



# CSR Report

Corporate Social Responsibility Report

MHI Social and Environmental Report

## 2008

# Creed

1. We strongly believe that the customer comes first and that we are obligated to be an innovative partner to society.
2. We base our activities on honesty, harmony, and a clear distinction between public and private life.
3. We shall strive for innovative management and technological development from an international perspective.

## Reason for Instituting the Creed

In Japan there are many enterprises with their own "creeds" which simply represent their management concept.

Mitsubishi Heavy Industries, Ltd. has a creed of this type, also. It was instituted in 1970 on the basis of the policy advocated by Koyata Iwasaki, president of Mitsubishi Goshi Kaisha in the 1920s, to indicate the essential attitude of the

company, the mental attitude of employees, and the future directions of the company.

The reason for instituting the present creed is so that all of us can call to mind our one hundred years of tradition and strive for further development in the future.

Issued June 1, 1970

## Editorial Policy

Mitsubishi Heavy Industries, Ltd. (MHI) published its first Environmental Report in 2001 and then in 2004 started to publish its Social and Environmental Reports with an expanded scope that included economic and social considerations. Since then, we have reported on the actions MHI is taking and how it is striving to fulfill its corporate social responsibility (CSR), centered on its mission and responsibilities as a manufacturing company.

In this 2008 report, our new president, Hideaki Omiya (appointed in April 2008), states the MHI Group's attitude and policy for CSR. CSR Action Guidelines are also explained in detail, as well as medium-term targets and action plans formulated in April 2008 with the goal of establishing PDCA cycles for CSR activities.

Representative initiatives are introduced in feature articles under three themes: "close ties with the Earth," "close ties with society", and "a bridge to the next generation." These articles describe actions we are taking and intend to take to fulfill our mission and responsibilities.

We have positioned this report as a key communication tool with our stakeholders and intend to further improve it in response to stakeholder feedback.

## Disclaimer

In addition to objective information on the past and present status of Mitsubishi Heavy Industries, Ltd. and its Group companies, this report also contains plans, perspectives, and forecasts based on business plans and management policies as of the date of publication. These forecasts are based on information available at the time of publication and therefore the actual status and outcome of future business activities may differ from these forecasts as a result of changes in the given variables.

## Scope of this Report

### Target organization:

The information contained in this report pertains to Mitsubishi Heavy Industries, Ltd. and its Group companies (131 in Japan and 84 overseas). Some articles, however, only include descriptions of MHI activities.

### Target period:

April 1, 2007 through March 31, 2008  
(includes information on some activities after March 31, 2008)

## Referenced Guidelines

- Global Reporting Initiative (GRI) "Sustainability Reporting Guidelines" (2002 edition G2 and third edition G3)
- "Environmental Reporting Guidelines" (2003 edition) issued by the Japanese Ministry of the Environment

Note: A "Guideline Comparison List" will be posted on our website in August 2008.

## Date of Issuance

June 2008 (previous issue: June 2007)



# CONTENTS

Creed/Editorial Policy .....	1
Contents .....	2
Message from the President .....	3
Overview of the MHI Group .....	5
CSR of the MHI Group .....	7

## Special Feature

### Close ties with the Earth

Providing energy and environmental technologies to nations everywhere to help solve the global warming problem .....	9
Supplying GTCC technology in China to realize higher power-generating efficiency and reduce environmental loads amid a steady rise in power demand .....	11

### Close ties with Society

In Saudi Arabia, a country lacking sufficient water resources, MHI is building a large-scale plant to convert seawater to fresh water .....	13
To commemorate the 150th anniversary of the Nagasaki Shipyard & Machinery Works, MHI is participating in community contribution activities .....	15
The Takasago Machinery Works in Hyogo plans and holds educational, welfare and cultural events .....	16

### A bridge to the next Generation

MHI organizes science classes in elementary and junior high schools to communicate the appeal of manufacturing .....	17
Stakeholder Meeting .....	19

CSR Action Plans .....	23
------------------------	----

## Responsibilities and Actions of MHI

<b>Management</b> .....	<b>25</b>
Corporate Governance .....	26
Promotion of CSR .....	28
Compliance .....	31
<b>Commitment to the Global Environment</b> .....	<b>35</b>
Environmental Management .....	36
Targets and Progress .....	39
Environmental Accounting .....	40
Countermeasures against Global Warming .....	41
Resource Conservation and Waste Management .....	43
Management of Chemical Substances .....	44
Easing the environmental burden through business operations and Products .....	45
<b>Commitment to People and Society</b> .....	<b>47</b>
Commitment to Our Customers .....	48
Commitment to Our Shareholders and Investors .....	50
Commitment to Our Suppliers .....	51
Commitment to Our Employees .....	53
Contributions to Society .....	55

Progress Toward a Sustainable Society .....	59
Third-Party Opinions .....	60
Acting on Valuable Opinions .....	60



**Message from the President**  
We aim to be a company that pursues lofty goals with brisk speed

P3

## Special Feature

### Close ties with the Earth



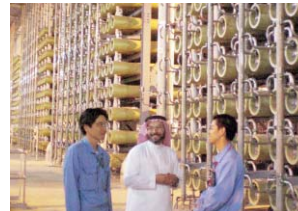
Providing energy and environmental technologies to nations everywhere to help solve the global warming problem



Supplying GTCC technology in China to realize higher power-generating efficiency and reduce environmental loads amid a steady rise in power demand

P9

### Close ties with Society



To commemorate the 150th anniversary of the Nagasaki Shipyard & Machinery Works, MHI is participating in community contribution activities



The Takasago Machinery Works in Hyogo plans and holds educational, welfare and cultural events

P13

### A bridge to the next Generation



MHI organizes science classes in elementary and junior high schools to communicate the appeal of manufacturing

P17

### Stakeholder Meeting



Listening to children who attended the science class



Dialogue with external experts



# We aim to be a company that pursues lofty goals with brisk speed

### **Committed to fulfilling our responsibilities as a manufacturer of products supporting societies and economies worldwide**

As a business enterprise engaged in manufacturing, MHI receives capital from its shareholders and investors and earns profits by utilizing those funds to produce products and deliver them to its customers. Our duties as a manufacturer are, I believe, not only to allocate our profits appropriately to all stakeholders involved in our operations, but also to direct our profits effectively into research and development and capital investments that will foster our own corporate growth, and to manufacture products of ever higher value.

Particularly in MHI's case, in keeping with our underlying creed proclaiming that "we are obligated to be an innovative partner to society," since our founding in 1884 we have

provided a wide array of products that support social development and people's lives—products ranging from space rockets and power generation plants to ships, industrial machinery and home air-conditioners. We also provide numerous "eco-energy" products—products developed for ecological, economic and/or energy benefits—worldwide to resolve environmental and energy problems; and we support societies and economies across the globe in building infrastructures, for example transportation systems and public facilities. Today, as a company with a worldwide presence, our responsibilities are increasing in scale all the more.

Recognizing the scale of those responsibilities, we believe that MHI's corporate social responsibility (CSR) is to achieve sustained growth for the good of all its stakeholders, for the world, and for the Earth.

**“CSR Action Guidelines” and “CSR Action Plan” formulated to take CSR-focused business operations to a deeper level**

Taking our responsibilities to heart, through the years MHI has consistently strived to manufacture products of outstanding safety and quality, vigorously pursued business ethics and compliance as its corporate bedrock, and proactively promoted environmental protection, human rights and the rights of all workers. Today we continue to operate with a strong focus on CSR, as illustrated by our participation in the United Nations Global Compact initiative since 2004.

To take these activities to a deeper level, in October 2006 we established our CSR Committee chaired by the President. This was followed in July 2007 with the formulation of the “MHI Group CSR Action Guidelines” having three basic vectors: “close ties with the Earth,” “close ties with society,” and “a bridge to the next generation” (see p. 7). Based on these guidelines, we also drew up our newest Medium-Term Business Plan as a “CSR Action Plan” (see p. 23). Going forward, we will steadily execute the core initiatives incorporated into this plan and strengthen our CSR actions groupwide.

In 2008 especially, we believe prevention of global warming will be a major focus. To begin, 2008 marks the start of the first commitment period of the Kyoto Protocol. And in July 2008, the environment and response to climate change are slated to be on the agenda of the G8 Hokkaido Toyako Summit.

MHI, as one of the few companies able to respond to these problems on global scale, is contributing to curbing carbon dioxide emissions through the provision worldwide of highly efficient power generating plants relying on a variety of energy resources: fossil fuels, nuclear power and natural energy, for example. We are also focusing our efforts on diverse products to protect the environment, such as CO<sub>2</sub> recovery plants, flue gas desulfurization plants and biomass utilization plants; and we are actively working to develop technologies and products—desalination plants, for example—to solve problems such as climate change and inadequate water resources.

Another issue of extreme importance is the reduction of the environmental burden generated in tandem with MHI’s own business operations. Of our own volition we have set a goal of cutting the CO<sub>2</sub> emissions from our production plants, averaged over a five-year period from fiscal 2008 through fiscal 2012, by 6% from the level of fiscal 1990. Today we are taking diverse steps toward the realization of that goal: for example, installing Solar Power Generation System—one of our own products—at all company works.

In conjunction with our commitment to contribute to the “cultivation of human resources who can shoulder responsibility in the next generation,” a central point in our CSR Action Guidelines, we aim to further enhance the facilities and in-house events of the Mitsubishi Minatomirai Industrial Museum, our venue demonstrating the excitement of science and

technology to children and young adults. We will also continue new initiatives such as conducting science classes at elementary and junior high schools nationwide.

**Taking the lead in advancing corporate culture reforms in a quest to be a “strong and agile global player”**

In order for MHI to achieve sustained growth while fulfilling its social responsibilities as a business corporation, a major requirement will be to continue burnishing and developing the company’s prowess in manufacturing—its “profession.”

Today, by way of revamping our manufacturing structure, we are promoting business process reforms from the dual aspects of information and hardware. These reforms include: standardization and sharing of business processes as the starting point of design; reform of manufacturing workplaces through the cultivation of human resources, updating of equipment, etc.; and the achievement of a seamless flow throughout the entire supply chain, including material suppliers and sales companies. Through these initiatives we are putting together a system for manufacturing products of high reliability faster and more competitively than ever before. We firmly believe that actions of these kinds will not only invite full customer satisfaction but also enable us to respond even more faithfully to the trust and expectations of society, and we pledge going forward to continue to promote, with vigor, business process reforms bringing together wisdom and knowledge from both within and outside the company.

Needless to say, it is equally important for us to abide by all laws, regulations and social conventions relevant to our manufacturing and business activities, and to be fair and sincere in all our actions. We will work to improve our employee compliance education from the twin aspects of awareness and knowledge, and also to further enhance the mechanisms, centering on our Compliance Committee, for promoting compliance groupwide.

With the entire world changing today at breakneck speed, it is indispensable for us to create a corporate culture that pursues lofty goals with brisk speed, so that we may carry forward our reforms through the concerted efforts of the entire MHI Group, from those in management to each employee at all workplaces. Toward that end, I am carrying on the “town meetings” instituted by former President Tsukuda, visiting the various works and creating opportunities for direct dialogue with employees in a quest to promote awareness reform in all personnel.

I am fully prepared to take the lead in pushing reforms so that MHI can develop into a “strong and agile global player.” You can count on me.

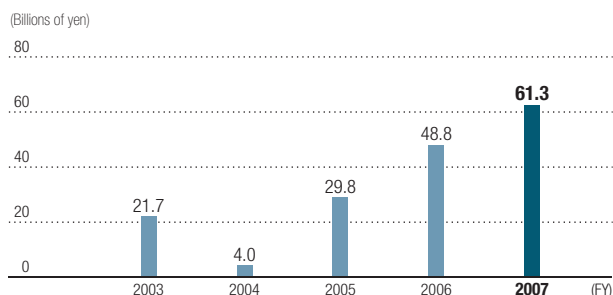
  
Hideaki Omiya, President

# Overview of the MHI Group

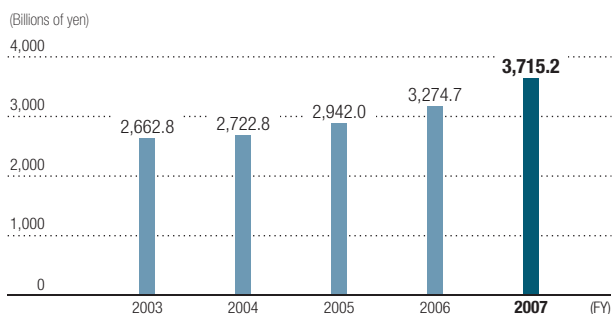
## Company Profile

<b>Trade Name:</b>	Mitsubishi Heavy Industries, Ltd.
<b>Head Office:</b>	16-5, Konan 2-chome, Minato-ku, Tokyo
<b>President:</b>	Hideaki Omiya
<b>Foundation:</b>	July 7, 1884
<b>Establishment:</b>	January 11, 1950
<b>Capital:</b>	265.6 billion yen (as of March 31, 2008)
<b>Employees:</b>	33,089 (as of March 31, 2008)

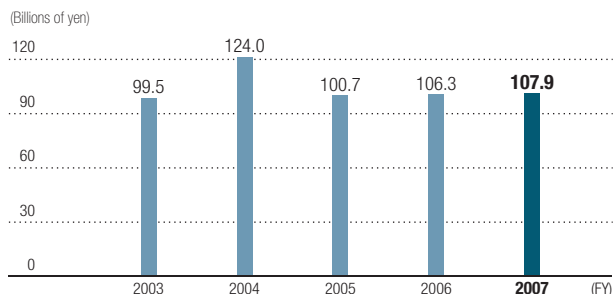
## Net income (consolidated)



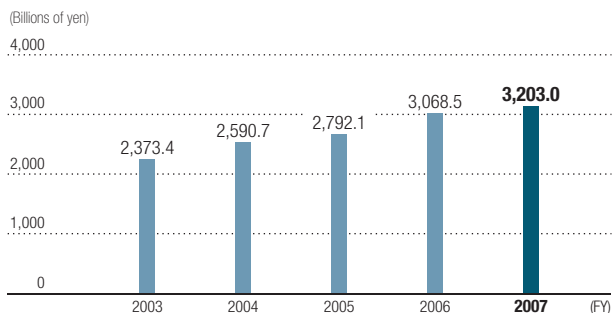
## Orders received (consolidated)



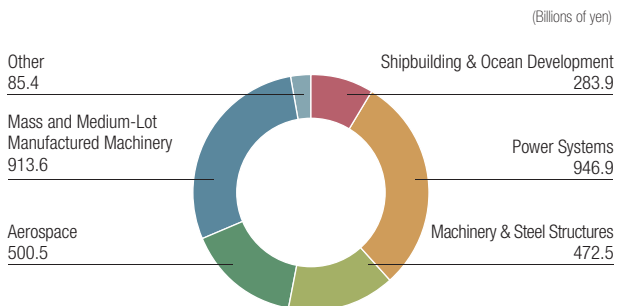
## Research and development expenditures



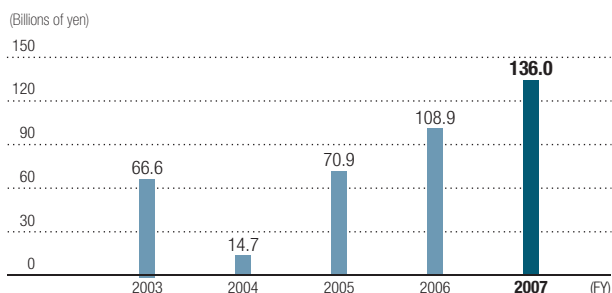
## Net sales (consolidated)



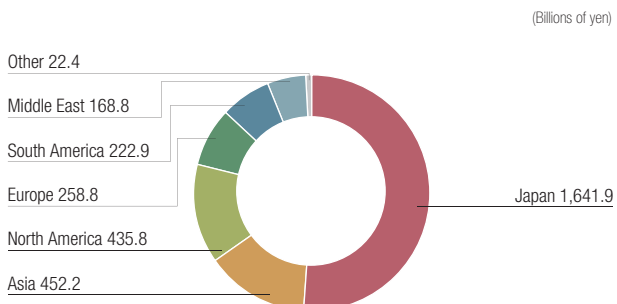
## FY2007 sales by industry segment (consolidated)



## Operating income (consolidated)



## FY2007 net sales by region (consolidated)





## Businesses and Products

### Shipbuilding & Ocean Development

Shipbuilding & Ocean Development Headquarters

#### Sea vessels

- Passenger ships
- LNG carriers
- LPG carriers
- Oil carriers
- Container carriers
- Automobile carriers
- Ferries
- Naval vessels
- Patrol vessels

#### Ocean development

- Submersible research vehicles
- Oceanographic research ships

### Power Systems

Power Systems Headquarters

Nuclear Energy Systems Headquarters

#### Thermal power generation plants and other facilities

- Steam turbines
- Gas turbines
- Boilers
- Diesel engines
- Fuel cells
- Desalination plants

#### Renewable energy

- Wind turbine plants
- Water turbine plants
- Geothermal power plants
- Photovoltaic systems

#### Nuclear power plants and other facilities

- PWR nuclear power plants
- Advanced reactor plants
- Nuclear fuels
- Nuclear fuel cycle plants

### Machinery & Steel Structures

Machinery & Steel Structures Headquarters

#### Chemical and energy

- Petrochemical plants
- Methanol plants
- Compressors and turbines

#### Environmental conservation

- Flue gas desulfurization systems
- Flue gas CO<sub>2</sub> recovery plants
- Waste incinerators

#### Material handling

- Transportation systems
- Toll collection equipment (ETC, etc.)

#### Basic facilities and structures, others

- Cranes for iron works and factories
- Mechanical parking systems
- Bridges
- Coastal structures

#### General/metal machinery

- Iron and steel manufacturing machinery
- Rubber and tire machinery

### Mass and Medium-Lot Manufactured Machinery

General Machinery & Special Vehicle Headquarters

Air-Conditioning & Refrigeration Systems Headquarters

Paper & Printing Machinery Division

Machine Tool Division

#### Loading and transport

- Forklift trucks
- Automatic guided vehicles

#### Turbochargers

- Turbochargers

#### Air-Conditioners and related products

- Air-conditioners (for residential, commercial, automotive use)

- Transport refrigeration units
- Centrifugal chiller

#### Industrial machinery

- Machine tools
- Printing machinery
- Paper converting machinery
- Plastic injection molding machine
- Food and packaging machinery
- Commercial washing machines

#### Construction machinery

- Earthmoving and grading machinery

#### Engines

- Industrial engines
- Marine engines
- Engines for power generation
- Agricultural engines

#### Special vehicles

- Tanks
- Armored personnel carriers

### Aerospace

Aerospace Headquarters

#### Aviation

- Commercial aircraft
- Aircraft engines
- Jet fighters
- Helicopters

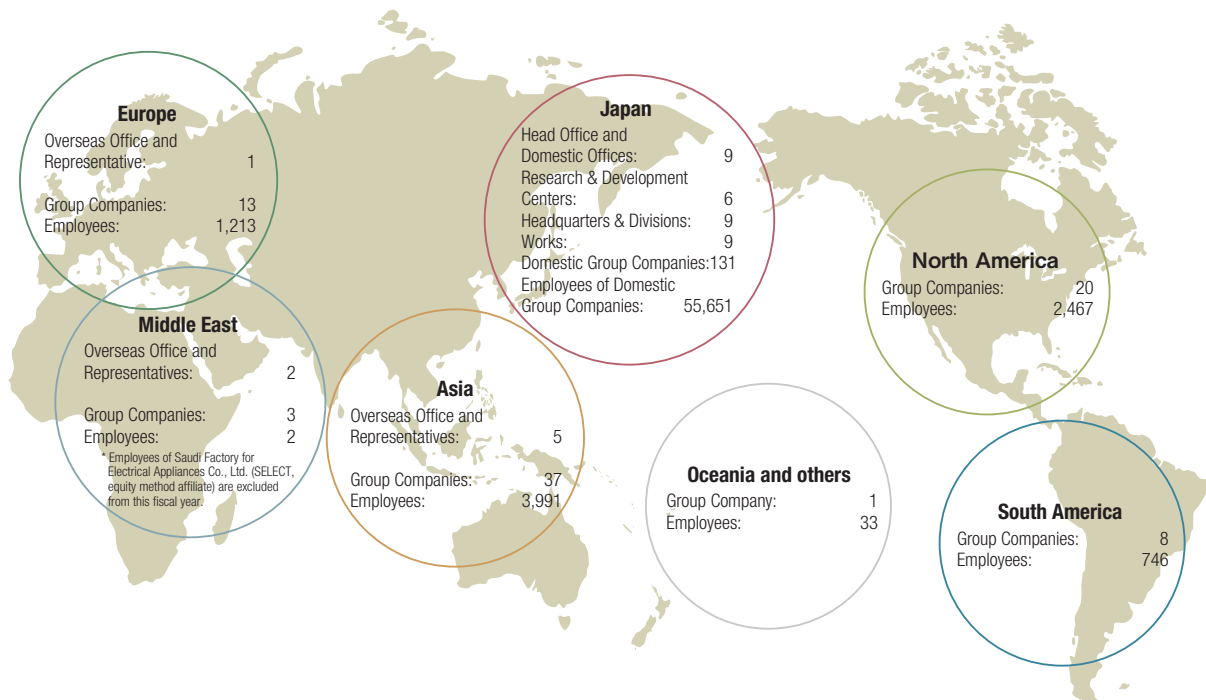
#### Space equipment

- H-IIA launch vehicle
- Rocket engines

#### Guided weapon systems

- Missiles
- Torpedoes

## Operating Bases and Employees by Region Total number of employees (consolidated basis): 64,103 (as of March 31, 2008)



**Aiming to win the solid trust of society through the advancement of CSR**

The underlying objective of the MHI Group is, as a manufacturer, to carry out CSR through production activities; and we are working to achieve that goal under our CSR Action Guidelines and CSR Action Plan.

