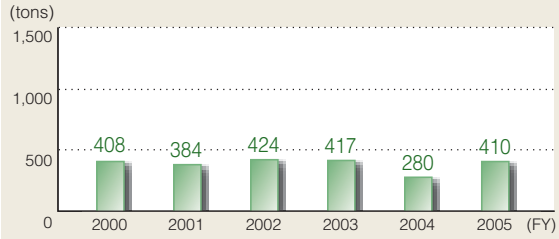
Approach to the Atmosphere, the Waters and the Soil

Prevention of Air Pollutions

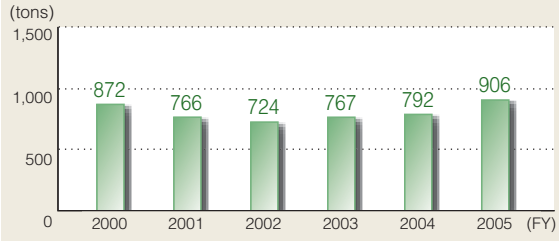
MGC has been working on the reduction of the air pollutants such as sulfur oxide (SOx), nitrogen oxide (NOx), soot and dust, etc. The countermeasures for the SOx reduction have been executed, for example, by setting up smoke gas desulphurization equipment of the boiler exhaust gas, and converting the fuel to low sulfur heavy oil or city gas (natural gas) and etc. MGC has kept the concentration and total amount of air pollutants to be sufficiently lower than the required value by laws and regulations, furthermore, we have controlled their values.
Each total emission amount of SOx and NOx has increased in fiscal 2005, compared with the previous year; however, the soot has desirably decreased by 29% because of the converting fuel for boiler and etc.

Off-gas monitoring

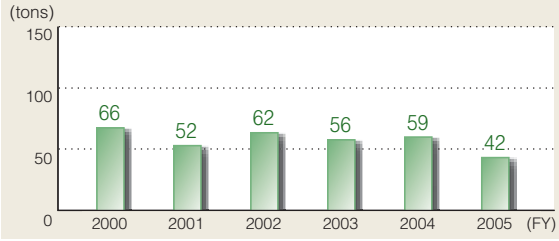
SOx emission



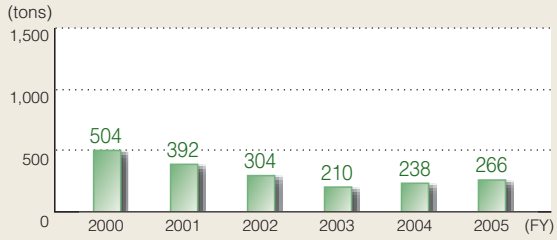
NOx emission



Soot and dust emission

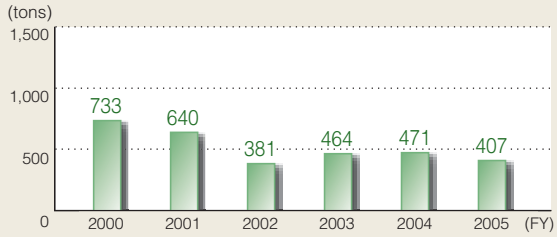


COD in effluent discharge

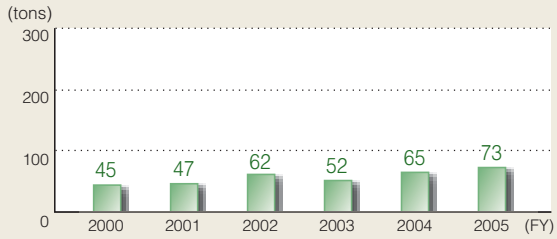


COD: Chemical Oxygen Demand; An index of water pollution which is amount of oxygen required to oxidize an organic compound in the water with an oxidizing agent.