**MHI Group CSR Action Guidelines** (formulated July 2007)

In order to ensure a secure future for the Earth, we will establish and maintain,

**Close ties with the Earth**

Safeguard an abundantly green Earth through environmental technologies and environmental awareness;

**Close ties with Society**

Build a relationship of trust with society through proactive participation in society and trustworthy actions;

**A bridge to the next Generation**

Contribute to the cultivation of human resources who can shoulder responsibility in the next generation through technologies that can realize dreams.

**Undertaking CSR through production activities**

As outlined in our corporate creed (see p. 1), the underlying objective of the MHI Group is to contribute to society as a manufacturing enterprise that provides products in support of the world's infrastructure as well as its ecological, economic and energy needs.

The core aims of our CSR initiatives are to minimize the environmental loads emanating from our production activities through the achievement of zero

emissions and CO<sub>2</sub> emission reduction activities, to generate solid earnings through product differentiation, and to allocate our earnings appropriately on an ongoing basis for the growth of all stakeholders and the MHI Group.

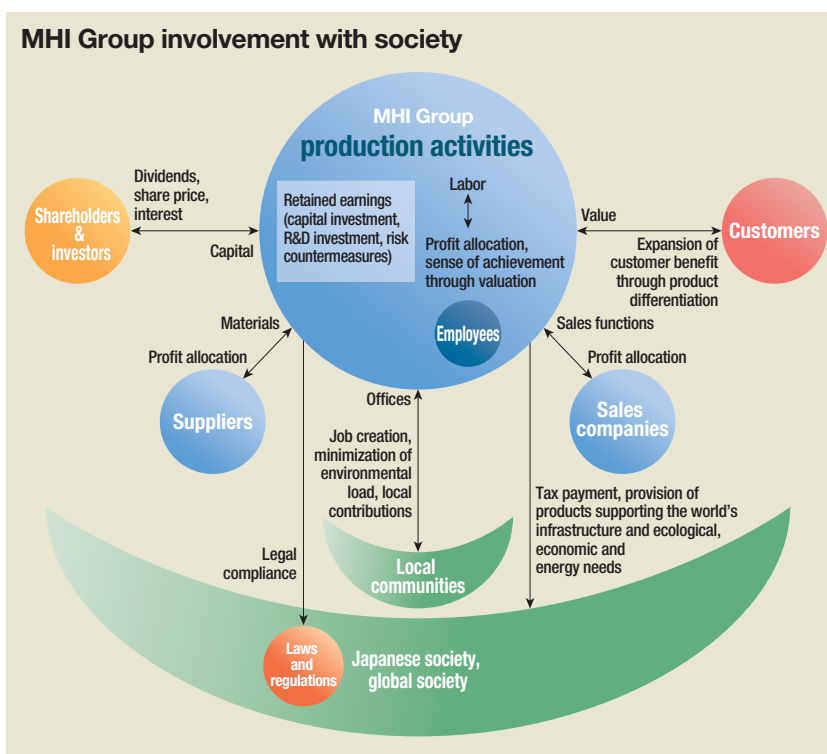
**Advancing organized CSR activities through the establishment of committees charged with specific topics**

To achieve the foregoing goals, MHI consistently strives to develop and

provide products responding to the expectations of the customer and society, and also strives for innovations in production activities through manufacturing innovation activities (see p. 27).

Meanwhile, in order to secure the strong trust of society, a prerequisite to our production activities, we have established committees variously overseeing matters such as compliance, environmental protection, and human rights and labor issues. Each year these committees have proposed and implemented specific measures in their areas.

In addition, in order to make these various activities more strategic and comprehensive, in October 2006 the company launched a CSR Committee chaired by the President and a CSR Promotion Department, the latter handling related office duties. CSR Directors and CSR Practice Managers were also set up within each division, headquarters, company works and Group affiliate. In this way, a system was inaugurated capable of formulating policies, understanding and managing the status of related activities, and extracting points in need of improvement in an organized manner.



3rd meeting of CSR Committee



**“CSR Action Guidelines” formulated to promote voluntary actions among employees**

At the first meeting of the CSR Committee in December 2006, in a quest to induce CSR awareness in all employees and inspire voluntary actions, deliberations and decisions focused on setting down CSR Action Guidelines for the entire MHI Group and organizing a working group, centering on female and younger employees, to handle the guideline preparations.

In February 2007 the “CSR Working Group” thus came into being, its 46 members (27 male, 19 female) drawn from MHI divisions, headquarters and works as well as Group affiliates. Between February and March, members met on three occasions to engage in discussions debating such topics as defining MHI’s strengths and distinguishing traits and selecting important CSR issues. Out of these discussions emerged a CSR Action Guidelines proposal and a plan for representative CSR activities.

The Working Group’s proposal was deliberated at the second meeting of the CSR Committee, convened in July 2007, and after appending specific guidelines for each issue, the revised proposal was approved as the formal set of guidelines for the MHI Group.

Next, to induce greater awareness of these guidelines throughout the Group, pocket cards were prepared

containing the complete text of the CSR Action Guidelines and commentary; a screen saver was designed, using image photography, to visually express the message imbued in the guidelines; and a digest version of the “CSR Report” was created featuring commentary on the CSR Action Guidelines. These items were distributed to all domestic Group employees.

To further promote awareness within the workplace, CSR training is being conducted at all company works. Also, to serve as a symbol of MHI’s commitment to CSR, the President planted a commemorative “CSR promotion tree.”

**3-year “CSR Action Plan” formulated toward secure operation of PDCA cycles**

While awareness reform was being promoted among employees, a third meeting of the CSR Committee was held in December 2007 aimed at

enhancing the quality and expanding the volume and scope of CSR actions themselves and setting PDCA cycles securely in motion. Deliberations at this session led to the formulation in April 2008 of the MHI CSR Action Plan (see p. 23).

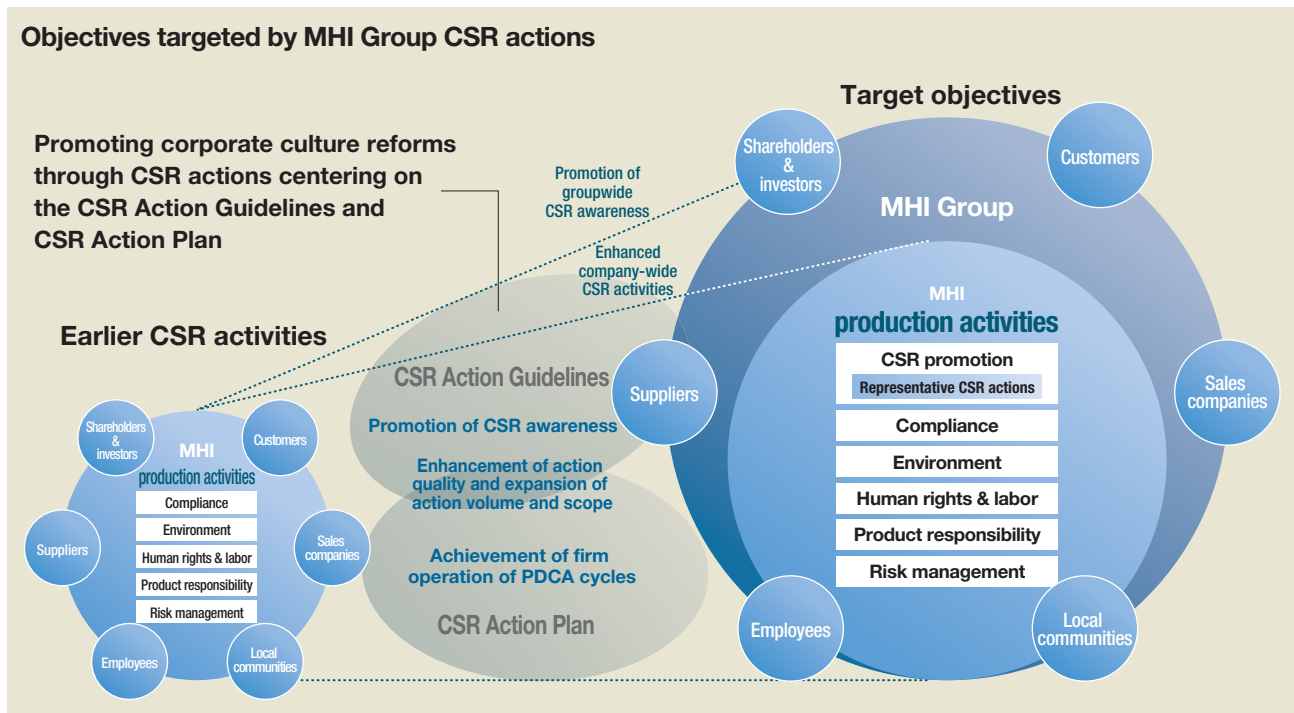
Under the CSR Action Plan, CSR activities are to be carried out during the three-year period from fiscal 2008 through fiscal 2010 in the following six areas: CSR promotion (including contributions to society, CSR purchasing and information dispatch), compliance, the environment, human rights and labor, product responsibility, and risk management. The content and goals were set down for each category.

In order to promote greater CSR awareness groupwide, for representative CSR actions implemented throughout the Group action goals were delineated in line with the three themes of the CSR Action Guidelines: close ties with the Earth, close ties with society, and a bridge to the next generation.

Going forward, MHI is committed to steadily executing the CSR Action Plan toward deepening and expanding the CSR actions of the entire MHI Group, to increase the level of trust its members receive from society.



Working Group meeting of female and younger employees



**Providing energy and environmental technologies to nations everywhere to help solve the global warming problem**

**Global warming: an issue feared to adversely impact the water, food and eco systems**

In August 2007 the World Meteorological Organization (WMO) reported that the year to date had been marked by "extreme weather and climate events" in numerous regions across the world, including extremely heavy precipitation, severe floods, and both heat and cold waves of exceptional strength. According to the WMO report, both January and April of 2007 had recorded the warmest global land surface temperatures in history.

These extreme weather events coincided with the projection issued earlier by the Intergovernmental Panel on Climate Change (IPCC), a United Nations body that monitors the causes and progress of global warming. In February 2007, in its "Fourth Assessment Report"

the IPCC had indicated that the warming of the Earth was unequivocal, and it stated that the cause of global warming is a rise in the density of greenhouse gases such as CO<sub>2</sub> and methane.

It is said that if greenhouse gases continue to increase, climate change will proceed on global scale to the extent that by the end of the 21st century the average world temperature will be anywhere from 1.1 to 6.4°C higher than at the end of the 20th century. Fears about that unless checked, global warming stands to have adverse impacts variously on the water, food and eco systems, in such manifestations as large-scale water shortages, natural calamities, severely affected agriculture, and the extinction of plant and animal species.

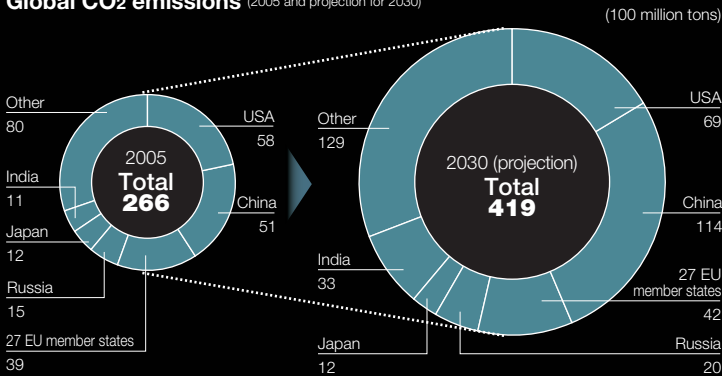
Meanwhile, however, global energy demand is expanding, particularly in countries marking phenomenal economic

growth such as China and India, with the result that global CO<sub>2</sub> emissions are increasing every year. Moreover, the expansion in energy demand is causing prices of fossil fuels to soar. As a consequence, in addition to environmental protection, today the international community faces a major challenge in securing stable and economical supplies of energy resources.

Global warming is thus a complexly intertwined issue that involves matters affecting the economy, energy and the environment, with the result that a fundamental solution cannot be expected from merely addressing the need to reduce the amount of greenhouse gas emissions. How to cut greenhouse gas emissions while maintaining economic growth is also slated to be a focus of discussions at the Hokkaido Toyako Summit in July 2008.

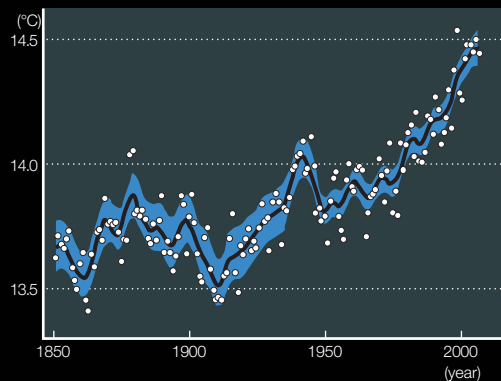
Within this context, MHI today is concentrating its efforts into the development of new energies and environmental technologies that will enable, in tandem, a stable energy supply and a reduction in environmental loads. MHI's target is set on contributing to the resolution of global warming, an issue that today has reached worldwide proportions.

**Global CO<sub>2</sub> emissions** (2005 and projection for 2030)



Source: International Energy Association (IEA) "World Energy Outlook"

**Change in average world temperature**



Source: Intergovernmental Panel on Climate Change (IPCC) "Fourth Assessment Report"

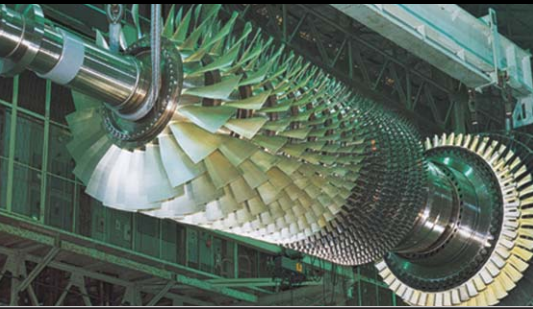
# Close ties with the Earth

**Safeguard an abundantly green Earth through environmental technologies and environmental awareness.**

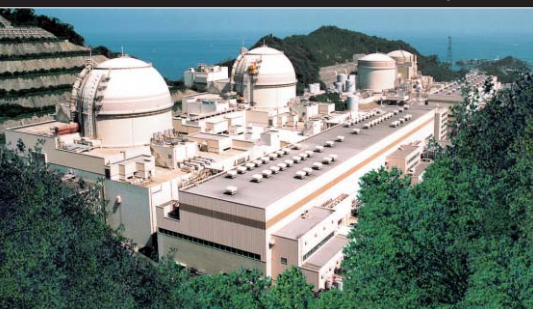


## Promoting diversification of energy resources and the recovery, storage and use of CO<sub>2</sub>

Achieving a stable supply of energy while simultaneously reducing environmental loads requires four initiatives: 1) curbing of energy consumption (energy conservation, efficiency enhancement); 2) improvement in energy production efficiency (reduced energy usage); 3) promotion of active use of low-carbon energy sources (nuclear power, renewable energy); 4) recovery, storage and usage.



M501G gas turbine



Ohi Power Station (nuclear power plant)



Wind farm (Texas, USA)



Solar farm (near Munich, Germany)



CO<sub>2</sub> recovery plant

MHI has products and technologies capable of contributing to all four of these areas.

In particular, with respect to improvement in energy production efficiency, MHI has developed gas turbine combined-cycle (GTCC) power generating plants, integrating gas and steam turbines, that achieve one of the world's highest levels of efficiency in thermal power generation. Today the company's GTCC systems are helping to reduce the environmental burden from the burning of fossil fuels – a generation mode currently meeting more than 65% of the world's power needs.

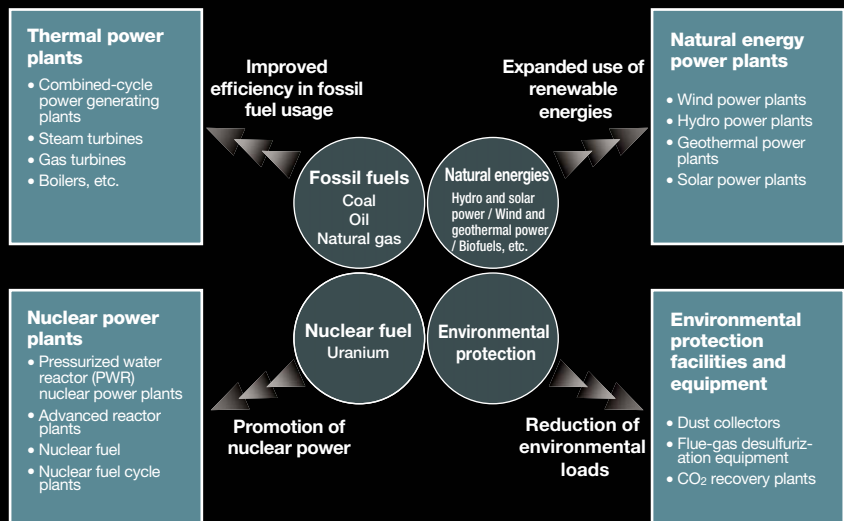
In the area of promoting usage of low-carbon energies, MHI, as one of the world's leading manufacturers of nuclear power plants, is involved in all aspects from the design, manufacture and construction of power generating facilities to provision of maintenance services and configuration of nuclear fuel cycles. The

company also supplies power generation facilities using natural energy sources – including solar, wind and geothermal power – to nations worldwide, thereby contributing to reduced dependency on fossil fuels.

In collaboration with The Kansai Electric Power Company, Inc., MHI has also developed and commercialized technologies for separating and recovering the CO<sub>2</sub> contained in flue-gas emissions from thermal power stations and petrochemical plants. The company is also opening up new avenues for using and storing CO<sub>2</sub>.

Going forward, MHI will strive for further improvements to its products and technologies of these kinds in order to contribute to resolving the problem of global warming through their widespread application, especially in the developing countries where energy consumption is on an ascendant curve.

## MHI products and technologies contributing to resolution of global warming



## CO<sub>2</sub> reduction with product usage (2007)

(1,000 tons)

Product		CO <sub>2</sub> reduction
Nuclear power plants		50,141.94
Thermal power plants	Conventional (thermal) power plants	29.00
	GTCC power plants	2,638.00
	Industrial power plants (biomass)	174.00
Geothermal power plants		274.00
Natural energy (wind power, solar battery)		327.64

\* For an explanation of the calculation method, refer to see p. 40.

# Supplying GTCC technology in China to realize higher power-generating efficiency and reduce environmental loads amid a steady rise in power demand

## Subsidiary established in Guangzhou in response to call by Chinese government

China, having achieved astonishing economic growth since the launch of its reform and open-door policy in 1978, today ranks second to the U.S. as the world's largest consumer of energy.

Until now, China, making use of its abundant reserves of coal, has relied on fossil-fuel power plants to meet some 80% of its power requirements. But in recent years the Chinese government, confronted by the country's rapidly growing energy demand and the increasing severity of global warming, has adopted a proactive policy toward shifting to natural gas as an energy resource and building power-generating facilities that impose a lighter burden on the environment.

In conjunction with this new orientation, in October 2002 the Chinese government held an open international tender for a natural-gas-fired combined-cycle power plant. A condition of the tender was the transfer of technology to a local Chinese manufacturer. MHI, in response to the Chinese government's call for a clean power-generating facility,



Signing of GTCC contract, March 2003

entered into a cooperative agreement with Dongfang Turbine Co., Ltd., a Sichuan-based subsidiary of Dongfang Electric Corporation, which is one of China's three largest manufacturers of heavy machinery, and in March 2003 succeeded in winning a bulk order for 10 large-scale natural-gas-fired gas turbine combined-cycle (GTCC) power plants—China's first.

This development was followed in July 2004 by the establishment of Mitsubishi Heavy Industries Dongfang Gas Turbine (Guangzhou) Co., Ltd., with MHI holding a 51% equity stake and Dongfang 49%. The new joint venture immediately launched activities targeting local manufacture of combustors and other high-temperature parts and the provision of local aftersale services.

Commencing with a GTCC system that went onstream at the Beijing No.3 Power Plant in January 2006, to date 10 natural-gas-fired GTCC plants have been completed. Plans now call for the construction of four more GTCC plants of the same type by 2009.



Huizhou Power Plant

## GTCC technology also applied for blast-furnace gas generated by steelworks

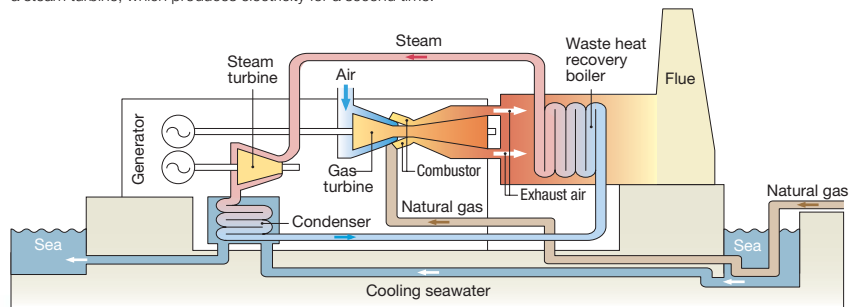
MHI's GTCC technologies are also actively being applied in China's steel industry.

As steel output has rapidly increased amid China's current construction boom, two major issues have come to the fore: making effective use of the blast-furnace gas (BFG) generated during the steel production process and achieving improvements in the environment. A solution to both of these problems is the BFG-fired GTCC plant, which takes the gas generated by blast furnaces and coke furnaces in steelworks and effectively uses it to produce electric power for the steelworks' own needs.

Because BFG has a lower calorific rating than natural gas, stable combustion of BFG-fired gas turbines requires sophisticated technology. MHI established proprietary technology in this field during

## GTCC plant configuration

First, electricity is produced by a gas turbine powered by burning natural gas or other fuel; second, the exhaust heat from the turbine is used to generate steam to power a steam turbine, which produces electricity for a second time.



## GTCC deliveries to China

Location	Qty.	Output	Startup(year)
Beijing*	1	400MW	2005
Qianwan*	3	1,100MW	2006-7
Huizhou*	3	1,100MW	2006-7
Shenzhen Eastern*	3	1,100MW	2006-7
Putian*	4	1,520MW	2008-9
Shagang (1)	2	100MW	2005-6
Shagang (2)	2	100MW	2008
Handan	2	100MW	2007
Anshan (1)	1	300MW	2007
Maanshan	1	150MW	2007
Lianyuan (1)	1	50MW	2007
Taiyuan	1	50MW	2008-9
Baotou	2	300MW	2008
Anshan (2)	1	150MW	2008
Qian'an	1	150MW	2010
Lianyuan (2)	2	100MW	2009-10

\* Natural-gas-fired GTCC plants (all others are blast-furnace-gas GTCC plants)

Close ties with  
**the Earth**

Safeguard an abundantly green Earth through environmental technologies and environmental awareness.







the 1980s, as illustrated by its development of BFG-dedicated combustors, and succeeded in developing a commercially viable BFG-fired GTCC plant. To date, the company has delivered numerous units to steelworks both in Japan and overseas. Chinese steelmakers too have given high marks to MHI's BFG-fired GTCC plants for their proven performance and stability, and have placed orders for a total of 16 units. As a result, today MHI boasts the No. 1 share in this area within both the global and Chinese markets.

Going forward, MHI will continue to promote the adoption of BFG-fired GTCC plants as its way of contributing to the efficient use of energy within China's steel industry and reduction of its environmental burden.

### Taking initiatives to educate local employees in product and labor safety

In technology transfers, it is important to pass on expertise and skills relating to product safety and simultaneously to educate employees on labor safety. As a practice, MHI receives employees of Dongfang Turbine and Mitsubishi Heavy Industries Dongfang Gas Turbine to undergo technical training for up to three months at its Takasago Machinery Works in Japan. Meanwhile, within local factories the company undertakes awareness-raising activities and conducts safety patrols.

In addition, to promote closer exchanges with the people of Guangzhou, where these bases are located, Mitsubishi Heavy Industries Dongfang Gas Turbine (Guangzhou) Co., Ltd partici-

### Expectations held toward MHI

#### To enable this state-of-the-art technology to spread throughout our country, we would like to see a more flexible response matching the needs of Chinese users

On August 22, 2007, the combined-cycle power-generating facility at the Magang New Area Power Station successfully passed, in its first attempt, a 168-hour full-load continuous running test. As its fuel, this facility burns a gas mixture consisting of blast-furnace gas generated during the steelmaking process and coke-oven gas (COG) produced during the coke production process. As such, it uses state-of-the-art technology in gas turbine combined cycles involving low-calorie fuel.

Operation of this power plant enabled Maanshan Iron & Steel to raise its rate of power self-sufficiency and at the same time save energy and make advances in reducing our environmental load. These achievements mesh with the steel industry development policy announced by the National Development and Reform Commission in July 2004, and serve as an important model of how the steel industry can conserve energy and lower its costs.

We have been deeply impressed by the diligent work attitude, serious commitment and strong sense of responsibility demonstrated by MHI staff. But, from the standpoint of a user, we would like to see them exercise a bit more flexibility and resolve problems that come up in the workplace more swiftly and rationally. We hope they will respond in a way matching the situation specific to China, so that this technology can be widely adopted and applied throughout the country.



**Tang Qiming**  
Maanshan Iron & Steel Co., Ltd.  
Plant manager

pates in area events and takes an active hand in cleanup drives around the factories and in making donations to nearby schools.



Providing product and labor safety training to local employees

### Concerning the Sichuan Earthquake

MHI offers its sincere condolences to all those who were affected by the powerful earthquake that struck China's Sichuan Province in May 2008. Dongfang Turbine, our tieup partner in large-scale gas turbine business, is based in the disaster zone and sustained serious damage. MHI is now active in support activities, including the provision of donations, in the hope that the disaster area will achieve recovery as quickly as possible.

**In Saudi Arabia, a country lacking sufficient water resources, MHI is building a large-scale plant to convert seawater to fresh water**

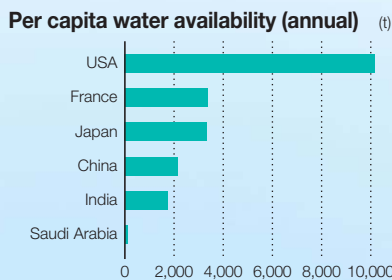
**Global water shortages becoming increasingly serious due to impact from climate change, etc.**

Water is indispensable both to the sustenance of human life and good health and to economic activities. Today, however, as a result of surging population growth and industrial expansion in the developing countries and droughts attributable to climate change, shortages of water resources are becoming increasingly severe throughout the world.

In the Kingdom of Saudi Arabia, water is an especially critical issue. The country's average annual rainfall is extremely low, averaging a mere 100 or so millimeters, which is less than 1/10th the rainfall volume of Japan. Moreover, today Saudi Arabia is witnessing a variety of problems including soaring population growth, rapid urbanization, sharp acceleration in industrial infrastructure building, and a lack of proper water and sewage systems. Compounding these

problems is the country's meager water availability per capita: roughly 1/28th the level of Japan and 1/19th the level of China. Due to these various factors, securing clean water for drinking and industrial use is a major challenge.

MHI today possesses outstanding expertise accumulated through its involvement in numerous plant projects to date, including desalination plants for removing salt from highly saline water and plants for converting seawater to fresh water. In



\* Compiled by MHI based on materials released by the Food and Agriculture Organization of the United Nations (FAO)

Saudi Arabia, in May 2007 MHI received an order for one of the world's largest desalination plants—a reverse osmosis (RO) facility with a capacity to produce 216,000 tons of drinking water per day from seawater. Plans call for the facility, which is to be located alongside a simultaneously ordered thermal power generation plant, to be completed by December 2010. Construction is now under way in the country's Shuqaiq district.

**World's first application of RO desalination technology, offering excellent efficiency with minimal CO<sub>2</sub> emissions, in a large-scale plant**

Besides RO, some other seawater conversion technologies exist for removing the salt content (3-5%) or harmful substances from seawater in order to produce drinking water or high-purity water for industrial use. These include distillation, a process whereby fresh water is made by distilling seawater, and electro dialysis, in which the components of seawater are electrolyzed.

Among the various desalination methods, the one that achieved commercial viability earliest on is multi-stage flash (MSF) distillation. To date, a large number of MSF plants have been constructed in Saudi Arabia, and MHI delivered many

# Close ties with Society

**Build a relationship of trust with society through proactive participation in society and trustworthy actions.**

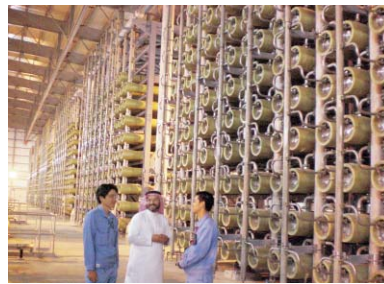




such plants during the 1980s. Today, however, because MSF uses non-ferrous metals in large quantities and material costs are surging, the costs involved in MSF distillation are soaring. Moreover, because heavy oil is used in large volumes as fuel to heat and distill the seawater, vast amounts of energy are consumed and large amounts of CO<sub>2</sub> are emitted. Reducing energy costs and easing the environmental burden have now become issues of growing concern.

In contrast, RO produces fresh water using a special semipermeable membrane that allows water to pass but not substances of low molecular weight such as salt. RO not only eliminates the need for fuel and related facilities for heating and distilling the seawater, it is also more energy-efficient than the distillation method and results in a significant reduction in CO<sub>2</sub> emissions during operation.

RO technology actually has a long history, and small-scale RO plants were already being created in the U.S. as long ago as the 1950s. Expanding applications of RO technology to large-scale plants proved quite difficult, however, due to problems such as the difficulty of properly treating seawater components (bacteria and microbes), which change with the seasons, and the resulting costs incurred



Reverse osmosis module racks

for water production. MHI then constructed a test plant within its own factory and developed technologies to improve the quality of filtered water and increase the seawater recovery ratio. In 1989, the company constructed a large-scale desalination plant for drinking water in Jeddah, Saudi Arabia, which successfully became the world's first large-scale RO plant to use RO technology to make fresh water at the substantial rate of 56,000 tons per day.

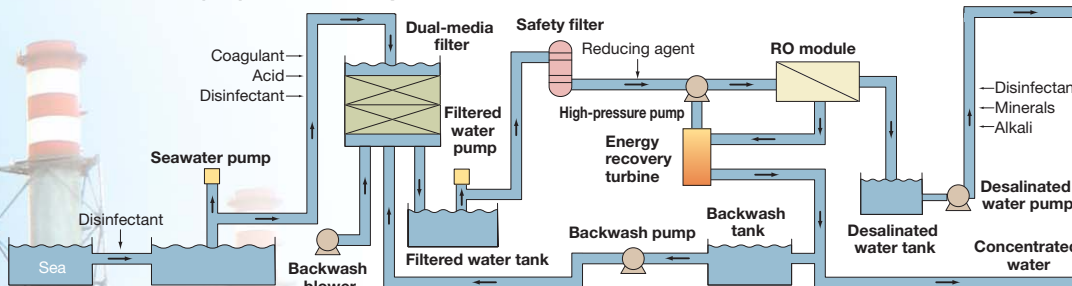
Based on the success of that first plant, MHI went on to build three more large-scale RO desalination plants in Saudi Arabia, all the while pursuing ongoing increases in water production volumes and the achievement of fresh water of ever higher quality. These efforts led to the receipt of the latest order for a plant capable of producing drinking water.

## Future challenges include applying RO to sewage and drainage and further easing environmental loads

In conjunction with plant construction, MHI first builds a test plant and undertakes meticulous checking of factors such as seasonal changes in seawater properties; it also performs reliability testing for approximately one month after the plant is completed. The company further provides training to the local staff who will operate and maintain the plant, offering them the requisite expertise and skills needed to ensure its safe operation.

MHI is also working to develop technologies to lighten environmental loads, for example by reducing energy consumption as well as the volume of chemicals used within the plant. In particular, in view of the potential impact the "concentrated seawater" generated during the desalination process may exert on the ecological system of nearby waters, going forward MHI aims to focus on establishing technology for recovering and reusing this by-product. In addition, the company looks to make further contributions to building the social infrastructure of Saudi Arabia through new applications of RO to the fields of sewage and drainage.

### Reverse osmosis (RO) desalination process



When significant pressure is applied to pumped seawater, the water molecules contained in the seawater are made to pass through the semipermeable membrane, thereby removing salt and harmful substances to result in fresh water. As the fresh water produced through this process is too pure to drink, minerals and alkali are added in the final step.

### Expectations held toward MHI

**By utilizing reliable technology, I hope that MHI will provide more energy efficient and environmentally friendly seawater desalination plants that will contribute to the growth of the countries of the Middle East and assist in their human and social development.**

Securing water resources has been one of the most important issues for the people of the Middle East since ancient times. In following up on its tradition of providing solutions to people the world over, MHI has worked with the countries of this region in order to alleviate the increasing potable water shortages. To this end, MHI has constructed and commissioned the Jeddah and Medina-Yanbu Seawater Reverse Osmosis ("SWRO") Desalination Plants in the Kingdom of Saudi Arabia in the 1990's, at the time the largest SWRO plants in the world. These plants have operated safely and reliably over the years, establishing MHI as a world leader in SWRO technology.

It is no secret that the countries of the Middle East will be spending huge amounts of money to meet their water requirements—with their high hopes for industrial growth and economic diversification, and rising populations they have little choice. What is also true is that SWRO plants like those

provided by MHI have grown to be used not only for human consumption but also for industrial purposes, the latter examples being the large SWRO facility of the Rabigh IWSP part the Petro Rabigh petrochemical complex and the various MHI wastewater treatment plants and recycling facilities.

Therefore, I would like to see leading technology companies like MHI expand their research and development efforts to continue to devise solutions to the water shortages that have impacted and will increasingly impact human development in many corners of the globe. It is a shared responsibility and we all must play a role.



**Majed Halawi**  
Rabigh Arabian Water & Electricity Co. (RAWEC)  
President



## To commemorate the 150th anniversary of the Nagasaki Shipyard & Machinery Works, MHI is participating in community contribution activities

The history of the Nagasaki Shipyard & Machinery Works started one and a half centuries ago in October 1857, when the Edo government began constructing Japan's first marine vessel repair plant in Akunoura-machi, Nagasaki City. Since then, Nagasaki Shipyard & Machinery Works has evolved as a birthplace of modern industry in Japan based on shipbuilding and machinery manufacturing.

Nagasaki Shipyard & Machinery Works held various commemorative ceremonies in 2007 celebrating the 150th year of its establishment and developed events and community contribution activities to express its appreciation to local residents.

### Donating 57 solar cell panels for tunnel lighting

As global warming intensifies, enterprises as well as public facilities and homes must more effectively utilize renewable energy sources.

As part of the events commemorating its 150th anniversary, the Nagasaki Shipyard & Machinery Works donated microcrystalline-Si tandem-type photovoltaic solar cells manufactured at our Isahaya Plant in Nagasaki to Nagasaki Prefecture. A total of 57 panels were installed along a prefectural road near Ohama tunnel (764m in length) to supply power for tunnel lighting.

### Technical Training Center opened to develop local industry

With members of the so-called baby-boomer generation, those born during the years following the Second World War, beginning to retire, there is concern about a shortage of shipbuilding engineers in Nagasaki Prefecture. To address this issue, MHI opened the Nagasaki Area Shipbuilding and Ship Machinery Industries Technical Training Center in the Koyagi Plant of the Nagasaki Shipyard & Machinery Works in cooperation with the national government, the prefecture and the city. The training center accepted 36 new employees from 12 shipyards in Nagasaki City to start a training program for about two months.

Due to warm reception outside the company for its expected contribution to revitalizing the local economy, we plan to continue the program.

### Free Masashi Sada concert and plant tour

Nagasaki Shipyard & Machinery Works holds the Tottotto Matsuri summer festival every year. In 2007, the festival included a free concert by Masashi Sada, a singer born in Nagasaki, and attracted a record crowd of about 55,000 people. In addition, 800 people chosen by lottery from over 2,000 applicants participated in a plant tour.



Commemorative ceremony held at the Glover House facing the Nagasaki Shipyard & Machinery Works



Donated 57 solar cell panels manufactured in the Isahaya Plant to Nagasaki Prefecture



Opening a Technical Training Center for new employees of local companies



Tottotto Matsuri summer festival held in August 2007 attracted about 55,000 people



Nagasaki Shipyard & Machinery Works is located at the Nagasaki Port, which is also popular tourist spot. The main plant is at right with the Koyagi Plant in the background.





The Fifth MHI Charity Concert held at the Main Hall of the Takasago City Culture Hall

## The Takasago Machinery Works in Hyogo plans and holds educational, welfare and cultural events

Since its establishment in 1962, Takasago Machinery Works, which is based in Takasago City, Hyogo, has evolved as a plant dedicated to constructing large rotating machines, including gas turbines for power generation.

Based on MHI's policy on social contribution activities, "Live together with local communities and contribute to their development," the works organizes a variety of events, including support for future generations and the promotion of community wellbeing, arts and culture.

### MHI Charity Concert: Contributing to welfare and culture

Since May 2003, Takasago Machinery Works has been co-hosting MHI Charity Concerts with the Takasago City Facilities Utilization Promotion Foundation. The fifth concert, held in July 2007, featured singer Hiromi Iwasaki and pianist Takashi Obara and drew a full-house audience of over 1,000.

All proceeds, along with any other money raised from the concert, were donated to the Takasago City "Zen-I" Bank to support welfare and cultural projects. "Zen-I" (good will) banks are non-profit organizations established to serve as a bridge between companies or individuals wishing to make donations and welfare organizations.

### Science classes and a picture competition for local children

To inspire interest in manufacturing, science and technology among children, every year we organize Science Summer Schools in cooperation with the Takasago City Board of Education during the summer holidays. In 2007, 120 local elementary school children chosen by lottery participated in a class entitled, "Be a Metal Doctor!" and enjoyed experimenting with shape memory and gold plating.

The Takasago Pictures Competition for supporting the healthy emotional development of children commemorated its 15th year as a very popular event. In 2007, the contest was held under the theme, "My most precious thing," and attracted 3,460 entries. The winning entries were displayed at local shopping centers and on trains.

### Charity bazaar held alongside Takasago Summer Festival

A charity bazaar is held every year during the popular MHI Takasago Summer Festival with goods collected from employees. As in the case of the charity concert, proceeds are donated to the Takasago City "Zen-I" Bank.



Science experiment using metal at the Science Summer School in 2007



Takasago Pictures Competition attracted 3,460 entries



Charity Bazaar held during a summer festival. Proceeds are donated to the Takasago City "Zen-I" Bank.

Close ties with  
**Society**  
Build a relationship of trust  
with society through proactive participation  
in society and trustworthy actions.

# A bridge to the next Generation

**Contribute to the cultivation of human resources who can shoulder responsibility in the next generation through technologies that can realize dreams.**

## **MHI organizes science classes in elementary and junior high schools to communicate the appeal of manufacturing**

### **Contributing as a manufacturing company to reinvigorating participation in science in schools**

In order to communicate the appeal of science and technology to children and nurture their interest in manufacturing, MHI organizes hands-on summer schools every year at its works nationwide in Japan. We also operate handicraft and experiment classes at the Mitsubishi Minatomirai Industrial Museum, which opened in 1994.

In recent years, however, children have had fewer and fewer opportunities to get involved with science in their schools. To address this issue, the company launched a new initiative in October 2007 in which MHI employees visit elementary and junior high schools to lead science classes.

### **Children work on and present “robots that make the town smile”**

The first science class was held for 5th and 6th graders at a primary school in Shizuoka City, October 18 and 19, 2007. The curriculum, using a communication robot named *wakamaru* developed by

MHI, has proved popular among children and school officials and has also been featured on local TV.

MHI subsequently improved the content of the science class program with the cooperation of the Japan Association for Educational Innovation (JAE), an incorporated nonprofit that is entrusted with the Regionally Autonomous and Private Sector-based Career Education Project\* by the Ministry of Economy, Trade and Industry. The company jointly planned and implemented a five-day curriculum with JAE at Takatsuki 6th Junior High School, Osaka Nonaka Elementary School and Osaka Kamiminami Junior High School. Under this program, children worked on and presented new robots under the theme, “Let’s develop robots that fill the town with smiles!” The



Science class at Osaka Nonaka Elementary School

goal was to encourage them to recognize their connection with society and nurture their ability to realize dreams through the joy of creation.

The children were intrigued and tackled the high-level task of coming up with concepts for robots that would be useful for society. Many unique ideas were presented, including an environment-conscious robot that sprinkled water around the town to fight global warming.

### **Science class curriculum** (Nonaka Elementary School)

#### **1st day: Learning about the Job**

MHI employee explains the company's business and jobs.

#### **2nd day: Planning**

Planning for “robots that makes the town smile.”

#### **3rd day: Planning**

Preparing to present ideas on “robots that makes the town smile.”

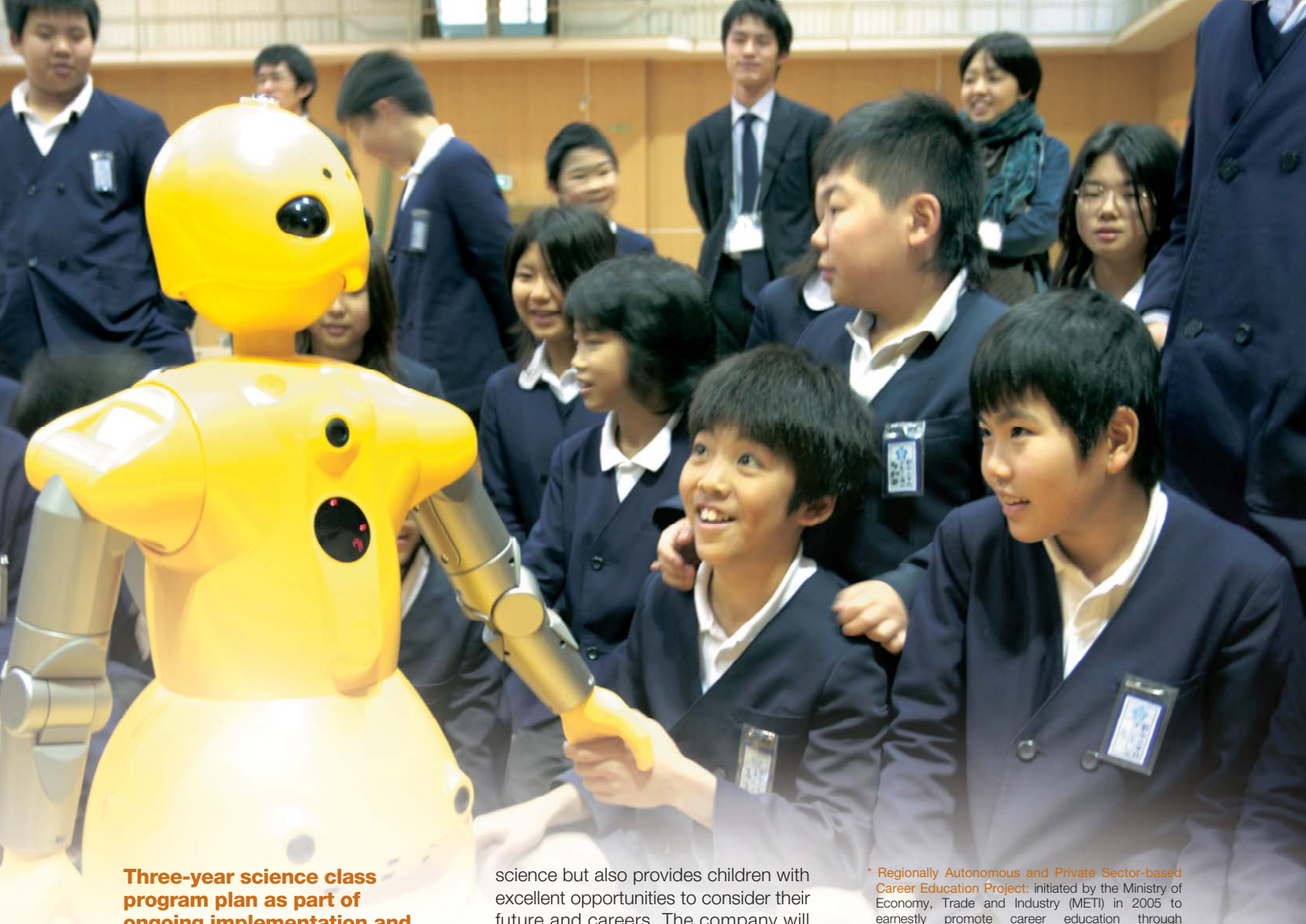
#### **4th day: Presentation**

Groups present their ideas.