Total nitrogen in effluent discharge



Total phosphorus in effluent discharge



Prevention of Water Pollutions

In order to prevent the pollution of rivers and sea, each plant controls the waste water treatment equipments of the neutralizing processing, the activated sludge processing, the cohesion precipitation processing, and etc., and then each plant monitors the drain water quality.
The emissions standards in concentration, total release and etc. are regulated by the law, the ordinance and/or the agreement, although they are different among local self-governing bodies. Each Plant has released the drain with properties under the restriction value to the public waters by waste water treatment. The COD value and total phosphorus in fiscal 2005 have increased compared with the previous year, because of the increase of production in specific products.

Soil and Groundwater Contamination Investigation

MGC investigates the used situation of harmful substances in production, and also of underground water around the plant. We continue to carry out self-management to prevent soil and groundwater from contamination and countermeasures for said prevention on the basis of the Soil Contamination Countermeasures Law and/or the ordinance of the local government.

Zero emission of waste

The zero emission in MGC has been defined as the decreasing the amount of final disposal to 0.3% or less of the amount of waste generation by the promotion of 3Rs. Under this definition, MGC is working on achievement of zero emission by 2010.
3Rs; Reduce, Reuse and Recycle

Results of waste reduction

The amount of waste generation (93 k tons reduction), the amount of waste to off-site (3 k tons reduction) and the final disposal for landfill (5 tons reduction) in fiscal 2005 were reduced, compared with previous year.
The reduction of waste generation is caused by both the fuel conversion of co-generation facility from coal to natural gas at the Yokkaichi plant and the shutdown of a production plant at the Niigata plant.
In addition, the amount of final disposal for landfill was reduced by the recycling of inorganic sludge and catalyst to be disposed.

Zero emission status of waste

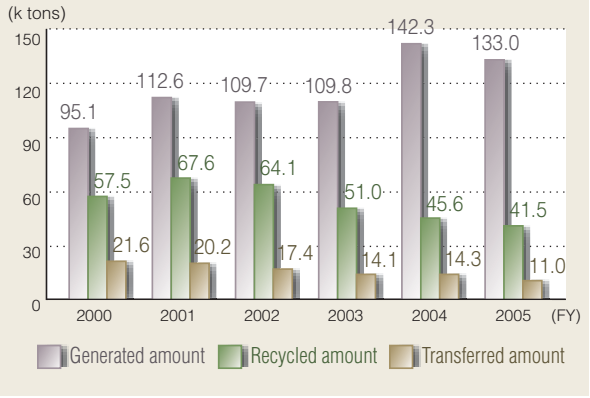
The each workplace makes an effort to achieve the zero emission of waste, through the classified collection for valuable resource and the finding of dealers for recycling.
Three out of the 8 workplaces achieved the zero emission of waste* in 2005.

* The zero emission of waste: below 0.3%

- The Mizushima plant (0.12%)
- The Yokkaichi plant (0.22%)
- The Naniwa factory (0.13%)

Transition of final disposal

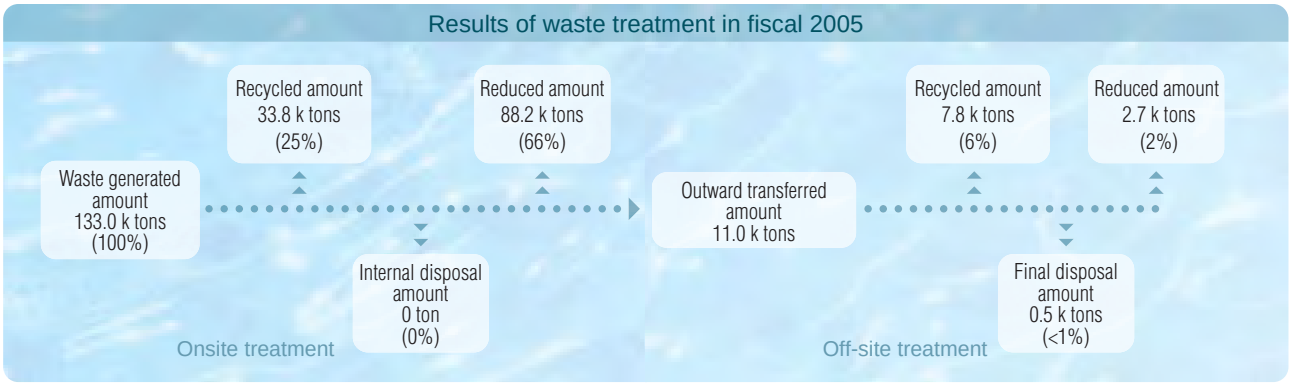
Transition of waste generation, recycling and transfer



Control of PCB (Polychlorinated biphenyl)

The used equipments (transformer, capacitor and stabilizer, etc.) that contain PCB are under the strict close control by us. MGC has already commissioned an appropriate decomposition treatment of PCB to the Japan Environmental Safety Corporation (JESCO) Co., Ltd.

Results of waste treatment in fiscal 2005



Environmental Communications

MGC thoroughly recognizes that we are the member of a society, and makes an effort to enhance the society's confidence to us and to live together with local community through the various communication activities concerning environment.

Disclosure of information

Environmental report publication

MGC has issued the environmental report to include all our environmental and safety efforts since 2001 and has issued its English version since 2003, and then MGC has distributed them to the public for their understanding of our environmental activities. these reports are also disclosed on the following website.

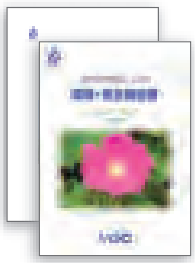
http://www.mgc.co.jp/eng/csr/index.html

In addition, the Niigata and Kashima plant have issued and distributed the environmental site report annually, and aftertime the other plants will also publish the site report.

Previous environmental reports
(English version)

Web site

Site reports



Disclosure on the internet

The Yamakita plant discloses the site information including its environmental efforts on the web site of the Kanagawa eco network* since 2004 (only in Japanese).

*The Kanagawa eco network:
http://www.pref.kanagawa.jp/osirase/iso/98/econet00.html
It is the network sponsored by Kanagawa prefecture on the internet for the building of a sustainable society among businesses, organizations, academy, local government and NPO.

Participation in the JRCC's community dialogue meetings

MGC has been working on Responsible Care activities concurrently with the Japan Responsible Care Council (JRCC) inception. The Mizushima Plant supported the community dialogue meeting in Okayama area on November 16th 2006, as one of administrative agents.
At the meeting with the participation from NGOs, community residents, local government and businesses, the plant tour and actively dialogue with community residents were implemented and the meeting turned out significant.

The 5th RC community dialogue meeting in Okayama

Participation in exhibition concerning environment

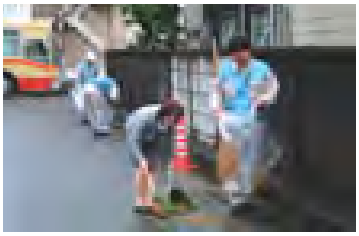
MGC exhibited the methanol fuel cell, the dumping materials and the environmental chemicals at the booth in the ECO MAnufacture (ECOMA) 2006 which was held at the PACIFIC CONVENTION PLAZA YOKOHAMA from November 29th to December 1st, 2006. MGC has been exhibiting our eco-products and eco-technologies at this exhibition since its inception in 2004. The number of visitors became twice as much as the first exhibition and this indicates that people take interest in environmental problems.

ECO MAnufacture 2006

Involvement in local communities

Beautification movements

MGC takes the various beautification movements such as regular cleaning of roads around site or a local area.



Cleaning the road around the Hiratsuka Laboratory

Cleaning the area by the Tokyo Techno-Center employee

The Mizushima plant including retired employees participated in the cleaning campaign for refreshing Mizushima Port, which was held by District Transport Bureau, Maritime Safety Agency, Okayama Prefecture, Kurashiki-City and businesses as the event for Marine Day.