#### **5th day: Development of Dreams-come-true Plan**

Students describe their dreams for the future based on what they learned during the four days and develop a plan to realize their dreams.





**Three-year science class program plan as part of ongoing implementation and improvement of activities**

To continue implementing and improving this education support program, the company developed in April 2008 the Three-year Plan to Support Science Education at Schools up to 2010. We decided to implement the program at our works across the country in 2008, the first year of the plan, and set a target of planning and implementing distinctive lessons utilizing products and technologies unique to individual works for the next two years.

To further enhance and improve the curriculum, we organized a stakeholder meeting on March 24 to obtain feedback and requests from children who had attended the class as well as external experts (see p. 19).

We believe that directly passing on the “heart of Japanese manufacturing” and the “arts of science and technology” to children not only stimulates interest in



Children fascinated by wakamaru

science but also provides children with excellent opportunities to consider their future and careers. The company will continue to deploy unique science classes developed by MHI in elementary and junior high schools across the country to contribute to the nurturing of the next generation.

\* **Regionally Autonomous and Private Sector-based Career Education Project:** initiated by the Ministry of Economy, Trade and Industry (METI) in 2005 to earnestly promote career education through business-academia collaborations in all regions in Japan

**Expectations held toward MHI**

**I want opportunities for children to learn not only about robots but also about technologies and products that help in our daily lives**



**Ms. Shigeko Harada**  
Teacher,  
Osaka Nonaka  
Elementary School

Because some children believe working is easier than studying, it was very useful for them to listen to people who are actually involved in developing robots. Learning that creating a single product requires so many people and procedures, children were able to gain understanding about human relationships and how studying in school will help them in the future.

Next time, I would like to see opportunities for children to also learn about technologies and products that help in our daily lives.

**I'd like to emphasize the significance of learning in collaboration with business enterprises**



**Mr. Shinichi Aoki**  
Teacher,  
Osaka Kamiminami  
Junior High School

It was an amazing experience for the students to learn there were jobs like this and to think about how they could do these types of jobs in the future while looking at and touching a robot. I expect this experience to stimulate their thirst for knowledge and aspirations for the future.

I would like to see an ongoing partnership because I intend to also emphasize to parents, and other community residents, the significance of learning in collaboration with corporations.

## Stakeholder Meeting

### Bringing MHI's unique science classes to elementary and junior high schools across the country

MHI plans to implement the science class program at its works nationwide starting in 2008.

How could we further improve this project to strengthen education for the future generations?

We invited children from Osaka Nonaka Elementary School who attended the science class and experts in next-generation education to share their feedback and recommendations.

Listening to children who attended the science class

### Realizing the fun of manufacturing, I am now thinking about my future career.



Sixth graders  
(during the science class) at Osaka  
Nonaka Elementary School

**Makoto** (front right)

**Masaki** (back right)

**Yuri** (front left)

**Kaori** (back left)

**Mr. Kenji Kobayashi**

*Japan Association for Educational  
Innovation (incorporated  
nonprofit organization)*

**Kobayashi:** How was the science class?

**Kaori:** Finding out that the motor I learned about in science class at school is also used in robots, I felt I was learning something that would be useful when I grew up.

**Masaki:** Knowing that there is a job to create robots, I started to think about my future, although somewhat vaguely. Making real robots would be great.

**Makoto:** I also felt that studying is connected with society. And the experiment was so much fun that our regular science class won't seem good enough anymore.

**Yuri:** We had a lot of trouble creating something through group discussion, but learned the importance of teamwork.

**Kobayashi:** It has recently been said that science seems farther and farther away from children. Why do you think this is?

**Makoto:** Maybe there are too many things to learn.

**Masaki:** Yes, this makes test scores lower, which is in turn discouraging. This is a vicious circle.

**Kaori:** Perhaps it would be interesting to take apart machines that happen to be around us and see what's inside.

**Kobayashi:** Did the class



change how you look at working?

**Makoto:** I learned that many people take a long time to create even one thing.

**Masaki:** I thought working was hard and nothing more, but now I feel that creating something new is fun.

**Yuri:** I thought adults could easily do anything. I was surprised to find out that they work while talking together like we did.

**Kobayashi:** Finally, what do you expect from adults?

**Makoto:** Stop global warming!

I hope to join a baseball club in junior high but I'm afraid of heat stroke.

**Masaki:** I am also a little afraid of environmental problems, such as desertification and deforestation. They say there is less oil, too.

**Kaori:** Please create an environment where we, the next generation, can live.

**Yuri:** Stop driving cars and walk or use bicycles instead to save energy.





## Dialogue with external experts

# Think about the unique education a manufacturing company can provide and then develop standard methods and curricula

The MHI science class was positively evaluated by children who attended the class and school officials. We held a dialogue session on March 24, 2008, to gather objective opinions on how we could improve the program in fiscal 2008. Mr. Hideto Kawakita, who has detailed expertise of CSR and is also involved in next-generation education, and Ms. Ayako Kakuno of JAE joined us in discussing achievements in 2007 and challenges for the future.



## Understanding the difficulty of manufacturing will increase desire to learn

**Iida:** Based on the achievements of the activities in fiscal 2007, MHI plans to implement the science class program at all works in fiscal 2008.

**Kakuno:** At first, I thought MHI products might be a little too difficult for children to understand. However, when I talked to children showing slides of product drawings and photos, explaining, "MHI products are used here, too," the reactions from children, often with a sparkle in their eyes, were better than I expected, such as, "Do you make this, too?"

**Kawakita:** The fact the company does not make general consumer goods may be an advantage in communicating the importance of hidden technologies. You can emphasize and boast to children about the beauty and fun of manufacturing, saying we use this technology for sturdy and fast ships, this technology for resilient bridges and so on. The fun of working will be communicated not only by amusing children with entertaining lectures but also by opening their eyes to the great things grown-ups can do.

**Nishimoto:** The company's activities may still be at the level of setting a stage for children to develop an interest in science. We are not yet demonstrating how MHI's products are helping in the world.

**Kakuno:** In order to communicate what grown-ups can do, I think it is important not only to provide textbook-type explanations of excellent technologies and products but to also share the drama of working adults, including stories of overcoming failures and working together to succeed after going through problems.

**Kawakita:** I think one of the most important things in science class is to understand how the things learned from the class are connected to society.

**Hiura:** I also heard that from a teacher at the Osaka Kamiminami Junior High School. She said children think everything can be done easily. We should tell them something like, "Look at the automatic vending machine, it is performing massive calculations inside." This will eventually increase their desire to learn about mathematics or science. I guess we also need to keep this in mind.



**Mr. Hideto Kawakita**

*CEO of the International Institute for Human, Organization and the Earth (IIHOE)*

Born in Osaka in 1964, graduated from Kyoto University and joined Recruit Co., Ltd. in 1987. He left Recruit in 1991, and after serving as the representative of Operation Raleigh Japan, an NGO for international youth exchange, he established IIHOE in 1994. He is involved in activities to promote CSR and environmental/social communication conducted by NPOs and enterprises.



**Ms. Ayako Kakuno**

*Coordinator of the School Education Division, Japan Association for Educational Innovation (JAE)*

After completing studies at the graduate school of Kyoto University, she joined the UFJ Research Institute and was involved in consulting in the environmental and educational fields. Later in 2005 she joined JAE. Currently, she is involved in career education as a coordinator of the School Education Division. Her vision is to simultaneously pursue self and social fulfillment.

A bridge to the  
**next Generation**

Contribute to the cultivation of human resources who can shoulder responsibility in the next generation through technologies that can realize dreams.



## Outline of the three-year plan to support science education at schools

### FY 2008

**1 Implement a science class program for elementary schools at all works using real-world products, including *wakamaru*.**

(Identify needs at schools, learn methods for conducting science classes)

**2 Develop science teaching materials at individual works**

(Develop teaching materials for science class program utilizing products and technologies from respective works)

### FY 2009

**1 Implement a science class program for elementary schools at all works using products and technologies of respective works**

(Implement a science class program using teaching materials developed by respective works)

**2 Improve teaching materials for the science class program**

(Improve content based on the reaction of children and feedback from school officials)

### FY 2010

**1 Continue implementation of the science class program for elementary school using products and technologies of respective works**

(Organize science classes based on the results of activities in fiscal 2009 with achievements and required improvements reflected in the curriculum)

**2 Deliberate implementation of the science class program for junior high schools**

(Examine teaching materials and operations for implementing the science class program for junior high schools)

## Introducing environmental protection as a common language for environment and education

**Iida:** In addition to sparking interest in science, we included learning the importance of teamwork and recognizing connections with society in this year's curriculum. Are these areas very important for teachers?

**Kakuno:** In reality, only a few teachers deeply appreciate the importance of lectures in collaboration with businesses. After an actual lecture, however, many teachers say they recognized the importance of sessions that help students see the connection with their future or society.

**Iida:** Schools, however, have their own guidelines for education. The question is, how much should we take this into consideration?



**Kawakita:** Certain integration with school instruction may be advisable to deepen children's understanding. But I think MHI should develop classes that only MHI can create, instead of sticking too closely to educational guidelines. As a manufacturing company, you can definitely achieve better communication when you maintain your focus on classes for experiencing the importance of manufacturing. Entities like JAE have a major role to play here for enterprises and schools to share a common language.

**Iida:** In terms of a common language, as

I listened to the children, I thought that environmental protection could be one option.

**Kawakita:** You're right. It is very important for a company working on reducing environmental burdens to communicate the importance of environmental protection to children. In the context of teaching how science is connected with society, it is important to not only share information on how the company is reducing its environmental burden but to also communicate what must be done to reduce the environmental burden of society as a whole. This is also essential in terms of Japan's mission to reduce CO<sub>2</sub> emissions. While experiencing the fun of devising ways to create something new, children will learn the importance of creating ways to reduce environmental burdens before becoming a full-fledged member of society.

**Hiura:** Company members working on projects with high hopes and through trial and error always ask themselves how the projects will serve society and what impact they will have. Simply talking about this might actually constitute science education.

**Kawakita:** It would be interesting for children to know how product-related environmental burdens were different, say 10 years ago, as compared with today and what needed to be done to achieve this progress.

## Building a cooperative framework inside and outside the company to enrich program content

**Nishimoto:** Takasago Machinery Works holds experiment-oriented science classes called Science Summer School for 3rd to 6th graders in elementary school during their summer holidays. Company members who serve as lecturers are dressed like scientists and also enjoy the program. Children certainly sense the adults' excitement. I feel it is important for us to have fun together.

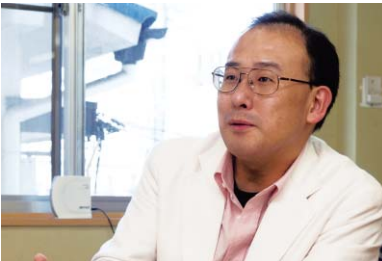
**Hiura:** After conducting science classes using *wakamaru*, I also felt this kind of activity requires enthusiasm. Whenever I was to talk about a difficult subject, I learned by thinking about how I can help



children understand. Directly experiencing the children's response also boosted my motivation. I hope others develop this same enthusiasm in their own works for implementing science class programs at each works.

**Kawakita:** It is important that the company and individual works establish a support framework. It may be advisable to assign three to four persons at each works to play a central role in the activities and spread the enthusiasm. It may be also a good idea to create a "Career Education Meister" system.

**Kakuno:** Some companies that we assist assigned younger workers to do the lectures. This provided an added benefit for employee training, as they learned to cooperate with different departments in the process of preparing



teaching materials and increased their motivation by seeing their job from a different point of view.

**Nishimoto:** I heard that some companies asked retired members to do the lectures. While lecturers who are closer in age to the students may be more approachable, older lecturers may be better in maintaining a proper balance in the classroom.

**Kakuno:** That's right. However, experienced workers tend to give away the correct answer too quickly. I would hope that either new staff or retired members would help children focus on a process in which they think on their own and come to their own conclusions.

**Kawakita:** I hope you to take this opportu-



nity to develop a basic concept and standard methods for MHI science classes. I also recommend exploring partnerships for science education in addition to the efforts of company employees. There are many possibilities, such as requesting the involvement of local elementary school teachers and developing partnerships with groups already involved in community science education.

**Iida:** For this purpose, we would like to ask Ms. kakuno to identify classroom needs and to offer advice from an objective point of view. If we worked alone, we would only do things from the perspective of a company. A third party may be able to identify more resources from schools or from companies for use in science classes. I expect to see this kind of coordination.

**Kakuno:** It is definitely important for companies and NPOs to learn from each other to enrich the content.

**Nishimoto:** We at Takasago Machinery Works have offered our own education support activities. Today's discussion made me realize that we need to think more about helping children understand the connection with society and to their own personal development. We will also provide more opportunities for collecting evaluations and feedback from those outside the company.

**Kakuno:** I suppose it is difficult to move a major company like MHI, but incremental steps forward have a great impact. Since it operates business globally, the company can extend its impact across the world and develop this into a major movement that makes a difference for the global environment. We will also collaborate with the company to the best of our ability to maintain this momentum.

**Iida:** Thank you very much for joining us today.

## Participants from MHI



**Kenji Nishimoto**  
*Manager, General Affairs Section,  
 General Affairs Department,  
 Takasago Machinery Works*



**Ryota Hiura**  
*Acting Manager, Mechatronic  
 System Designing Section, Advanced Technology  
 & Mechanical Systems Department,  
 Kobe Shipyard & Machinery Works*



**Keiichi Iida**  
*Manager, Corporate Social Responsibility  
 Department, Head Office*

A bridge to the  
**next Generation**

Contribute to the cultivation of human resources who can shoulder responsibility in the next generation through technologies that can realize dreams.



## CSR Action Plans

### Medium-term targets and action plans for fiscal 2008 to 2010

MHI developed medium-term CSR targets for a three-year period (fiscal 2008 to 2010) as well as action plans for each fiscal year to expand CSR management across the entire Group. The CSR Committee, chaired by the President, reviews the progress of activities every half term to promote strategic and comprehensive CSR initiatives across the Group.

Area	Priority item (responsibility)	Current issues
CSR Promotion	Broadened CSR awareness (CSR Committee / CSR Department)	Accelerating activities involving the entire company and Group companies and broadening CSR awareness to encompass employees at all Group companies
	Socially beneficial activities (General Affairs Department / CSR Department)	Intensity of activities varies by headquarters, division and works, and by Group companies
	Strengthening information dissemination (Corporate Communication Department) 1. Enhancement of brand value concerning the environment 2. Enhancement of company image 3. Promotion of IR activities 4. Improvement of the Mitsubishi Minatomirai Industrial Museum	1. Gain wider recognition and improve evaluation of the company's environmental protection efforts 2. Gain wider recognition of the company's corporate activities and strengthen dissemination of information to society 3. Enhance our presence in the eyes of individual investors 4. Increase number of visitors
	CSR procurement (Material Department)	1. Strengthening PDCA cycle for CSR procurement 2. Response to environmental awareness, including RoHS Directive and REACH Regulation 3. Continued reduction of energy use in transportation
Compliance	Thorough compliance (Compliance Committee)	1. Thoroughly establish integrated management of MHI Group compliance case studies 2. Further enrich compliance-related training
	Order compliance (Order Compliance Committee)	Further enhancement of order compliance activities across the entire Group
	Compliance with the Construction Business Act (Construction Business Act Compliance Committee)	Improvement of compliance level of Group companies
	Compliance with export-related regulations (Export-related Regulations Monitoring Committee)	1. Raising employee knowledge of legal issues 2. Establishment of compliance structure for Group companies
Environment	Reduced CO <sub>2</sub> emissions (Environment Committee)	Increased CO <sub>2</sub> emissions due to expanded production
	Group environmental management (Environment Committee)	Establishment of a structure for unified Group efforts
Human rights and labor	Raising awareness of human rights (Committee for Raising Awareness of Human Rights)	Promoting understanding of human rights issues and preventing sexual and power harassment
	Promote employment of the handicapped (Committee for Promoting the Employment of the Handicapped)	Maintenance and expansion of employment level exceeding legal mandate (1.8%) (current level: 1.81% as of November 2007)
	Creating a better work place (Personnel Department) 1. Enriched education 2. Strengthening mental health 3. Utilization of retired employees 4. Nurturing the next generation	1. Horizontal deployment of advanced training program 2. Reduced number of medical leaves due to mental health disorders 3. Increased rehiring rate (from current 59%) 4. Enhanced support for nurturing the next generation balanced with actual work responsibilities (prepare for second action plan)
Product responsibility	Ensuring quality and safety of nuclear business (Managing Board for Innovation in Nuclear Business)	Further enhancing activities to improve level of safety 1. Establish QMS unique to MHI from the perspective of domestic and overseas businesses 2. Contribute to preventive maintenance of plants for power companies 3. Thorough compliance and energizing information dissemination from the perspective of accountability
	Product safety (Legal Department / Production System Innovation Planning Department)	Enhancement and establishment of product safety system across the company
Risk management	Risk assessment and management (CSR Department)	1. Further strengthening of PDCA cycle for risk countermeasures in individual departments 2. Identification of potential risks and thorough implementation of proactive measures in each department 3. Reinforcement of efforts to address risks in Group companies