Traffic safety campaign

Over the past 20 years, the Yokkaichi plant has been leading citizen to the traffic safety once a month in cooperation with neighboring 3 companies at the school routes, where there is heavy traffic.
At the same time, the Kashima plant has been checking the compliance with traffic rules twice a year such as wearing a seat belt as part of activity by the traffic safety organizations in the industrial complex.
In addition, the Niigata Research Laboratory participated in the introduction activity for traffic safety as the event for traffic safety week twice a year.

Patrol for traffic safety at the Kashima plant

Participation in community event and Opening the site

MGC promotes the communications with local community through participating in community festival, and opening our gyms and ground etc. to the community resident.

Mizushima port festival (The Mizushima plant)

Summer festival in resident's association (The Yamakita plant)

HANAMI (Viewing party of cherry blossoms at the yard of Niigata plant)

Workplace tour

Each workplace has been implementing the plant or laboratory tour for students.
The Niigata plant has been welcoming the plant tour over the past 20 years, and the Yamakita plant has been supporting the on-site one day training for local junior high school students since 2001.
In addition, the Hiratsuka Research Laboratory has been supporting the technical expert development class and the on-site training availing during spring break and summer vacation for school.

Laboratory tour (The Hiratsuka laboratory)

Contribution to society

Victim assistance

MGC donated for afflicted people by the central Java earthquake in Indonesia through the Japan Federation of Economic Organizations.

Environmental and Safety Activities in Affiliates

MGC Group's Fundamental Policies on Environment and Safety

[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 loads in business activities
- Ensuring safety in use, handling and disposal of products
- Developing environment-friendly and safety-conscious products and technologies
- Ensuring environmental preservation and safety in the logistics of obtaining raw materials and storing and delivering our products
- Enhancing of society's confidence to us

MGC group's Fundamental Policies on Environment and Safety

MGC group has been working on various activities through the environmental and safety information exchange meeting which is now consisted of MGC and chemicals working 12 affiliates and was lounched in 2003.
This meeting name was changed to the MGC group's environmental and safety conference in 2006, because the information exchange was recognized to come to stay and the activity based on PDCA cycle (planning - doing - auditing - information exchange) has been making progress and it has been beyond the information exchange, in addition, the conference developed the rule of conference.
The main activities in the conference are as follows.

(1) Meeting for environment and safety of MGC group
The meeting is held twice a year for the reporting or reviewing the annual target, result of activities, status of accident and occupational injury and etc. of MGC and each affiliate.

(2) Environmental and safety inspection
Several affiliates are inspected for environment and safety every year by Director in charge of environment and safety in MGC.
MGC inspected the Toyo Kagaku Co., Ltd, the Fudow Co., Ltd and JSP Corporation in 2006.

(3) Liaison meeting for coordinator
The executive office in conference visits an affiliate once every year and exchanges the environmental and safety information.


Auditing for environment and safety (JSP)


Liaison meeting for coordinator (Toyo Kagaku)

Environmental and safety inspection for foreign affiliate

All foreign affiliates do not participate in the conference, however, MGC also inspects foreign affiliates to support their environmental and safety activity in the similar way to domestic affiliates.
MGC inspected both MGC Pure Chemicals America, Inc. and MGC Advanced Polymer, Inc in the North America in 2006.

Environmental loads by MGC group

The following tables show the environmental loads by MGC and 12 affiliates in fiscal 2004 and 2005.

The number of production sites in MGC group			
Fiscal 2004 (MGC and 11 affiliates)		Fiscal 2005 (MGC and 12 affiliates)	
MGC	8 production sites	MGC	8 production sites
Affiliates	27 production sites	Affiliates	30 production sites

INPUT	Unit	FY 2004	FY 2005	year-to-year basis
Energy consumption (as crud oil)	10^3 kl	630	657	1.04
Water consumption	km^3	44,071	45,103	1.02
Drinking water	km^3	1,276	1,342	1.05
Groundwater	km^3	1,653	1,745	1.06
Industrial water	km^3	25,406	25,860	1.02
River water	km^3	14,625	14,717	1.01
Others	km^3	1,111	1,439	1.30

OUTPUT	Unit	FY 2004	FY 2005	year-to-year basis
Atmospheric emissions				
GHG emission (as CO_2)	k tons	1,761	1,858	1.06
SOx emission	tons	341	470	1.38
NOx emission	tons	979	1,081	1.10
Soot and dust emissions	tons	84	59	0.70
Emission of PRTR substances	tons	1,351.0	1,397.4	1.03
Release to water area				
Total drainage volume	km^3	37,908	37,682	0.99
COD emission	tons	279	318	1.14
Total nitrogen emission	tons	519	442	0.85
Total phosphorus emission	tons	67	75	1.12
Release of PRTR substances	tons	36.6	36.8	1.01
Release to soil	tons	0	0	0
Waste treatment				
Generation of waste	tons	174,880	173,134	0.99
Transfer to off-site	tons	32,486	39,653	1.22
Final disposal waste	tons	1,828	1,890	1.03
Transfer of PRTR substances	tons	687.1	841.4	1.22

A.G. International Chemical Company Inc. (AGIC)

AGIC has the 120 k tons/year production capacity facility in MGC Mizushima plant, and promotes the RC activity based on the basic policy of company and site.
We concentrate our efforts on the following activities; 1) to ensure RC philosophy, 2) to improve sensibility for risk, 3) preventive maintenance 4) stable operating 5) reduction of waste 6) improvement of environmental load and 7) improvement of logistic activity.

Representative Director, President
Yoshio Kawazoe

Manufacture and sale of purified isophthalic acid

Tokyo Sakurada Bldg., 1-3, Nishishinbashi 1-chome, Minato-ku, Tokyo 105-0003, Japan
Phone:+81-3-3503-4811 http://www.agic.co.jp/e_agic/index.html

Eiwa Chemical Industrial Co., Ltd

I recognize that environment and safety is a keyword to sustainable production of blowing agents to rubber or plastic.
We take notice of ensuring the safety and the environment and make efforts to improve them through setting the specific targets by 5S activity and environmental management system which was lounched from the previous fiscal year.

Representative Director, President
Toshio Matsuzaki

Manufacture and sale of blowing agents

Daido Seimei co. Kyoto Bldg., 595-3, Sanjio-sagaru Karasuma-dori, Manjuya-cho, Nakagyo-ku, Kyoto-City, Kyoto 604-8161, Japan
Phone:+81-75-256-5131 http://www.eiwa-chem.co.jp/

MGC Filsheet Co., Ltd.

The Tokorozawa factory is located at Musashino in the bosom of nature. And the Osaka factory is located near the Kanzaki River, branch of the Yodo River.
Since the institution's formation at each place, we have been making efforts to ensure environment and to live together with local community.
In our beautiful environment, I hope we will eco-friendly expand our business by the safety first together with local community.

Representative Director, President
Kazuo Noguchi

Manufacture of PC sheet and film

4-2242, Mikajima, Tokorozawa-City, Saitama 359-1164, Japan
Phone:+81-4-2948-2151 http://www.mgcfs.jp/top.html

Electrotechno Co., Ltd

We, Electrotechno Co., Ltd, have achieved some progress in 5S activities over the 10 years.
Because I think that 5S activity is the basis not only for ensuring of environment and safety but also for production activity, we have intention to promote our business by supplying our superior advanced technologies and services through the further improvement of 5S activity.

Representative Director, President
Toshio Kawasaki

Manufacture of copper clad laminates for printed circuit board

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

Environmental and Safety Activities in Affiliate (2)

JSP Corporation

I recognize that any foamed plastics contribute to the environment preservation in aspect of energy and resource saving through the employment on various fields because of their superior thermal insulation and cushioning properties.
We make efforts to reduce the environmental loads during products supply process and to ensure the safety of interested persons as our most important issue.