	Medium-term targets (FY2008–2010)	Action plans for FY2008
	<ol style="list-style-type: none"> <li>Broadened CSR awareness across the Group and promote self-directed activities of individual departments</li> <li>Selection and implementation of unified activity themes for the entire Group (representative CSR activities) based on the CSR Action Guidelines</li> </ol>	<ol style="list-style-type: none"> <li>Distribute CSR report (with additional Group information) to all employees of domestic Group companies</li> <li>Multilevel dialogues, broaden CSR awareness through CSR training program and expand it to Group companies</li> <li>Implement representative CSR activities across the entire Group</li> </ol>
	<ol style="list-style-type: none"> <li>Energizing activities in line with the social contribution policy of the entire company (community contribution and nurturing the next generation) and instilling a sense of unity across the Group</li> <li>Raising the level of all activities by exchanging information among departments and energizing activities of Group companies</li> <li>Building a structure to support participation of employees in social contribution activities</li> </ol>	<ol style="list-style-type: none"> <li>Identify issues in individual locations and explore countermeasures</li> <li>Promote representative CSR activities (encourage community contribution activities at each Group company at least once a year)</li> </ol>
	<ol style="list-style-type: none"> <li>Gain recognition and improve evaluation for the company's environmental protection efforts</li> <li>Promote PR to improve corporate image</li> <li>Increase the number of shareholders who own company stock for medium to long-term periods (fans)</li> <li>Attract 140,000 visitors a year</li> </ol>	<ol style="list-style-type: none"> <li>Benchmark analysis of other companies</li> <li>Disseminate information based on a unified corporate image in line with the business strategy</li> <li>Continue hosting plant tours for individual shareholders (more than twice a year); Events for individual investors (at least once a year)</li> <li>Renovate facilities (introduce multiplex facilities at the 3D theater, improve CAD), prepare to improve hands-on user experience corner</li> </ol>
	<ol style="list-style-type: none"> <li>Penetration of CSR Procurement Guidelines and strengthened PDCA cycle</li> <li>Response to REACH Regulation and others</li> <li>Deepened activities for further reducing energy use in transportation</li> </ol>	<ol style="list-style-type: none"> <li>Develop CSR Procurement Guidelines and introduce CSR self-evaluation criteria for suppliers</li> <li>Establish policy in response to REACH Regulation and others</li> <li>Reduce energy use in transportation (96 in unit energy consumption indexed against 2006 as 100)</li> </ol>
	<ol style="list-style-type: none"> <li>Establishment of promotion system across the Group and unified activity content</li> <li>Implementation of compliance training that is well-developed in terms of both awareness and knowledge</li> </ol>	<ol style="list-style-type: none"> <li>Thoroughly implement activities of individual departments and strengthen the structure of the entire Group</li> <li>Raise visibility of dedicated contact point; reflect compiled results of compliance challenges into various measures</li> <li>Effectively improve and continue implementation of compliance promotion training program</li> </ol>
	Maintaining zero violations of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (continued order compliance activities)	Expand monitoring subjects and further reinforce education and training activities for Group companies
	Strengthened compliance system of Group companies	Implement on-site checking, internal audits in Group companies and e-learning (more than 100 participants)
	<ol style="list-style-type: none"> <li>Further enhanced export management at individual departments and training experts in export management</li> <li>Further strengthening effective export management by Group companies</li> </ol>	<ol style="list-style-type: none"> <li>Employee education (participation in e-learning and understanding of corporate rules)</li> <li>Conduct audits by primary supervising department</li> </ol>
	<p>Ensuring achievement of the voluntary reduction target for CO<sub>2</sub> emissions</p> <ol style="list-style-type: none"> <li>Visualization of energy usage and implementation of energy conservation by eliminating waste</li> <li>Obtaining necessary emission credits and systematically introducing energy-saving equipment</li> <li>Installation of additional photovoltaic facilities to bring cumulative total across the company to more than 2,000kW</li> </ol>	<ol style="list-style-type: none"> <li>Promote introduction of energy-saving equipment</li> <li>Purchase and manage emission credits (about 110,000 tons)</li> <li>Introduce additional 800kW photovoltaic facility (Isahaya Plant)</li> </ol>
	<ol style="list-style-type: none"> <li>Completing introduction of environmental ISO in Group companies in Japan</li> <li>Deployment of environmental management activities by the entire MHI Group acting as one</li> <li>Implementation of regular audits of Group companies and round-table conferences</li> </ol>	<ol style="list-style-type: none"> <li>More than seven Group companies complete their initial acquisition of ISO certification</li> <li>Set and announce common targets for Group companies</li> <li>Environmental conference with companies that have acquired certification independently</li> </ol>
	Broaden understanding and awareness regarding human right issues across the company and implement initiatives to prevent sexual and power harassment	The committee and the respective committees of each works hold annual meetings
	Maintenance and expansion of employment level exceeding legal mandate, and promotion of systematic employment by individual departments	Aggressive recruitment activities toward achieving employment ratio of 2% (monthly review of activity status) and enlightenment activities
	<ol style="list-style-type: none"> <li>Further enhance the environment for carefully nurturing valuable human resources</li> <li>Implementation of effective measures, starting from the prevention of mental health disorders to supporting employees in returning to work</li> <li>Further increasing the rehiring rate (more than 60%)</li> <li>Maintaining Kurumin (next generation nurturing support) certification mark</li> </ol>	<ol style="list-style-type: none"> <li>Restructure (improve) company-wide training system and convene annual meeting of managers in charge of training</li> <li>Establish and efficiently operate system to effectively support employees returning to work; assess and improve mental health measures</li> <li>Review rehiring rate and examine treatment of rehired employees</li> <li>Implement support for nurturing the next generation in balance with actual working responsibilities</li> </ol>
	<ol style="list-style-type: none"> <li>Establishment of an integrated QMS across the headquarters and works and construction of an autonomous framework</li> <li>Further improvement of plant reliability</li> <li>Nurturing a climate that does not allow compliance violations and earning the public trust through ongoing dissemination of information</li> </ol>	<ol style="list-style-type: none"> <li>Establish a quality assurance plan with overseas businesses in mind</li> <li>Share maintenance information through PWR Business Liaison Conference</li> <li>Further strengthen the monitoring functions</li> <li>Communicate information on improvement activities through the website</li> </ol>
	<ol style="list-style-type: none"> <li>Utilization, spread and deployment of accomplishments related to product safety activities (including improved instruction manuals)</li> <li>Further reinforcement of product safety system</li> </ol>	<ol style="list-style-type: none"> <li>Continue responses in manufacturing based on risk assessment that complies with international standards</li> <li>Strengthen and enhance product safety management system</li> </ol>
	<ol style="list-style-type: none"> <li>Further strengthening the PDCA cycle for autonomous risk management at the company as well as domestic and overseas Group companies</li> <li>Implementation of risk assessment once every two years</li> <li>Thoroughly implementing company-wide horizontal deployment of advanced cases using database</li> </ol>	<ol style="list-style-type: none"> <li>Following up risk reduction activities using risk measure description sheet at individual departments and domestic and overseas Group companies</li> <li>Develop risk management database</li> </ol>

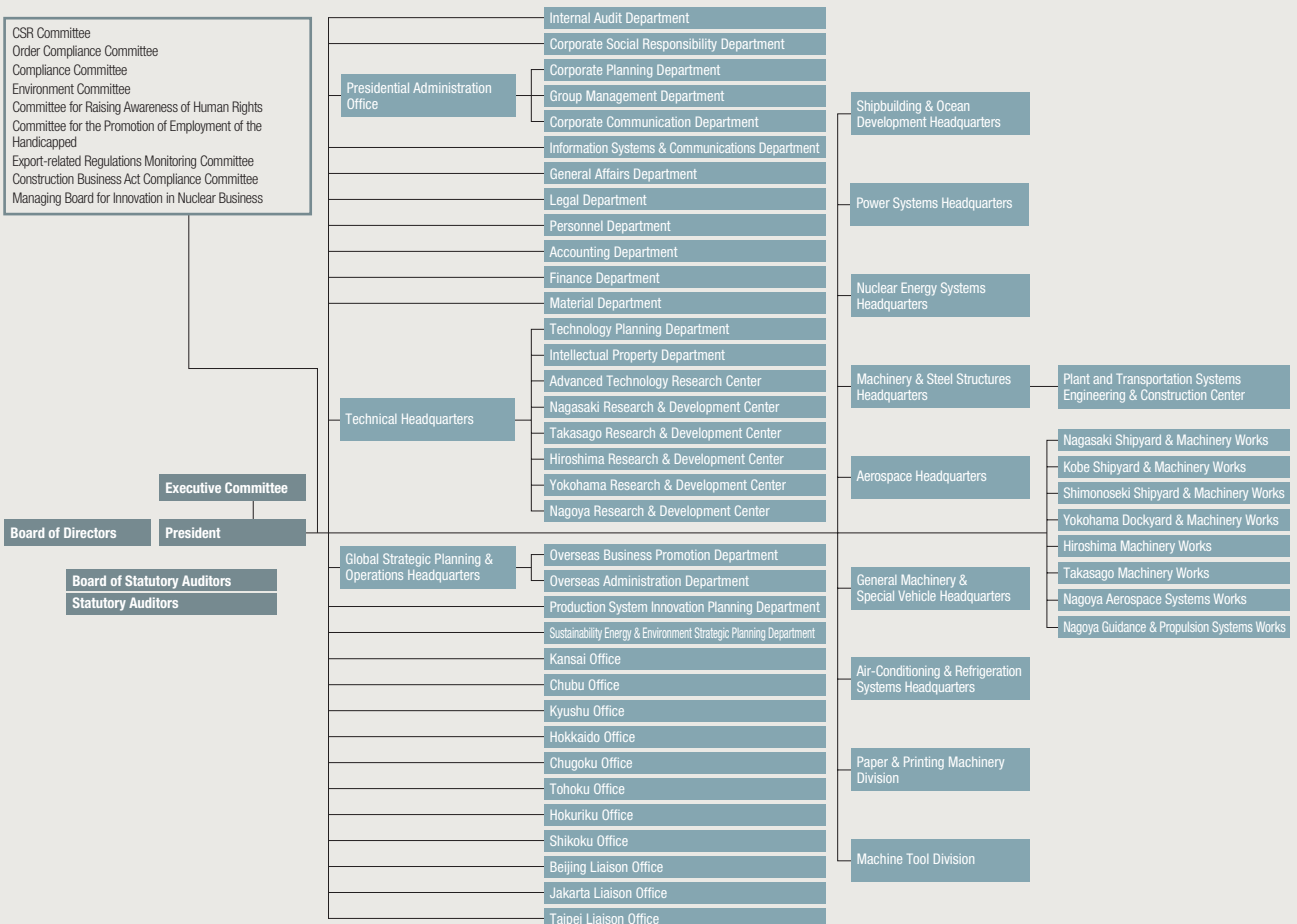


## Responsibilities and Actions of MHI

# Management

In the course of providing products that support social and economic infrastructures on a global scale, MHI makes every effort to fulfill its social responsibility as a corporation by strengthening and enhancing its corporate governance, internal controls and CSR efforts while acting in full compliance with prevailing laws, rules and social norms in addition to promoting fair and sound management.

**Organization Chart** (as of April 1, 2008)



# Corporate Governance

In its quest to continuously develop its business operations and fulfill its social responsibilities, MHI is reforming its management structure while promoting fair and sound management rooted in complete legal compliance. The company is diligently enhancing transparency by providing timely, accurate information to both shareholders and society at large.

## Current Status of Corporate Governance and Internal Controls

### Strengthening the oversight functions of the Board of Directors through such measures as appointing outside directors

The Board of Directors makes important management decisions and oversees the execution of business operations.

In June 2005, MHI implemented reforms that included streamlining the Board of Directors, while increasing the number of outside directors, shortening the term of office, and introducing an Executive Officer System. An additional outside director was subsequently appointed in June 2007. MHI is strengthening management oversight and auditing functions by appointing outside officers; currently, 3 of the company's 19 directors, and 3 of its 5 statutory auditors are from outside MHI.

MHI has also established an Executive Committee to serve as a forum for discussing important matters related to business execution. This allows for a more cohesive approach in terms of discussions as part of the operational execution framework centered on the

President, and consequently leads to more effective management decisions and business execution.

The Board of Statutory Auditors monitors executive actions of directors. In accordance with auditing policy and the allocation of duties determined by the Board of Statutory Auditors, statutory auditors attend meetings of the Board of Directors, the Executive Committee and other key meetings related to business planning, enabling them to accurately assess and monitor the status of management execution in a timely manner. Statutory auditors also audit the execution of director duties by conducting spot checks and verifying compliance with relevant laws and regulations, and by monitoring the status and operation of internal control systems. MHI strives to maintain conditions under which statutory auditors can efficiently execute their duties; the Statutory Auditor's Office has been set up with its own dedicated staff to support and facilitate the work carried out by the statutory auditors.

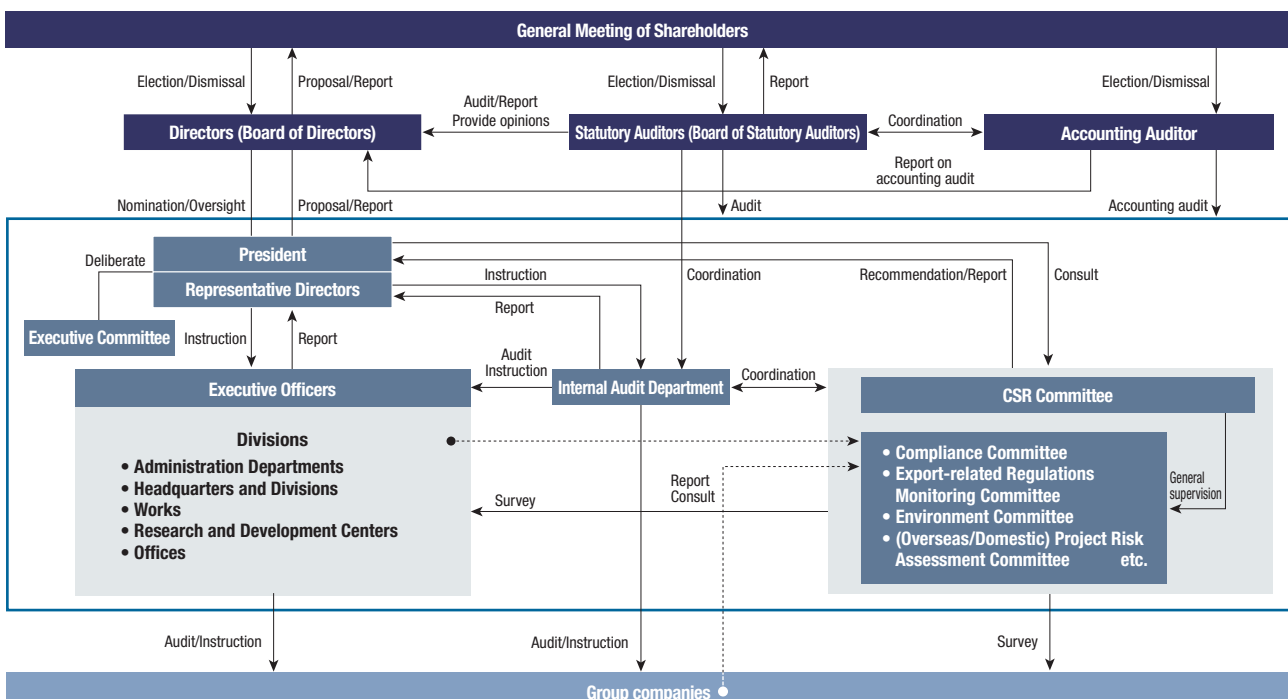
Statutory auditors and accounting auditors periodically exchange information and opinions and cooperate closely in other ways, including participation of statutory auditors in accounting audits.

### Steadily promoting measures under a basic policy for internal control system

In May 2006, the Board of Directors approved a basic policy for internal control systems. Under this policy, the company is steadily promoting thorough compliance, reinforcing risk management, and improving the effectiveness of internal audits. Furthermore, in response to the launching of the Internal Control Report System established by the Financial Instruments and Exchange Act (known as J-SOX) in April 2008, the Board of Directors added in March 2008 a provision to the basic policy declaring that MHI and MHI Group companies shall ensure the accuracy of their respective financial information, and arrange the organization, company regulations and other matters required for the preparation and disclosure of reliable financial reports.

MHI has been preparing for the Internal Control Report System since 2006 and providing Group companies with instructions and support for improving their systems to ensure appropriate financial disclosure.

**Corporate Governance Structure (including internal control system) (as of April 1, 2008)**





## Management

### Promoting Production System Innovation across the Company

#### Reforming business processes from the two aspects of physical structures and information

Manufacturing ability is the source of competitive strength in the manufacturing industry. Securing and strengthening this capability has emerged as a critical management issue in the face of today's increasingly severe business climate. In light of this situation, MHI established the Production System Innovation Planning Department in April 2006. The Department reports directly to the company president.

The Production System Innovation Planning Department functions as a control tower that oversees the Production System Innovation Planning Groups at individual works; the company-wide Production System Innovation Planning Conference, consisting of promotion leaders at each works; and the Managers' Conference, which is organized across all works by function (manufacturing, design and quality). In this role, the Department is able to address challenges commonly shared across the company and to solve problems that are difficult for individual works to handle alone, as they arise in cooperation with related bodies, such as the Presidential Administration Office, the Personnel Department and the Technical Headquarters. These challenges and complications involve the development and enhancement of human resources, the transfer of expertise and skills, and the innovation of facilities and business processes.

In fiscal 2007, while promoting a shift to medium-lot style production, the company expanded activities that had formerly focused on manufacturing to include the entire value chain and advanced the reform of business processes from the two aspects of physical structures and information.

#### Focus in Fiscal 2007

Since its launch in April 2006, the Production System Innovation Planning Department has focused on strengthening manufacturing methods, production processes, facilities and human resources. To further develop these efforts, the Department expanded its activities into design and procurement activities in 2007 and worked on establishing a cyclical production model that advances the standardization and modularization of products across the entire value chain.

#### Establishment of a cyclical production model to simultaneously enhance quality and efficiency

Most of the company's products are custom designed and built one at a time. Constantly changing designs and specifications, however, can negatively impact production efficiency and quality. Furthermore, just as in mass production, there are more than a few cases of continuous production and sales of similar built-to-order products.

Therefore, the Production System Innovation Planning Department has introduced modular design<sup>\*1</sup> and mass customization<sup>\*2</sup> in built-to-order products to establish a business process similar to mass production. This is the cyclical production model the company is seeking.

The objective of a cyclical production model is not only to improve production processes but also to enhance quality across the entire value chain through the sharing and standardization of design, parts procurement and even marketing activities. The standardization of products and business processes has already progressed in some fields, including large machine tools and exhaust gas desulfurizers, and received high marks from customers.

We will continue to improve the quality and efficiency of manufacturing by expanding standard specifications of built-to-order items while increasing specification options for mass products and rolling out best practices across the company.

**\*1 Modular design:** Design technique to reduce the variety of component parts while at the same time achieving extensive product variations.

**\*2 Mass customization:** Technique for providing products quickly and at low cost while incorporating made-to-order features that respond to individual customer needs within the concept of mass production.

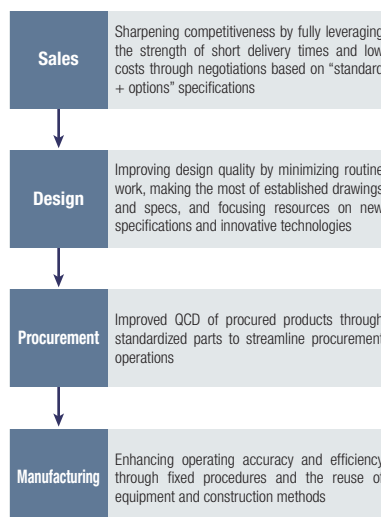
#### Establishment of Sustainability Energy & Environment Strategic Planning Department

Amid the growing awareness of energy and environmental issues worldwide, the company established its Sustainability Energy & Environment Strategic Planning Department on April 1, 2008 to quickly develop an infrastructure for exerting the company's comprehensive strengths in energy and environmental technologies and to position the company as a leader in energy and the environmental fields by aggressively communicating its business strategies and comprehensive technical capabilities outside of the company.

The Sustainability Energy & Environment Strategic Planning Department will conduct a survey of policy and market trends in Japan and around the world, create new road maps for product development, develop basic strategies for the company's energy and environmental businesses including M&As, issue recommendations to government and industry based on the government's greenhouse gas emission reduction frameworks, including "Cool Earth 50" and "Cool Earth—Innovative Energy Technology Program," and coordinate activities of the related departments in the company.

Current projects the department is working on include: (1) development and verification of a Integrated coal Gasification Combined Cycle (IGCC) power plant and CO<sub>2</sub> Capture and Storage (CCS) technology; (2) expansion of the thin-film silicon solar cell business and development of innovative solar cells; (3) development of new solar thermal power generation systems; (4) commercialization of an alternative energy value chain; (5) development of Gas Turbine Combined Cycle (GTCC) power generation at the level of 1,700°C; (6) advancement and dissemination of nuclear power generation; (7) mass production of lithium-ion batteries; (8) construction of next-generation, low-emission and energy conserving vessels; (9) development of large-capacity offshore wind farms; (10) development and dissemination of high-performance heat pumps; and (11) expansion of the desalination business.

#### MHI's Cyclical Production Model



# Promotion of CSR

The CSR Committee chaired by the President plays a central role at MHI in reviewing and following up on the progress of CSR activities as well as developing CSR policies toward becoming a company that maintains public trust with CSR at the center of management. In 2007, MHI established and worked to broadly embed its CSR Action Guidelines into company operations.

## CSR Committee Plays a Central Role in Promoting Company-wide Activities

### CSR Directors and Managers are assigned to each organization to regularly review the status of activities

In October 2006, the company set up the CSR Committee chaired by the President and the CSR Department, which reports directly to the President, in order to strengthen the focus of management on CSR and to promote strategic and comprehensive CSR activities. The CSR Department focuses on (1) promoting company-wide CSR and (2) monitoring the progress of CSR measures carried out by the related committees and groups of managing members.

In terms of (1), the company assigned a CSR Director and a CSR Practice Manager in each of its headquarters, division, works and spin-off Group companies. Since June 2007, we have expanded this structure to include Group companies in Japan and overseas.

In terms of (2), the CSR Liaison Conference is held approximately once every two months to receive regular reports on the status of activities carried out by individual committees and groups of man-

ing members, and to review issues and progress.

### Developing activity plans for the next fiscal year and beyond based on the CSR Action Guidelines

In fiscal 2007, we worked on establishing the MHI CSR Action Guidelines, CSR-related educational activities and the development of priority CSR activity plans for the next year and beyond.

MHI's CSR Action Guidelines (see p. 7) are based on the recommendations of a working group that mainly consists of younger and female employees and was officially approved and released during the second session of the CSR Committee in July 2007.

To encourage every employee to concretely adopt the Action Guidelines, we created original screen savers and pocket cards and distributed them to all Group companies in Japan. We also distributed approximately 70,000 copies of a condensed *CSR Report* that includes an explanation of our Action Guidelines to all Group company employees.

Furthermore, CSR training sessions were held at individual works with as many as 900 executives, mid-level and younger employees participating. An

evaluation program (see p. 29) was also implemented to identify issues for future CSR activities as well as to gain basic knowledge of CSR.

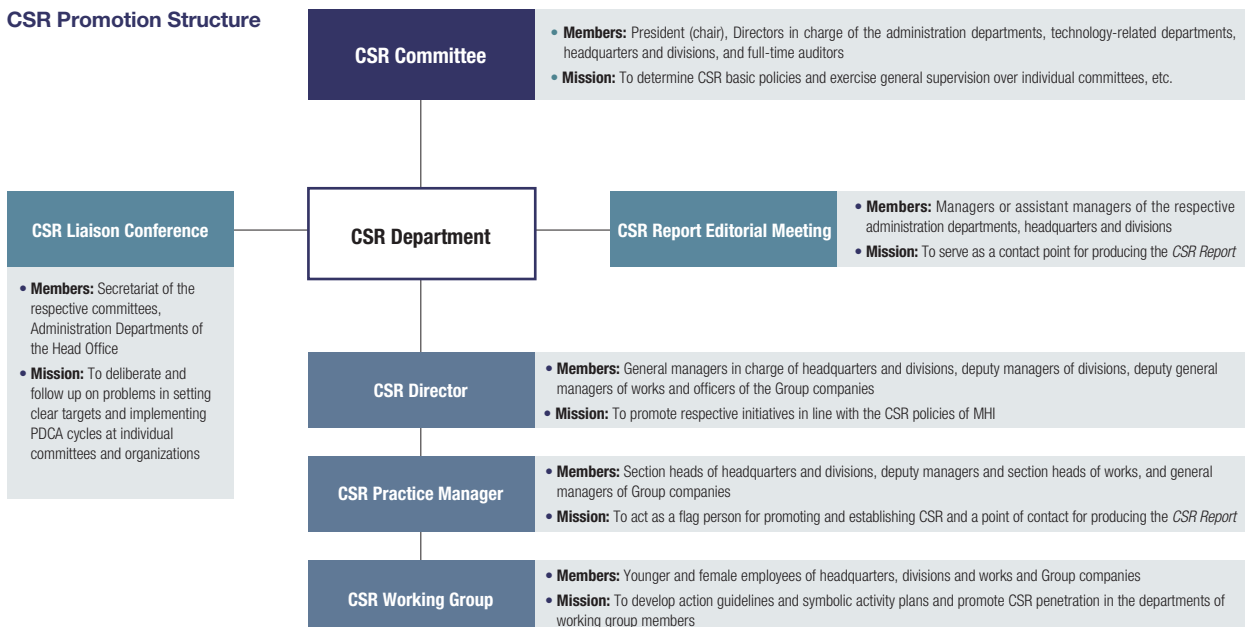
In addition, town meetings (see p. 29) were held at individual works in fiscal 2007, encouraged by the enthusiasm of former President Tsukuda (current Chairman) for speaking directly with younger employees who are expected to serve as the driving force for transforming the company. During these events, the former president personally planted CSR Promotion Trees as symbols of CSR activities at the respective works.

Looking ahead, we plan to develop effective initiatives based on current challenges and targets in line with the CSR Action Plan (see p. 23) established in the 2008 business plan to further reinforce the CSR activities of the entire MHI Group.



Original screen savers developed to encourage the penetration of the CSR Action Guidelines

## CSR Promotion Structure





## Management

### Activities of Major Related Committees

#### CSR Committee

#### Formulated Medium-term Business Plan based on the basic policy of 2008

The third session of the CSR Committee, held in December 2007, reviewed the activities of the related committees and decided: (1) to reinforce efforts across the entire Group; (2) to have individual divisions to implement PDCA cycles autonomously; and (3) to set clear targets and plans from the medium- and long-term perspectives. At the same time, based on the basic policy stated in the 2008 business plan, calling for the establishment of outstanding social reliability through CSR activities, the committee discussed the activities of the existing committees and office organizations and the three-year plan (see p. 23) concerning CSR activities in line with the CSR Action Guidelines. The committee reported the plan to the Executive Committee and obtained the committee's approval.

#### Compliance Committee

#### Carefully documenting matters concerning the promotion of compliance

The Compliance Committee was established in May 2001 to ensure compliance with laws and social norms and to promote fair and honest business activities. The committee is chaired by the Director in charge of compliance and consists of related general managers of the Head Office, the general managers of the various headquarters and divisions, deputy general managers in charge of managerial matters, branch managers and deputy general managers in charge of managerial affairs of works.

In fiscal 2007, the committee discussed the Compliance Promotion Rules to identify essential tenets from compliance activities that had already been implemented and to clearly define internal rules. In addition, the committee is collecting and analyzing information on situations that require improvement in terms of compliance and reporting on them at its sessions. The committee is also reviewing the operational status of the Special Contact Point and the implementation status of compliance promotion trainings (see p. 31).

#### Environment Committee

#### Reviewing the entire company's approach to achieving the targeted CO<sub>2</sub> reductions

The Environment Committee was established in 1996 as an inter-departmental organization to shift the focus of activities from simply preventing pollution to proactively promoting environmental activities from a broader perspective. Each year the committee plans and proposes environmental measures to be carried out company-wide and sets the direction for the year. It also promotes and follows up on the annual environmental protection plans for each headquarters, division and works.

In fiscal 2007, the discussions on efforts to accomplish the mid- and long-term environmental targets focused on reviewing of procedures for assessing the achievement of CO<sub>2</sub> emission reduction targets and determining next steps. The committee again set the direction for company-wide activities to accelerate efforts for accomplishing the CO<sub>2</sub> emission reduction targets.

## TOPICS

### Rolling out Town Meetings and CSR Training at works nationwide to enhance and deepen the CSR awareness of every employee

#### Town Meetings open direct communication between the President and employees

Since fiscal 2006, MHI has been holding Town Meetings in which the President visits individual works and engages in dialogue with employees at the assistant manager level or those in charge of specific tasks, with the goal of creating a climate of openness and unifying the direction of the entire company.

In 2007, the second year of this initiative, 15 meetings were held with the participation of 753 employees. At a Town Meeting, the President reports on the current status and future of the company and explains the importance of CSR, followed by a question-and-answer session of about one hour. Participants have provided ample feedback, including such statements as, "I could feel the enthusiasm of the President, which is difficult to communicate through writing," "Now I understand where the company is headed," and "My level of motivation is now higher than before."

#### CSR training conducted at all works to broaden CSR awareness

CSR training sessions were conducted at all works from August 2007 to March 2008 with a total attendance of about 900 executives, mid-level managers and younger employees.

At the CSR training session, Managing Director Yasuda, who is in charge of CSR promotion, delivered a key note address entitled, "Making Mitsubishi Heavy Industries a group that is trusted by society," followed by sessions covering the basics of CSR provided by the Caux Round Table, an incorporated nonprofit organization that is helping to promote CSR activities at MHI. Information exchange sessions were then held in which mid-level managers and younger employees discussed CSR activities and issues to be addressed in the future, as well as the evaluation program for CSR awareness and efforts of individual works, headquarters and divisions. Results of the evaluation will be used to guide the future activities of each department.



Former President Tsukuda (current Chairman) again hosting Town Meetings at individual works after similar meetings in fiscal 2006



Mid-level managers and younger employees exchanging opinions on CSR activities and issues to be addressed

**Committee for Raising Awareness of Human Rights**  
**Raising awareness of human rights**

MHI set up the Committee for Raising Awareness of Human Rights in 1992 to promote the establishment of a sound workplace in which every employee correctly understands the issue and respects the human rights of others. Chaired by the Director in charge of personnel and with the membership of general managers in charge of personnel of each works, the committee is working on raising awareness of human rights, sharing information about human rights issues and promoting human rights training.

The committee implemented a training program from April through June in fiscal 2007 to raise awareness among new recruits, newly appointed managers and supervisors. In terms of preventing sexual harassment, the committee has improved the system by setting up a contact point for consultation and complaints in each works and workplace. In addition, the committee revised the company's booklet on preventing sexual harassment in response to the amended Equal Employment Opportunity Law and distributed the revised version across the company to prevent sexual harassment.

**Committee for the Promotion of Employment of the Handicapped**  
**Proactively expanding job opportunities for the handicapped**

This committee was established in 1992 based on the philosophy of the Law for Employment Promotion, etc. of the disabled. Chaired by the Director in charge of personnel and with the membership of general managers in charge of personnel at each works, the committee's duties include formulating basic policies related to employment of the handicapped, drawing up and implementing related plans, raising awareness for promoting employment of the handicapped, sharing information and contacting and coordinating with related administrative agencies and organizations.

The company has been proactive in such as areas as revising its Website, "mano a mano," which translates as "hand to hand" in Spanish, for the employment of the handicapped, while partnering with local job-placement offices and skill-building schools for the handicapped. As a result, the rate of employment of the



Website for handicapped individuals, "mano a mano"

handicapped as of April 1, 2008 is 1.94%, which exceeds the statutory employment rate of 1.80%.

**Export-related Regulations Monitoring Committee**  
**Reinforcing in-house controls and providing educational tools company-wide**

This committee was set up in 1987 to reinforce export controls, a topic of grave importance to a company like MHI with a high export ratio. One committee member is appointed from each department to be in charge of related matters and committee members convene every month to review the export requests. The members also share information on the status of each department, draw up and implement in-house education programs and provide their respective departments with instruction and supervision as needed.

In fiscal 2007, the committee further reinforced in-house controls by introducing a system to check for necessary export permissions from the Ministry of Economy, Trade and Industry and to ensure the completion of required in-house procedures for goods carried by employees on overseas business trips and for technologies offered abroad. In addition, the committee provides an e-learning program allowing employees to gain basic knowledge of export-related laws and regulations any time. More than 6,000 employees have used the program.



e-learning program on export-related laws and regulations

**Construction Business Act Compliance Committee**  
**Developing e-learning for Construction Business Act to further increase compliance**

Since its launch in October 2003, this committee has been disseminating information on the Construction Business Act, the basic law concerning construction works in Japan, while monitoring engineer qualifications and compliance at construction works.

In fiscal 2007, seminars by external lecturers were conducted at major works with 879 participants, including employees from Group companies. In addition, e-learning for Construction Business Act was developed and offered in fiscal 2008 as a new educational tool that is available at site offices with Internet access. We

expect this tool will further improve compliance since it allows those who cannot attend seminars to keep pace with the latest information on the Construction Business Act.

In addition, an inquiry system is available for consultation on the Construction Business Act conducted by the secretariat of the committee. The system uses a Q&A format and provides examples for sharing information across the entire company.

**Order Compliance Committee**  
**Reinforcing fair and sound corporate activities through monitoring and external evaluations**

The company established this committee, chaired by the Director in charge of internal audits, in August 2005 to concretely demonstrate our serious intent to prevent recurrences of past violations of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade. The committee meets every two months to discuss and determine actions related to such issues as the establishment of guidelines for order compliance and ensuring fairness in bidding procedures. It also confirms the effectiveness of implementation through dedicated monitoring. Overall, rules are being followed and the awareness of compliance with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade is taking root. Three external members of the committee provide advice on the company's activities and recognize the thoroughness of its efforts.

We will continue to ensure compliance with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade through this committee and related activities.

**Managing Board for Innovation in Nuclear Business**  
**Taking action to advance the safety and security of nuclear power by preventing nonconformity and ensuring compliance**

In fiscal 2007, the following activities were implemented at the Nuclear Energy Systems Headquarters, Kobe Shipyard & Machinery Works and Takasago Machinery Works.

- Quality management activities, including the inspection and improvement of business processes to ensure the reliability of operations and prevent nonconformity
- Maintenance proposals to power companies in response to the aging of nuclear power plants
- Continuing compliance training to further raise the awareness of those involved in the nuclear power business (see p. 48)



# Compliance

To instill awareness of compliance in each employee of the Group, the company established a promotion structure encompassing the entire company and all divisions while continuing to advance projects for sharing compliance-related policies and information with Group companies.

## Building a Promotion Structure Encompassing the Entire Company

**One representative from each company, works and department appointed to be in charge of promotion**

The company set up a Compliance Committee in May 2001 to promote fair and sincere business activities in compliance with laws and social norms. The committee is chaired by the Director in charge of compliance and its members are general managers of the related departments, business managers of headquarters and divisions, and deputy managers of divisions

in charge of managerial matters, branch managers, and deputy general managers in charge of managerial matters of works. Meeting twice a year, the committee's activities include deliberating company-wide compliance promotion plans, reviewing the status of submissions to the Special Contact Point and compliance training.

In April 2006, Departmental Compliance Committees were established in all departments of the company. Members of the Compliance Committee chair the respective committees that implement compliance measures in the respective departments.

Compliance Liaison Conferences and Departmental Compliance Commit-

tees were set up in April 2006. Compliance Committees were also established in each Group company to conduct voluntary compliance promotion activities, and the Compliance Liaison Conferences regularly convenes, understanding the importance of maintaining an ongoing exchange of information among Group companies.

## Newly documenting basic items related to compliance promotion

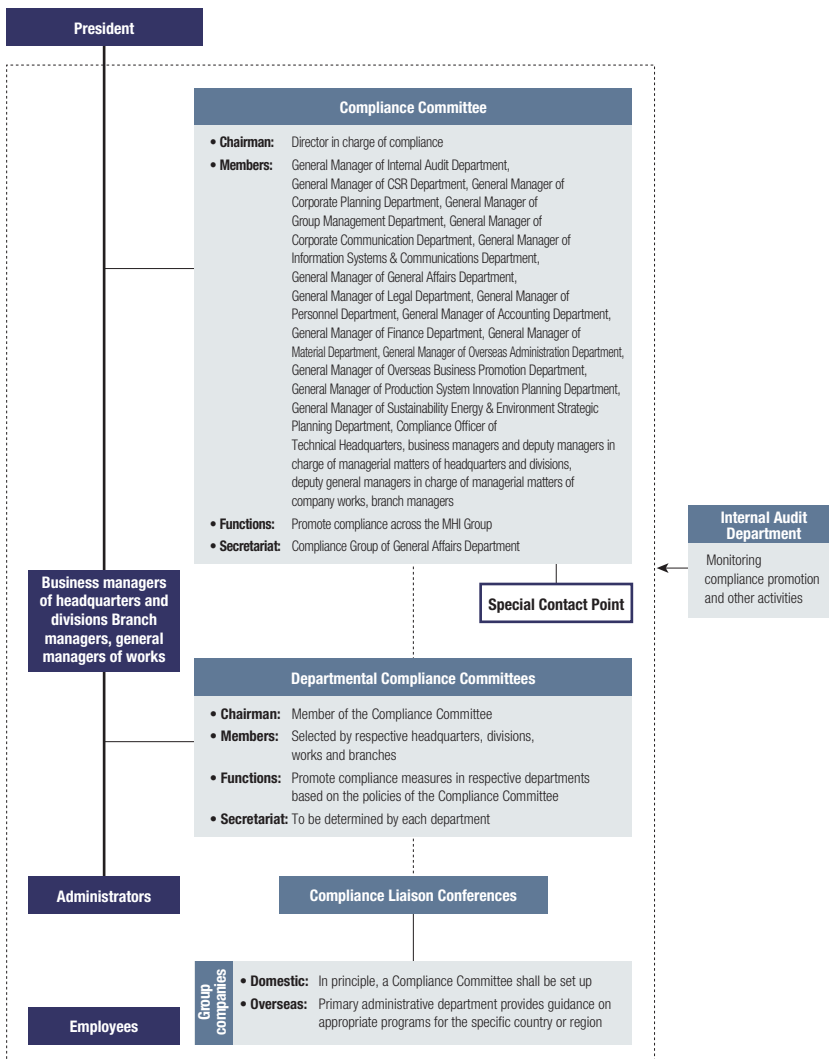
Since establishing the Compliance Committee in 2001, the company has developed and publicized MHI Compliance Guidelines and booklets while improving the overall compliance structure by setting up the Departmental Compliance Committees and the Compliance Liaison Conferences.

In addition to these activities, the company formalized the structure of its compliance functions by establishing Compliance Promotion Rules in 2007 as a concrete, corporate framework for basic matters related to promoting compliance throughout the company.

The rules lay out the structures of the Compliance Committee, Departmental Compliance Committees and Compliance Liaison Conferences and operational guidelines for submissions through the special contact point as well as provisions for employee responsibilities.

We have been working to keep everyone informed through guidelines and training programs, and now, with the establishment of the Compliance Promotion Rules, the company is further emphasizing adherence to the MHI Compliance Guidelines in the ongoing conduct of business, and prompt reporting to supervisors, concerned departments or special contact points in the event of any actual or suspected violation.

## Compliance Promotion Structure



## Preventing the Recurrence of Violations of the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade

### Safeguarding order compliance of the MHI Group

From 2005 through 2006, the company and its sales representatives were indicted on charges of violating the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade in relation to orders for bridge construction and raw sewage treatment facilities, followed by an inspection by Japan's Fair Trade Commission on suspicion of violating the same law. The company has been taking action, including the establishment of the Order Compliance Committee in August 2005, to prevent the recurrence of these situations and ensure full compliance with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade.

In fiscal 2007, the company implemented the following two additional measures.

#### (1) Reinforcement of our oversight and monitoring system

The Order Compliance Committee is chaired by the director in charge and advised by three external experts. Starting in January 2008, persons in charge of compliance in the department that oversees group companies joined the committee to ensure the horizontal coordination of order compliance activities and to reinforce oversight of Group companies.

#### (2) Enhancement of special monitoring for public-sector order compliance

The company conducts special monitoring for public-sector order compliance to verify the proper implementation of efforts to ensure order compliance.

In fiscal 2007, special monitoring was carried out across the company as well as in 24 Group companies that regularly participate in bidding on public-sector projects.

Special monitoring in fiscal 2008 is scheduled for all Group companies that participate in bidding on public-sector projects as well as MHI.

## Toward Thorough Compliance

### Distributing a booklet explaining Compliance Guidelines to all employees

In September 2001 the company established the MHI Compliance Guidelines, which stipulate the company's basic policy on compliance. The guidelines have been summarized in a pocket-sized card format and distributed to all employees so that they can carry them at all times. Furthermore, in May 2007 MHI distributed a booklet, entitled, *Compliance Guidelines*, that explains the guidelines in an easy-to-understand manner to all employees.



Compliance Guidelines

## MHI Compliance Guidelines

### I. Business activities

**We will conduct sensible company activities in compliance with laws and in an appropriate manner, and contribute to society by providing safe, high-quality products and services.**

1. We will endeavor to provide safe, high-quality products and services.
2. In conducting business activities, we will pursue fair and free intercorporate competition in compliance with the Antimonopoly Act, the Act against Delays in the Payment of Subcontract Proceeds, etc. to Subcontractors, the Construction Business Act, and other relevant regulations.
3. Regarding gift-giving and entertainment with civil officers and suppliers, we will not violate laws or deviate from socially accepted practices.
4. We will implement appropriate accounting and tax accounting in accordance with relevant laws, accounting standards, and internal regulations.
5. In relation to overseas business, we will follow laws related to import and export and local laws.

### II. Relationship between the company and society

**We will try to preserve the environment and live in harmony with society as a good corporate citizen.**

1. We will follow environment-related laws and try to preserve the environment.
2. We will disclose information related to management in an appropriate and timely manner.
3. We will not make political donations exceeding the amounts stipulated in our internal regulations.
4. We will respond firmly to antisocial forces.

### III. Relationship between the company and employees

**The company will secure a safe, healthy work environment, and company members will make clear distinctions between public and private, comply with laws and internal rules, and execute their duties faithfully.**

1. The company will follow labor-related laws and try to secure a safe, healthy work environment.
2. Company members will follow internal regulations such as labor regulations.
3. Company members will not engage in discriminative behavior or sexual harassment.
4. Company members will handle company secrets appropriately, and will not disclose them without prior consent.
5. Company members will not conduct unfair transactions in stock (insider trading).

### Interactive training to encourage independent thinking

A successful compliance program depends on raising the awareness of every employee. To this end, the company has been conducting compliance promotion training in a discussion format for all employees at their respective worksites since 2003.

In fiscal 2007, more than 30,000 employees, representing over 90% of the entire workforce, participated in this training. This year, we eliminated multiple choice questions from the course book and moved into an open discussion format to encourage participants to think on their own. Participants offered many comments on the training that indicated a steadily rising awareness of compliance, such as, "Vigorous discussion was helpful for promoting compliance in our department" and "Abide by laws under all conditions!"

# Responsibilities and Actions of MHI

## Management

### Compliance Awareness Survey

The Compliance Committee has conducted surveys on compliance awareness every year since fiscal 2004 to determine the extent to which various initiatives have changed the awareness of compliance among the company's employees and influenced their everyday behavior.

In fiscal 2007, a questionnaire was sent to 9,831 employees (a random sample consisting of approximately 30% of all employees) of whom 7,497 (76.3%) responded. About 95% of respondents answered that they were aware of compliance, enabling us to confirm that the awareness of compliance was at high level.

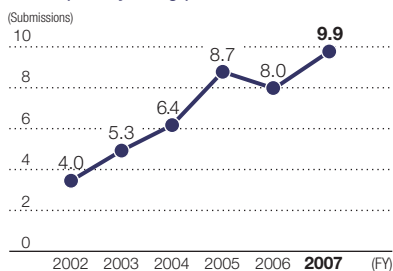
Furthermore, indicators for "level of compliance awareness," "violation potential," "recognition of the MHI Compliance Guidelines," and "workplace environment regarding compliance" have either improved over the previous year or remained constant. We believe this indicates steady progress in our compliance promotion efforts.

### Operation of the contact point for reporting and consultation

In June 2001 MHI established a Hot Line as a special contact point in the Compliance Committee for reporting and consultation, enabling the company to detect and correct at an early stage any unlawful or inappropriate activity.

The number of submissions has increased since the service became available. We believe this is the result of expanding its use to group companies as well as the elevated awareness of compliance among employees. The Compliance Committee quickly investigates each report and effectively addresses these issues. The company fully protects those who submit letters to ensure they are not treated unfavorably as a result of having provided this information.