Representative Director, President
Rokurou Inoue

Manufacture and sale of foamed plastics
Shin-Nisseki Bldg., 3-4-2, Marunouchi, Chiyoda-ku,
Tokyo 100-0005, Japan
Phone: +81-3-6212-6300 http://www.co-jsp.co.jp/jspi/jsp/index.html

JAPAN FINECHEM Co., Inc.

We have established the system to prevent similar accidents from happening in future and worked on various activities because the Sakaide and Niigata plant had accidents in the previous year, however, there are some troubles at there even now.
I have the intention that our company, executives and employees in one body, makes efforts to achieve the elimination of accident and the ensuring safety and stable operation as our most important issue by modification of system from October, 2006.

Representative Director, President
Norio Hakuta

Manufacture and sale of chemical products and electronic parts
Iino Bldg.,2-1-1, Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011, Japan
Phone: +81-3-3501-5656 http://www.jfine.co.jp/eng/index.html

Toyo Kagaku Co.,Ltd

Toyo Kagaku was certificated by ISO 14001 in 2003 and then has made efforts on environmental activity which is recycling of classified waste.
As the result, the monthly average of waste in November 2006 decreased to one-quarter of the monthly average in the fiscal 2003. Over the 5 years, we have not had occupational injury because of our focusing on safety activity. In addition, we make efforts to consider anti-earthquake measures, since our area is supposed to have the influence of the Tokai earthquake.

Representative Director, President
Gorou Shimaoka

Manufacture of injection molding processed products
51-497, Aza-Dodo, Oaza-Morowa, Togo-cho, Aichi-gun,
Aichi 470-0151, Japan
Phone: +81-561-39-0531 http://www.toyo-kagaku.co.jp/

Japan Circuit Industrial Co., Ltd.

Japan Circuit Industrial was given the certification of the environmental management system ISO 14001 in June 2006.
We take this opportunity to establish the Environment and Safety Division by selected staff, and then we make efforts to reduce the environmental loads by using this system and to ensure the safety as our most important issue for aiming the zero accident and zero occupational injury.

Representative Director, President
Kouzou Yamane

Manufacture and sale of printed circuit boads

2-1236, Kamiike-cho, Toyota-City, Aichi 471-0804, Japan
Phone: +81-565-88-3718 http://www.jci-jp.com/

Japan Pionics Co., Ltd

Japan Pionics has decided the Safety first across the organization and the global environmental preservation and prevention of pollution as our policies on environment and safety, which serves as fundamental elements of environmental and safety activities, and has set 18 integral targets in order to put into practice the policies referred to above.
In addition, we have been working on the voluntary activities based on proposed Responsible Care implementation items by JRCC.

Representative Director, President
Ryouichi Takahashi

Manufacture and sale of gas purifiers and surface heater

Tokyo Sakurada Bldg., 1-1-3, Nishi-Shinbashi, Minato-ku, Tokyo 105-0003, Japan
Phone: +81-3-3506-8801 http://www.japan-pionics.co.jp/en/index.html

Japan U-PiCA Co., Ltd

Japan U-PiCA has the philosophy of contribution to fulfill the wealthy society and welfare, and makes efforts to ensure social responsibility such as global environmental preservation, occupational injury prevention and etc.
For this, we make efforts to reduce the waste by reusing or recycling the resources, to manage the chemicals and to prevent the occupational injury, and finally, we aim that our products are those friendly to the earth.

Representative Director, President
Tomihiro Ogino

Manufacture and sale of unsaturated polyester

Iino Bldg.,2-1-1, Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011, Japan
Phone: +81-3-3503-3981 http://www.u-pica.co.jp

Fudow Co., Ltd

Fudow is doing the molding and processing of engineering plastics including thermosetting molding materials at the three domestic factories.
We have decided the improvement of occupational safety and health, the reduction of environmental loads as our fundamental policies, and then, under improvement of rules, we are promoting 5S and other activities for aiming zero accident and zero occupational injury. Our environmental and safety management rule was instituted in April, 2006.

Representative Director, President
Katsuaki Sato

Manufacture and sale of resins and molded components

No.7th Daigo Bldg., 7-20-5, Nishi-Kamata, Ota-ku, Tokyo 144-0051, Japan
Phone: +81-3-3737-0611 http://www.fudow.co.jp/e-index.html

Mizushima Aroma Co., Ltd.

I recognize that safety is cornerstone of production activity.
Fortunately, Mizushima Aroma has been continuing zero accident and zero occupational injury over 15 years, though, this fact does not any guarantee our future.
Our issue is to inherit the security of safety as our culture toward in the future.
In addition, we make efforts to reduce environmental loads to fulfill corporate social responsibility by including it in the plant management plan.

Representative Director, President
Kunisuke Usuda

Manufacture and sale of purified terephthalic acid

2-3-1, Mizushima-nakadori, Kurashiki-City, Okayama 712-8072, Japan
Phone: +81-86-446-4570

Responsible Care Activities at Each Plant

Natural Gas Chemicals Company

The Niigata plant

Address: 3500, Matsuhama-cho, Niigata-City, Niigata 950-3121, Japan

Phone: +81-25-258-3474

Comments by plant manager

The Niigata plant is located in beautiful and water-rich environment as represented by the Japan Sea on the north side and the Agano River on the west side. In this environment, we have determined the environmental preservation and the ensuring the safety as the base for our business, and have set the target of reduction of environmental loads, the zero accident and zero occupational injury and safety-security-stability operation.
We are together working on the sound development of us for aiming to promising plant and gaining trust of community by securing of compliance.

Plant manager
Yoshihiro Yamane

CO_2 emissions (k tons)	565
NOx emissions (tons)	383
SOx emissions (tons)	0
COD emissions (tons)	33
Transfer to off-site of waste (tons)	2,631
Final disposal waste (tons)	280

Main products

- Ammonia
- Formalin
- Methyl methacrylate
- Methaxylylene diamin
- Ubidecarenone (Co-enzyme Q_{10})

Substances listed by PRTR law	Emission (tons)	Transfer (tons)
Ethylene oxide	6.3	0
Methyl methacrylate	1.1	26.0
Vanadium pentoxide	0	12.0

Aromatic Chemicals Company

The Mizushima plant

Address: 3-10, Mizushima Kaigandori, Kurashiki-City, Okayama 712-8525, Japan

Phone: +81-86-446-3822

Comments by plant manager

We have been promoting to reduce the environmental loads by the ISO 14001 introduced in 2000 for promoting system of RC activity.
In the fiscal 2006, we held the RC community dialog meeting in November, as the result of this meeting, we had good interactive conversation with community representatives.
We have the intension to work on co-existence and co-prosperity with community as safety and security plant in the future.

Plant manager
Shigenobu Ono

CO_2 emissions (k tons)	653
NOx emissions (tons)	472
SOx emissions (tons)	383
COD emissions (tons)	168
Transfer to off-site of waste (tons)	2,230
Final disposal waste (tons)	40

Main products

- Xylenes
- Aromatic aldehydes
- Trimellitic anhydride
- Pyromelltic anhydride
- Polyols

Substances listed by PRTR law	Emission (tons)	Transfer (tons)
Xylenes	78.0	33.0
Hydrogen fluoride and its water soluble salt	23.8	0.9
Ethylbenzene	6.3	0

Specialty Chemicals Company

The Kashima plant

Address: 35, Higashi Wada, Kamisu-City, Ibaraki 314-0102, Japan

Phone: +81-299-96-3121

Comments by plant manager

The Kashima plant has been working on the reduction of the environmental loads. For example, we make efforts to reduce the volatile organic compounds emission to atmosphere and to recycle the heat insulator and glass debris.
For understanding of local residence on these activities, we publish and distribute the environmental and safety site report.