### Submissions to the Special Contact Point (monthly average)



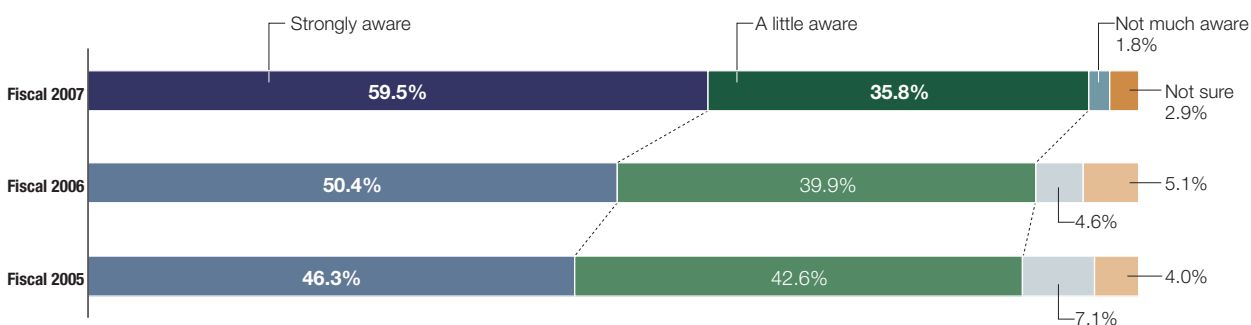
### Formulating the company's own guidelines for preventing bribery involving foreign civil servants

In accordance with the Unfair Competition Prevention Law and applicable laws and regulations in other countries, MHI has operated under the basic policy of never attempting to bribe a civil servant of a foreign country to obtain an improper advantage. The MHI Compliance Guidelines also prohibit improper business dealings that run counter to the spirit of compliance. In conjunction with these aims, the company established a Guideline for the Prevention of Bribery Involving Foreign Civil Servants in April 2005. This guideline explains the content of the Unfair Competition Prevention Law and the company's basic stance.

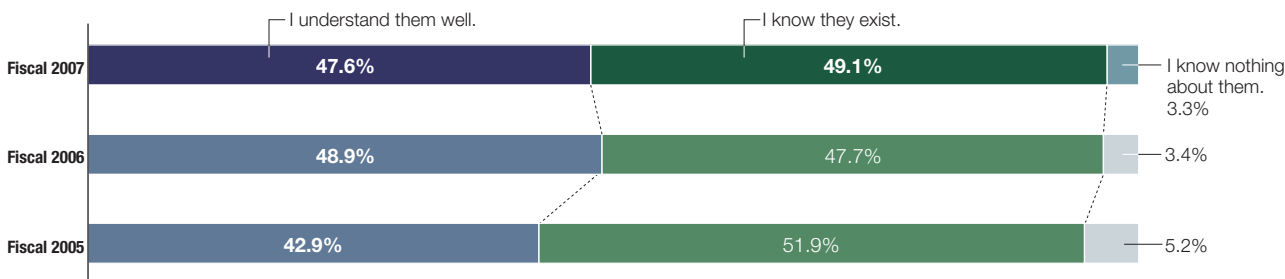
In addition, an English version of this guideline, as well as the Guidelines to Prevent Bribery of Foreign Public Officials released by the Ministry of Economy, Trade and Industry, and other documents have been posted on the Intranet so that all those involved in the company will be able to act properly in the course of conducting business overseas.

### Results of Compliance Awareness Survey

#### Q How much are you aware of compliance?



#### Q Are you familiar with MHI's Compliance Guidelines?





## Thoroughly Protecting Personal Information

In conjunction with the enforcement of the Act on the Protection of Personal Information in April 2005, MHI announced its own Privacy Policy and formulated Personal Information Protection Rules and the Personal Information Management Manual. In addition, the company compiled key points related to our business into a digest format and distributed it to all employees. Training related to the protection of personal information is also administered within the framework of compliance promotion training programs by employee level as well as in general training for all employees.

### Consolidated management of personal information

A personal information database registration system has been developed as a means for consolidating handling of personal data by registering all data owned by respective divisions.

## Enhanced Awareness of the Management of Confidential Information and Thoroughly Implementing Appropriate Controls

MHI has taken various steps over the years to raise employee awareness of how to manage confidential information. These include the establishment of in-house rules for managing confidential data, documents, and other information; setting down standards on information security management and other information systems; and the preparation and distribution of a manual on the management of confidential information and a MHI guide on how to prevent the leaks of confidential information.

Nevertheless, in August 2005, the computer of an employee at a company that collaborates with MHI was infected by a virus resulting in the leakage of data related to inspections of power-generating turbines, including water turbines. Subsequently in August 2006, it was discovered that data on nuclear power plant inspections had leaked from a PC privately owned by an MHI employee for similar reasons. Some power companies

responded by suspending MHI from new business for a period of several months.

In light of these information leaks, the company reinforced its prohibition against using privately owned PCs for business and installing software that is not required for company operations. In regard to Group companies, MHI provides instruction in the development of information security management rules, information management training and internal audits to ensure the effective management of information across the entire Group.

### Organizational and training approaches to prevent the leakage of confidential information

MHI takes various measures to prevent the leakage of confidential information, including: (1) stronger controls related to taking or accessing confidential information outside the company (such as the encrypting of external memory devices and e-mail and clarifying procedures); (2) exchanges of memoranda on preventing information leakage with service agents; (3) repeated efforts to achieve widespread recognition of specific procedures and rules relating to the management of confidential information and information security through e-learning and training programs by employee level. Implementation status of these measures is confirmed by internal auditing.

## Privacy Policy

**Mitsubishi Heavy Industries, Ltd. (hereinafter "MHI") recognizes that all personal information managed and used in its business activities must be handled and protected with the utmost care. Therefore, MHI will follow the basic policy stated below.**

1. MHI will not acquire any personal information through false or other improper means.
2. MHI will use personal information only to the extent and for the purposes specified, which will be announced or noticed to the persons to whom the information pertains.
3. MHI will endeavor to keep such personal information accurate and up-to-date.
4. MHI will take necessary and appropriate measures to maintain the security of such personal information.
5. MHI will furnish its employees and contractors handling such personal information with the necessary and appropriate guidance and supervision.
6. MHI will not provide personal information to any third party without the consent of the person involved.
7. If MHI receives an inquiry from a person about the use or content of personal information related to that person, it will provide a reasonable response.
8. If MHI receives any complaints regarding the handling of personal information, it will resolve such complaints in a prompt and appropriate manner.
9. MHI will establish rules and management systems for proper handling and protection of personal information and will thoroughly adhere to them.
10. MHI will engage in a strong effort to further enhance personal information protection systems by regularly reviewing and updating all rules and procedures regarding the handling of personal information, including this policy.
11. MHI will comply with all applicable Japanese laws and regulations regarding the handling of personal information.

## MHI Shell Rejects All Contacts with Organizations Involved in Activities in Violation of the Law or Accepted Standards of Responsible Social Behavior

The order and safety of civil society continue to be threatened by antisocial forces. In this context, the company has clearly stipulated its stance in the MHI Compliance Guidelines in the statement, "The company will respond firmly to any forces working counter to the interests of society."

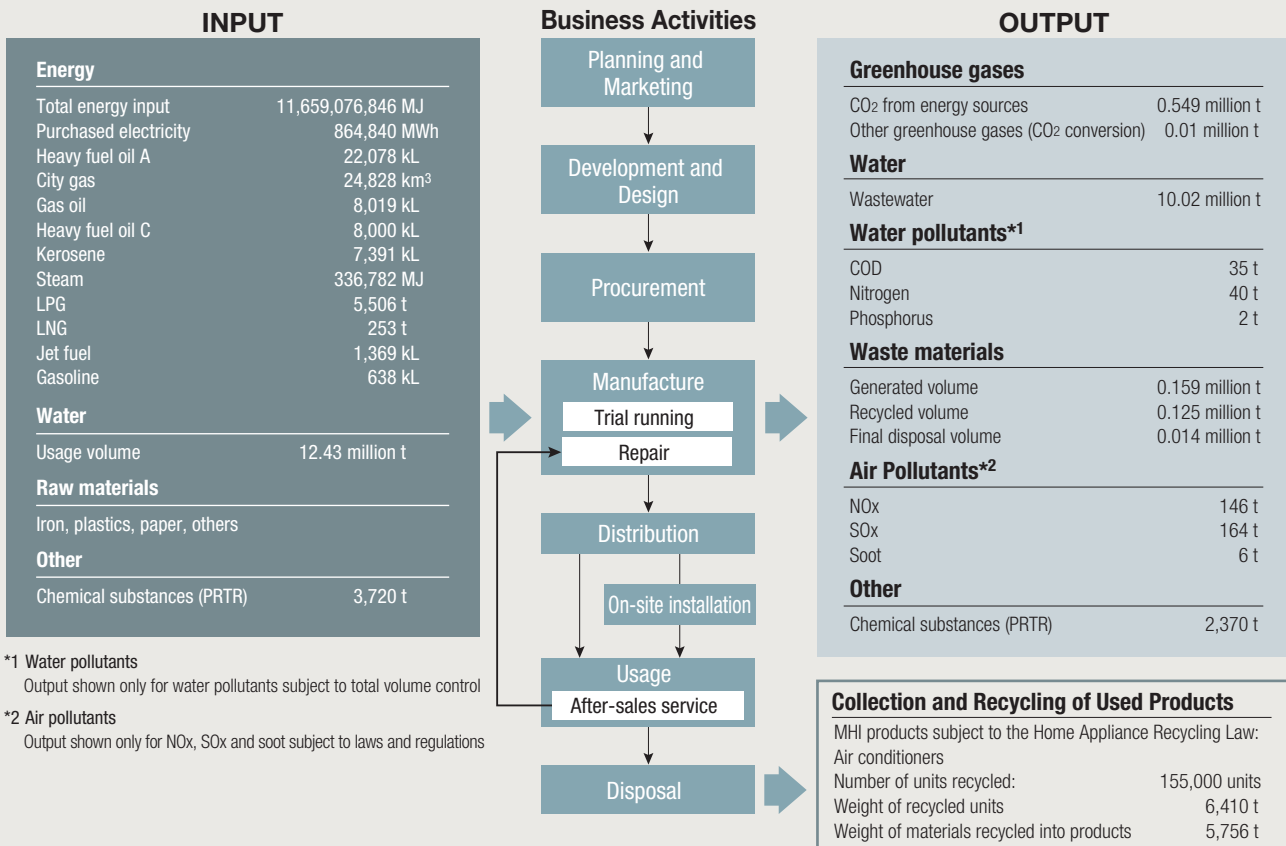
In terms of specific responses, for situations involving undue claims made to the company, MHI has thoroughly established a policy to respond as an organization in cooperation with the departments involved. In addition, the company has publicized the ideal mindset and essential concepts for responding to undue claims through compliance promotion training and other actions.

 Privacy Policy can be found  
<http://www.mhi.co.jp/en/privacy.html>

## Responsibilities and Actions of MHI

# Commitment to the Global Environment

MHI is working to alleviate the increasing environmental burdens across the globe by providing environmentally friendly products and technologies in diverse fields as well as by deploying environmental preservation activities throughout the product lifecycle from development and design to procurement of raw materials, production, on-site installation and final disposal.



# Environmental Management

MHI established an Environment Committee and an environmental management structure based on the PDCA Cycle (Plan, Do, Check and Act) to advance environmental preservation activities in concert with all departments and Group companies.

## Establishment of an Environmental Management Structure across the Group

### Reinforcing the environmental management structure company-wide and at individual works

In 1996, the company set up the Environment Committee chaired by the director in charge of the environment to plan annual environmental actions for the entire company.

Two entities have been set up for efficiently implementing the decisions of the Environment Committee throughout the company: the Environment Liaison Conference, which gathers those responsible for environmental activities in their respective works twice a year; and the Energy Conservation Liaison Conference, which determines actions for conserving energy and reducing CO<sub>2</sub> emissions. In addition, Environment Committees have been set up in all headquarters, divisions and works to both carry out the company's environmental policies and also undertake

environmental management activities corresponding to the specific features of each works.

An annual promotion plan that defines specific control items and response methods is developed to prevent pollution and to ensure thorough compliance with environment-related regulation, including the Act Concerning the Rational Use of Energy, the Air Pollution Control Law and the Law Concerning the Promotion of Measures to Cope with Global Warming. The progress of implementation is monitored by the Environment Committee two times each year.

### Mid- and long-term environmental targets set and shared by all Group companies

In order to establish a groupwide environmental management structure, MHI encourages the construction of environmental management systems in each Group company (see p. 38). In April 2008, the company established the MHI mid- and long-term environmental targets to fur-

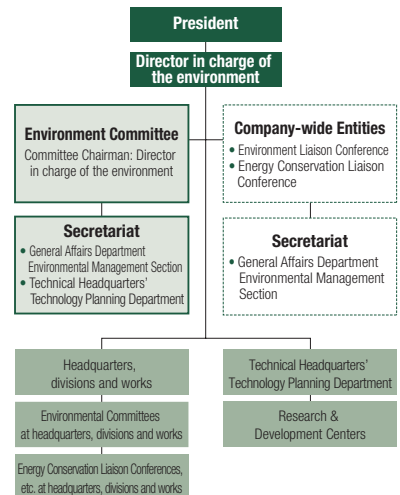
ther strengthen the unified environmental management of the entire Group.

### Initiating Environmental Meetings with Group companies in fiscal 2007

From the standpoint of promoting unified environmental management for the entire MHI Group, Environmental Meetings are held with the primary purpose of ensuring the compliance of Group companies and preventing accidents involving environmental pollution. The meetings identify problems, support exploration of improvements and exchange environment-related information.

Group companies scheduled to participate in the meetings include 26 companies that have independently obtained ISO certification for environmental management. Meetings were held at 12 of the 26 Group companies in 2007 and are scheduled to be held at remaining 14 in 2008.

### Environmental Management Structure



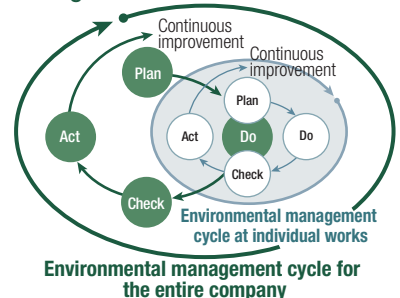
### Basic Policy on Environmental Matters (Established 1996)

As clearly laid out in provision 1 of its creed—"We strongly believe that the customer comes first and that we are obligated to be an innovative partner to society."—MHI believes its primary purpose is to contribute to society through its R&D, manufacturing and other business activities. Accordingly, in the performance of its business activities the company shall embrace the awareness that it is an integral member of society and, in all aspects of its business activities, it will strive to reduce burden on the environment and shall devote its comprehensive technological capabilities to the development of technologies and products that will protect the environment, as its way of contributing to the development of a sustainable society.

### Action Guidelines (Established 1996)

1. Accord high priority to environmental protection within company operations, and take steps company-wide to protect and enhance the environment.
2. Clarify roles and responsibilities regarding environmental protection by developing an organized structure to deal with environmental protection matters, defining environment-related procedures, etc.
3. Strive to alleviate burden on the environment in all aspects of company business activities—from product R&D and design to procurement of raw materials, manufacture, transport, usage, servicing and disposal—through pollution prevention, conservation of resources, energy saving, waste reduction, reuse and recycling.
4. Strive to develop and provide advanced, highly reliable, wholly proprietary technologies and products that will contribute to solving environmental and energy problems.
5. Strive continuously to improve and enhance environmental protection activities not only by fully complying with environmental laws and regulations but also, when necessary, by establishing, implementing and evaluating independent standards and setting environmental goals and targets.
6. In the performance of business activities overseas and exportation of products, pay full heed to impact on the local natural and social environments and strive to protect those environments; also, become actively involved in technological cooperation overseas in matters of environmental protection.
7. Take steps to raise environmental awareness among all employees through environmental education, etc., undertake activities to provide environment-related information to the public, and proactively make environment-enhancing contributions to society.

### PDCA cycle of environmental management





## Commitment to the Global Environment

### Establishing a Management System Based on its Own Standards

#### Establishing two unique standards that are compliant with ISO and EcoAction 21

In August 2007, MHI's Hiroshima Research & Development Center acquired ISO 14001 certification (incorporated into certification at works), thereby joining all other R&D centers in achieving this distinction, in addition to the Head Office and domestic works.

MHI created two environmental standards of its own to promote the introduction of environmental management systems across the Group: M-EMS is based on ISO 14001 while M-EMS EcoAction is modeled after EcoAction 21, a set of guidelines developed in Japan. The company is assisting its Group companies in constructing systems and obtaining certification through such actions as the development of manuals, on-site guidance, and the introduction of consultants.

As a result, 97 out of MHI's 130 domestic Group companies have now successfully set in place environmental management systems as of March 31, 2008.

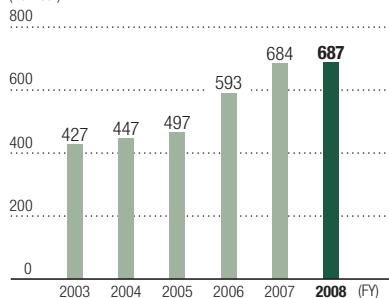
#### MHI holders of certified public qualifications related to the environment

(as of April 1, 2008)

Area of qualification (category)	Number
Environmental measurement (Density, noise and vibration)	6
Energy management	107
Pollution prevention management	380
Pollution prevention management supervision	17
Supervision in handling of specified chemical substances, etc.	891
Supervision in handling of organic solvents	1,680
Waste disposal facilities engineering management	19
Management of specially managed industrial wastes	142

#### Registered ISO Internal Auditors

(Number)



### Implementing Environmental Education Geared to Positions to Encourage Environmental Activities across All Operations

MHI has developed environmental education curriculums, including e-learning, to be implemented by respective works for the purpose of raising employee awareness of environmental issues. In addition to a semi-annual internal environmental auditor training course, the company also conducts special training for employees engaged in painting or the handling of hazardous materials. The goal of the program is to instruct employees in the potential environmental impact of their tasks; the proper methods for daily management; monitoring and measurement methods; and the appropriate actions for dealing with emergency situations.

### Controlling and Improving Response to Potential Environmental Impact Risks

#### Clarifying the risks at each works and addressing them through daily management

The company has prepared a manual based on ISO standards for each works, encompassing such issues as risk identification methods, daily management procedures and contingency plans. The purpose of the manual is to identify latent environmental risks and improve our ability to prevent them. Each works also regularly carries out emergency response drills for various hypothetical emergencies, for example, oil spills and earthquakes, in conjunction with "Environment Month" or other disaster drills. A system is also in place for the company's in-house crisis management information system to quickly convey information to the President in the event of any emergency situation in any plant.

In fiscal 2007, several incidents including the survey results of soil contamination were reported to the President.

### Remediation of contaminated soil and groundwater

MHI is also taking important steps to detect and eliminate any contamination present in the soil or groundwater at the company's works.

In fiscal 2007, soil testing was carried out at company sites where there were opportunities to sell or modify land. Tests revealed soil contamination from lead, arsenic and fluorine at the former technical training center of the Air-Conditioning & Refrigeration Systems Headquarters (Miwa, Aichi) in July, soil contamination from hexavalent chromium at the Oye plant of the Nagoya Aerospace Systems Works (Minato-ku, Nagoya) in August, and soil contamination from arsenic at the premises of Nishieda company housing (Nakamura-ku, Nagoya) in December.

Test results were promptly reported to local government authorities, disclosed to the surrounding communities and publicly released. Although there were no adverse impacts on the surrounding environment, the company took action to excavate and remove or cover the contaminated soil.

### Green purchase and procurement

As one means for reducing its environmental burden, MHI had emphasized the purchase of recycled paper, an environmentally friendly product. The company suspended this practice, however, in light of the misleading composition ratio of recycled paper discovered in January 2008. Consequently, the company, in line with its CSR Action Plan, discontinued the purchase of recycled paper that does not comply with standards set forth in the Law on Promoting Green Purchasing until this issue has been fully resolved.

The company will reinstate its earlier purchase policy once it has determined that the paper industry has taken appropriate measures to ensure compliance with mandated guidelines and regained the trust of the government and the public.

### Sites with VOCs\*1 exceeding legal limits, and remediation status

Site	Location	Soil and groundwater contamination	Soil contamination	Redemption status	Redemption method*2
Air-Conditioning & Refrigeration Systems Headquarters, Biwajima Plant	Nishi-Biwajima-cho, Kiyosu-city, Aichi	○		Purification under way and gas absorption completed	A
Former Industrial Machinery Division	Nagoya, Aichi	○		Purification under way	A,C
Nagoya Aerospace Systems Works, Oye Plant	Nagoya, Aichi	○		Monitoring	
Nagoya Guidance & Propulsion Systems Works	Komaki, Aichi	○		Purification under way	A,C
Kobe Shipyard & Machinery Works, Main Plant	Kobe, Hyogo		○		
Hiroshima Machinery Works, Kannon Plant	Hiroshima		○	Monitoring	
Takasago Machinery Works	Takasago, Hyogo		○		

\*1 Tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethylene, cis-1,2-dichloroethylene, 1,1-dichloroethylene, dichloromethane, benzene.

\*2 Major remediation methods include: (A) groundwater pumping, (B) soil gas absorption and (C) iron powder mixing.