Corporate officer
Plant manager
Makoto Mizutani

CO_2 emissions (k tons)	185
NOx emissions (tons)	7
SOx emissions (tons)	0
COD emissions (tons)	12
Transfer to off-site of waste (tons)	617
Final disposal waste (tons)	13

Main products

- Hydrogen peroxide
- Polycarbonate

Substances listed by PRTR law	Emission (tons)	Transfer (tons)
Dichloromethane	210.0	1.4

Specialty Chemicals Company

The Yokkaichi plant

Address: 2-4-16, Hinagahigashi, Yokkaichi-City, Mie 510-0886, Japan

Phone: +81-593-45-8800

Comments by plant manager

The Yokkaichi plant has already achieves the 6% reduction of GHG emission in comparison with 1990, which is specified by the Kyoto Protocol, and is almost certain to achieve the numerical target on energy consumption rate and GHG emission index in comparison with 1990. From now on, we will work on the business activity, by making efforts to reduce environmental load, which will result in the affable attitude to earth and also will endear us to community residence.

Corporate officer
Plant manager
Yuh Miyauchi

CO_2 emissions (k tons)	129
NOx emissions (tons)	30
SOx emissions (tons)	21
COD emissions (tons)	40
Transfer to off-site of waste (tons)	3,694
Final disposal waste (tons)	8

Main products

- Hydrogen peroxide
- Chemicals for electronics industries
- Polyacetal
- Monomer for plastic lens
- Sodium percarbonate

Substances listed by PRTR law	Emission (tons)	Transfer (tons)
Ethylene oxide	1.7	0
Methyl methacrylate	2.1	8.6

Specialty Chemicals Company

The Yamakita plant

Address: 950, Kishi, Yamakita-machi, Ashigarakami-gun, Kanagawa 258-0112, Japan

Phone: +81-465-75-1111

Comments by plant manager

Since the establishment in 1933, the Yamakita plant has been managing the production activity under the favorable condition the we can reasonably and abundantly use water of the Sakawa River flowing at the side of plant.
Even now after 70 years-old, we recognize that it is most important mission for our plant to use this water with good care, which is used for agricultural and fishing industry, through cooperation with community residence.

Plant manager
Takayuki Watanabe

CO_2 emissions (k tons)	33
NOx emissions (tons)	9
SOx emissions (tons)	5
COD emissions (tons)	14
Transfer to off-site of waste (tons)	219
Final disposal waste (tons)	26

Main products

- Ultra pure hydrogen peroxide
- Persulfates
- Chemical polishing agents
- Acetyl hydroperoxide

Substances listed by PRTR law	Emission (tons)	Transfer (tons)
Ethylene oxide	0	0.6

Location of other workplaces

Natural Gas Chemicals Company

The Niigata research laboratory Address: 182, Tayuhama Shinwari, Niigata-City, Niigata 950-3112 Phone: +81-25-259-8211

Aromatic Chemicals Company

The Hiratsuka research laboratory Address: 6-2, Higashiyawata 5-chome, Hiratsuka-City, Kanagawa 254-0016 Phone: +81-463-21-8600

Specialty Chemicals Company

The Naniwa factory Address: 3-27, Funamachi 1-chome, Taisho-ku, Osaka -City, Osaka 551-0022 Phone: +81-6-6551-3371

The Saga factory Address: 681-45, Kamikumakawa, Fuji-cho, Saga-City, Saga 840-0512 Phone: +81-952-64-2400

The Tokyo research laboratory Address: 1-1, Niijuku 6-chome, Katsushika-ku, Tokyo 125-0051 Phone: +81-3-5699-9711

Information and Advanced Materials Company

The Tokyo techno-center Address: 1-1, Niijuku 6-chome, Katsushika-ku, Tokyo 125-8601 Phone: +81-3-3627-9411

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