# Environmental Management Systems Adopted at MHI and Its Subsidiaries

## ISO 14001 certification at MHI works and research & development centers

	Location	Date of issue (or registration)
MHI sites	Yokohama Dockyard & Machinery Works	Oct. 31, 1997
	Nagasaki Shipyard & Machinery Works	May 22, 1998
	Takasago Machinery Works	Jun. 26, 1998
	Air-Conditioning & Refrigeration Systems Headquarters	Nov. 20, 1998
	General Machinery & Special Vehicle Headquarters	May 21, 1999
	Paper & Printing Machinery Division	Sep. 3, 1999
	Plant and Transportation Systems Engineering & Construction Center (Mihara)	Sep. 3, 1999
	Hiroshima Machinery Works	Sep. 30, 1999
	Shimonoseki Shipyard & Machinery Works	Nov. 24, 1999
	Nagoya Guidance & Propulsion Systems Works	Dec. 18, 1999
	Kobe Shipyard & Machinery Works	Feb. 18, 2000
	Iwatsuka Area (formerly Industrial Machinery Division)	Mar. 17, 2000
	Machine Tool Division	Dec. 28, 2000
	Plant and Transportation Systems Engineering & Construction Center (Yokohama)	Jun. 29, 2001
	Nagoya Aerospace Systems Works	Oct. 1, 2003
	Head Office	Apr. 6, 2006
	Research & development centers	Nagasaki Research & Development Center
Advanced Technology Research Center		Nov. 9, 2006
Yokohama Research & Development Center		Nov. 9, 2006
Hiroshima Research & Development Center (Hiroshima)		Aug. 2, 2007
Hiroshima Research & Development Center (Mihara)		Dec. 5, 2006
Nagoya Research & Development Center		Dec. 26, 2006
Takasago Research & Development Center		Mar. 9, 2007

## ISO 14001 certification at MHI Group companies

	Location or company name	Date of issue (or registration)
Domestic Group companies	MHI Solution Technologies	Aug. 28, 1998
	Mitsubishi Agricultural Machinery Co., Ltd.	Jul. 24, 2001
	Nagoya Ryoju Estate Co., Ltd.	Mar. 14, 2002
	Nishinon Ryoju Estate Co., Ltd.	Jul. 12, 2002
	Chubu Jukan Operation Co., Ltd., Head Office	Jan. 13, 2004
	Mitsubishi Heavy Industries Environment Engineering Co., Ltd., Urban Environmental Business Headquarters	Apr. 12, 2004
	Ryoju Co., Ltd., Printing Division, Tokyo Plant (including Head Office)	Apr. 23, 2004
	Ryoju Co., Ltd., Printing Division, Chubu Plant	Jul. 22, 2004
	Ryoju Co., Ltd., Mihara Branch	Aug. 3, 2004
	Mihara Ryoju Machinery Works Co., Ltd.	Feb. 16, 2005
	Ryowa Engineering Co., Ltd.	Feb. 17, 2005
	Shimonoseki Ryoju Estate Co., Ltd.	Mar. 14, 2005
	Ryoju Estate Co., Ltd.	Mar. 17, 2005
	Mitsubishi Heavy Industries Food & Packaging Machinery Co., Ltd.	Mar. 17, 2005
	Seibu Jukan Operation Co., Ltd.	Mar. 22, 2005
	Kusakabe Co., Ltd.	Mar. 24, 2005
	Tamachi Building Co., Ltd.	Mar. 25, 2005
	Higashi Chugoku Ryoju Estate Co., Ltd.	Mar. 29, 2005
	Hiroshima Ryoju Estate Co., Ltd.	Apr. 9, 2005
	Mitsubishi Heavy Industries Environmental Engineering Co., Ltd., Head Office	Apr. 7, 2005
	Ryoju Cold Chain Co., Ltd.	Apr. 22, 2005
	Dia Precision Casting Co., Ltd.	May 11, 2005
	Tokiwa Machinery Works Ltd.	May 18, 2005
	Jukan Operation Co., Ltd., Head Office	Aug. 1, 2005
	MHI Aerospace Logitem Co., Ltd.	Jan. 5, 2007
Mitsubishi Heavy Industries Air-Conditioning & Thermal Systems Corporation, System Production Department	Sep. 14, 2007	
Mitsubishi Heavy Industries Environment Engineering Co., Ltd., Environmental Plant Headquarters	Dec. 31, 2007	
Mitsubishi Heavy Industries Printing & Paper Converting Machinery Sales Co., Ltd.	Jun. 26, 2008	
Mitsubishi Heavy Industries-Haier (Qingdao) Air-Conditioners Co., Ltd.	Dec. 14, 1998	
MHI Equipment Europe B.V.	Nov. 9, 2001	
Mitsubishi Caterpillar Forklift Europe B.V.	Jul. 25, 2002	
Mitsubishi Heavy Industries Climate Control Inc.	Jun. 12, 2003	
Mitsubishi Power Systems, Inc., Orlando Service Center	Feb. 18, 2004	
MHI Automotive Climate Control (Shanghai) Co., Ltd.	Jul. 11, 2005	
CBC Industrias Pesadas S.A.	Dec. 1, 2005	
Mitsubishi Heavy Industries Korea Ltd.	Dec. 17, 2005	
Mitsubishi Heavy Industries Mahajak Air Conditioners Co., Ltd.	Dec. 21, 2005	
Mitsubishi Heavy Industries-Jinling Air-Conditioners Co., Ltd.	Jan. 24, 2006	
MHI Machine Tool (Hong Kong) Ltd.	Mar. 30, 2006	
Mitsubishi Heavy Industries, (Hong Kong) Ltd.	Apr. 5, 2006	
MLP Hong Kong Ltd.	May 25, 2006	
Mitsubishi Heavy Industries, (Shanghai) Co., Ltd.	Jul. 5, 2006	
MHI-Pomchai Machinery Co., Ltd.	Jul. 17, 2005	
Mitsubishi Heavy Industries India Private Ltd.	Dec. 7, 2006	
Mitsubishi Heavy Industries Singapore Private Ltd.	Jan. 21, 2007	
Mitsubishi Heavy Industries America, Inc. Headquarters	Oct. 15, 2007	
Mitsubishi Heavy Industries America, Inc. Tire Machinery Division	Oct. 15, 2007	
Mitsubishi Caterpillar Forklift America Inc.	Dec. 6, 2007	
Mitsubishi Heavy Industries (Thailand) Ltd.	Dec. 31, 2007	

## EcoAction 21 certification at MHI Group companies

	Location or company name	Date of issue (or registration)
Domestic Group companies	Daiya Building Service Co., Ltd.	Apr. 21, 2005
	Nuclear Development Co., Ltd.	May 30, 2005
	Ryonichi Engineering Co., Ltd.	Oct. 31, 2005

## K-EMS certification at MHI Group companies

	Base or company name	Date of issue (or registration)
Domestic Group companies	Seiry Engineering Co., Ltd.	Dec. 24, 2004
	Kinki Ryoju Estate Co., Ltd.	Feb. 23, 2005
	Shinyo High Technologies, Ltd.	Feb. 23, 2005
	Engineering Development Co., Ltd.	Mar. 24, 2005
	Nuclear Power Training Center, Ltd.	Mar. 24, 2005
	MHI General Services Co., Ltd.	Mar. 24, 2005
	Ryoju Co., Ltd., Kobe Branch	Mar. 24, 2005
	Techno Data Engineering Co., Ltd.	Feb. 27, 2006
	Energis Co., Ltd.	Mar. 23, 2006

## Kamakura EcoAction 21 certification at MHI Group companies

	Location or company name	Date of issue (or registration)
Domestic Group companies	Shonan Monorail Co., Ltd.	Apr. 4, 2007

## MHI Group companies adopting M-EMS (based on ISO 14001)

	Location or company name	Date of issue (or registration)
Domestic Group companies	Kensa Kenkyusho Inspection Co., Ltd.	Apr. 25, 2005
	Ryoju Co., Ltd., Shinagawa Branch	Apr. 26, 2005
	Mitsubishi Heavy Industries Air-Conditioning & Refrigeration Systems Corporation	May 13, 2005
	Mitsubishi Heavy Industries Forklift Sales Co., Ltd.	Jul. 12, 2005
	Mitsubishi Heavy Industries Engines Systems Co., Ltd.	Jul. 12, 2005
	Aomori Daiya Co., Ltd.	Jul. 12, 2008
	Kagoshima Daiya Co., Ltd.	Jul. 12, 2008
	Mitsubishi Engine North America, Inc	Jan. 19, 2007
	MHI Injection Molding Machinery, Inc.	Jan. 19, 2007
	MLP U.S.A., Inc.	Jan. 19, 2007

## MHI Group companies M-EMS EcoAction (based on EcoAction 21)

	Location or company name	Date of issue (or registration)
Domestic Group companies	Mihara Ryoju Engineering Co., Ltd	Apr. 20, 2005
	Ryoju Co., Ltd., Sagami Branch	Apr. 25, 2005
	Shunjusha Ltd.	Apr. 26, 2005
	MHI Sagami High-tech, Ltd.	May 9, 2005
	Ryosen Engineers Co., Ltd.	May 10, 2005
	MHI Turbo-Techno Co.	May 11, 2005
	Hiroshima Dia System Co., Ltd.	May 11, 2005
	Ryoju Transportation Equipment Engineering & Service Co., Ltd.	May 12, 2005
	MHI Marine Engineering, Ltd.	May 16, 2005
	Churyo Engineering Co., Ltd.	May 16, 2005
	Ryoju Co., Ltd., Minatomirai Branch	May 16, 2005
	MHI Aerospace Systems Corp.	Jul. 12, 2005
	MDS Corporation	Jul. 22, 2005

## Group companies incorporated into ISO 14001 certification at MHI works or Head Office

	Location or company name	Date of issue (or registration)	MHI division or works
Domestic Group companies	Mitsubishi Heavy Industries Plastic Technology Co., Ltd.	Apr. 1, 2000	Iwatsuka Area (formerly, Industrial Machinery Division)
	Mihara Ryoju Engineering Co., Ltd, Information Systems & Electric Device Department	Oct. 8, 2004	Paper & Printing Machinery Division
	Ryoju Co., Ltd., Nagoya Branch	Oct. 22, 2004	Nagoya Aerospace Systems Work
	MHI Aerospace Production Technologies, Ltd.	Oct. 22, 2004	Nagoya Aerospace Systems Work
	Diamond Air Service Incorporation	Oct. 22, 2004	Nagoya Aerospace Systems Work
	Ryoju Co., Ltd., Shimonoseki Branch	Nov. 22, 2004	Shimonoseki Shipyard & Machinery Works
	Kanmon Dock Service, Ltd.	Nov. 22, 2004	Shimonoseki Shipyard & Machinery Works
	Shimonoseki Ryo-Jyu Engineering Co., Ltd.	Nov. 22, 2004	Shimonoseki Shipyard & Machinery Works
	Ryoju Co., Ltd., Nagoya Nishi Branch	Jan. 6, 2005	Iwatsuka Area (formerly, Industrial Machinery Division)
	Mitsubishi Heavy Industries Industrial Machinery Co., Ltd.	Jan. 6, 2005	Iwatsuka Area (formerly, Industrial Machinery Division)
	MHI Machine Tool Engineering Co., Ltd.	Feb. 25, 2005	Machine Tool Division
	Ryoju Co., Ltd., Kyoto Branch	Feb. 25, 2005	Machine Tool Division
	MHI Aero Engine Service Co., Ltd.	Apr. 11, 2005	Nagoya Guidance & Propulsion Systems Works
	MHI Logitech Company Limited	Apr. 11, 2005	Nagoya Guidance & Propulsion Systems Works
	MHI Diesel Service Co., Ltd.	May 12, 2005	Kobe Shipyard & Machinery Works
	Nuclear Plant Service Engineering Co., Ltd.	May 12, 2005	Kobe Shipyard & Machinery Works
	Shinyo Thermal Power Plant Service Engineering Co., Ltd	May 12, 2005	Kobe Shipyard & Machinery Works
	Sanshin-Tec. Ltd.	May 12, 2005	Kobe Shipyard & Machinery Works
	Mitsubishi Heavy Industries Tunneling Machinery & Geotechnology Co., Ltd	May 12, 2005	Kobe Shipyard & Machinery Works
	Mitsubishi Heavy Industries Parking Co., Ltd.	May 14, 2005	Yokohama Dockyard & Machinery Works
	Ryoju Co., Ltd., Yokohama Branch	May 14, 2005	Yokohama Dockyard & Machinery Works
	Ryoju Estate Co., Ltd., Yokohama Branch	May 14, 2005	Yokohama Dockyard & Machinery Works
	MHI Energy & Service Co., Ltd.	May 14, 2005	Yokohama Dockyard & Machinery Works
	Koryo Inspection & Service Co., Ltd.	May 14, 2005	Takasago Machinery Works
	Mitsubishi Heavy Industries Plant Construction Co., Ltd., Power Systems Service Headquarters	May 14, 2005	Takasago Machinery Works
	Koryo Engineering Co., Ltd.	May 14, 2005	Takasago Machinery Works
	Ryoju Co., Ltd., Takasago Branch	May 14, 2005	Takasago Machinery Works
	Nuclear Plant Service Engineering Co., Ltd., Takasago Division	May 14, 2005	Takasago Machinery Works
	MEC Engineering Service Co., Ltd.	Jun. 23, 2005	Hiroshima Machinery Works
	Hiroshima Ryoju Engineering Co., Ltd.	Jun. 23, 2005	Hiroshima Machinery Works
	Mitsubishi Heavy Industries Plant Construction Co., Ltd.	Jun. 23, 2005	Hiroshima Machinery Works
	Mitsubishi-Hitachi Metals Machinery, Inc.	Jun. 23, 2005	Hiroshima Machinery Works
	Ryoju Co., Ltd., Hiroshima Branch	Jun. 23, 2005	Hiroshima Machinery Works
	Sagami Logistics & Service Co., Ltd.	Sep. 13, 2005	General Machinery & Special Vehicle Headquarters
	Choryo Sempaku Kouji Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Ryoju Co., Ltd., Nagasaki Branch	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Choryo Inspection Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	MHI Oceanics Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Kowa Kogyo Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Choryo Control Systems Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Choryo Designing Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	MHI Maritech, Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Choryo Software Co., Ltd.	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Chiyoda Lease Company Limited	Sep. 22, 2005	Nagasaki Shipyard & Machinery Works
	Mitsubishi Heavy Industries Machine Tool Sales Co., Ltd.	Jan. 13, 2006	Machine Tool Division
	Ryoju Estate Co., Ltd., Department of Facilities Management Service	Apr. 6, 2006	Head Office
	Tamachi Bldg. Co., Ltd., Shinagawa Building Management Center	Apr. 6, 2006	Head Office
	MHI Personnel Staff, Ltd.	Apr. 6, 2006	Head Office
	MHI Tourist, Ltd.	Apr. 6, 2006	Head Office
	MHI Accounting Service, Ltd.	Apr. 6, 2006	Head Office
MHI Finance Co., Ltd.	Apr. 6, 2006	Head Office	
Dia Food Service Co., Ltd.	Apr. 6, 2006	Head Office	
Daiya PR Co., Ltd.	Apr. 6, 2006	Head Office	
Computer Software Development Co., Ltd.	Apr. 6, 2006	Head Office	
Advanced Reactor Technology Co., Ltd.	Apr. 6, 2006	Head Office	
Diamond Air Service Incorporation, Tokyo Branch	Apr. 6, 2006	Head Office	
E-Techno, Ltd.	May 12, 2006	Kobe Shipyard & Machinery Works	
Choryo Engineering Co., Ltd.	Aug. 21, 2006	Nagasaki Shipyard & Machinery Works	
Foods Ryowa Co., Ltd.	Nov. 27, 2006	Shimonoseki Shipyard & Machinery Works	
Mitsubishi Heavy Industries Bridge & Steel Structures Engineering Co., Ltd.	Aug. 2, 2007	Hiroshima Machinery Works	
Shinyo System Corp	May 1, 2008	Kobe Shipyard & Machinery Works	

## Responsibilities and Actions of MHI

### Commitment to the Global Environment

# Targets and Progress

#### Targets and progress in FY2007

O = Target achieved or progressing on schedule    △ = More effort required    X = Target not yet achieved

Item	Medium- or long-term target	Progress through FY2007	Evaluation
Reduced waste generation and emissions	By 2010, total waste generation reduced to 170,000 tons (greater than 20% reduction from 1992 level): to be achieved by conserving resources and reducing the purchase of materials	Total emissions: 159,000 tons 26.3% reduction from 1992 level	○
Reduced landfill waste disposal	By 2010, zero landfill waste disposal at all works to be achieved through reuse and recycling	Zero emissions achieved by the Paper & Printing Machinery Division (May) and Shimonoeki Shipyard & Machinery Works (Jan.); 9 works accomplished zero emissions (4 works remaining)	○
Elimination of equipment using PCBs	By 2010, total elimination of lighting ballasts and high-voltage equipment using PCBs	Replacement progressing as scheduled; for equipment using high concentrations of PCBs, registration (at Japan Environmental Safety Corporation) was completed ahead of schedule and a basic contract for disposal was signed	○
Reduced emissions of organochlorides	Zero atmospheric emissions of dichloromethane, trichloroethylene and tetrachloroethylene by 2010: to be achieved through total management and reduced release of organochlorides	Atmospheric discharge: 23.4 tons 91.1% reduction from 1996 level	△
Reduced CO <sub>2</sub> emissions	By 2010, 6% reduction in CO <sub>2</sub> emissions (from 1990 level): to be achieved through reduction efforts at all production plants	CO <sub>2</sub> emissions: 549,000 tons 16.3% above 1990 level	△
	By 2010, addition of solar power systems capable of generating 520 kW (1,000 kW in cumulative total)	Introduction of additional 720 kW to 12 plants at 9 works completed (1,090 kW in cumulative total)	○
Reduced fluorocarbon usage	By 2010, completely replace potentially ozone-depleting HCFCs with 100% ozone-safe HFCs, etc.	Emissions in fiscal 2007: 28.1 tons Efforts under way toward complete elimination in fiscal 2010	△
Environmental management system	Ongoing renewal of ISO 14001 certification at all domestic works	Renewal of ISO 14001 processed on continuing basis by 15 domestic works. ISO 14001 certification successfully obtained by Hiroshima Research & Development Center as the last of the 7 Research & Development Centers	○
Database for environmentally friendly management	By 2007, database developed on the company's environmental burden	Database system completed for tabulation of environmental performance data and environmental accounting, etc. Operation started in April, 2008	○
Promotion of environmental accounting	Continuation of environmental accounting; completion of online tabulation system by 2007		
Ongoing issuance of environmental reports	Continue issuance; ongoing content improvements	Issuance of <i>CSR Report</i> (Social and Environmental Report) in June, 2007	○
Promotion of green purchasing	Promoting the purchase of environmentally friendly products based on the company's own green purchasing guidelines	Green purchasing rate: 94.6%	△
Promotion of environmentally friendly design	Promotion through establishment of a working group to develop in-house standards for environmentally friendly product design	Developed a chemical substance management standard Applied simplified LCA tool to actual products	○



# Environmental Accounting

MHI quantitatively monitors its investments and costs for protecting the environment within the performance of the company's business activities and also calculates the relative benefits of these efforts. The company refers to the "Environmental Accounting Guidelines" published by the Ministry of the Environment. Since fiscal 2003, MHI has estimated the economic benefits (from reduced CO<sub>2</sub> emissions) generated when customers use the company's products.

## Cost of Environmental Protection

Overall, environmentally oriented investments and costs decreased in fiscal 2007 from the previous year, partially due to reduced R&D outlays. Economic advantages valued at a total of 3.8 billion yen were gained during the year, largely from income acquired through recycling and cost reductions achieved through energy saving.

## Estimated Reduction in CO<sub>2</sub> Emissions Due to Usage of the Company's Products

Recognizing the reduction of CO<sub>2</sub> associated with using the company products as an economic benefit for customers, MHI undertakes an annual estimate of the volume of CO<sub>2</sub> emissions reduced as a result of using MHI products. The most outstanding contribution was made

by nuclear power plants, which emit no CO<sub>2</sub>. In fiscal 2007, reduced emissions through wind-power generation, which is attracting worldwide attention as a means for combating global warming, increased significantly.

## Environmental Protection Costs and their Economic Benefit

(Unit: millions of yen)

Cost category	Activities in FY2007	Investment		Cost		Economic benefit		Environmental protection benefit	
		2006	2007	2006	2007	2006	2007		Description
1. Production activities		2,517	1,667	4,544	4,570	4,435	3,858		
(1) Pollution control	Maintenance and operation of wastewater and flue-gas treatment systems	1,433	846	1,804	2,155	255	0	Reduction in wastewater treatment costs	Reduced emissions of air and water pollutants
(2) Global environmental protection	Energy savings	549	615	253	257	695	131	Cost reduction from energy savings	Reduced energy input
(3) Recycling	Reduced waste generation, recycling	535	206	2,487	2,158	3,485	3,727	Income derived from recycling, cost reduction from reduced waste generation	
2. Upstream and downstream costs	Recycling of household electrical appliances and container packaging	0	2	42	32	—	—		
3. Management activities	Development of environmental management systems, ISO Office, publication of <i>MHI Social &amp; Environmental Report</i>	23	154	994	1,111	—	—		
4. R&D	Development of environmentally friendly products	1,486	1,204	7,937	6,390	—	—		Development of diverse environmentally friendly products
5. Public and social activities	Support of environmental protection initiatives, greening activities	1	7	365	281	—	—		
6. Environmental remediation	Soil remediation measures	1	401	1,456	186	—	—		Prevention of oil and chemical spills
	<b>Total</b>	<b>4,028</b>	<b>3,435</b>	<b>15,338</b>	<b>12,570</b>	<b>4,435</b>	<b>3,858</b>		

Total capital investments in FY2007: 135.6 billion yen. Portion related to the environment: 3.4 billion yen (2.5%).  
Total R&D outlays in FY2007: 103.9 billion yen. Portion related to the environment: 7.5 billion yen (7.2%).

## Economic benefit for customers (CO<sub>2</sub> reduction from using MHI products in FY2007)

Product	CO <sub>2</sub> reduction (1,000 tons)	Amount (millions of yen)	Basis of calculation	
Nuclear power plants	50,141.94	473,841	Estimates based on actual output generated in FY2007 by nuclear power plants built by MHI <sup>*1, *2</sup>	
Thermal power generation	Conventional thermal plants	29.00	274	Estimates based on MHI's actual delivery record in 2007 <sup>*1, *2</sup> (compared to earlier MHI plants) Generation efficiency up 5.53% over 1990 level
	Gas turbine combined cycle plants	2,638.00	24,929	Estimates based on MHI's actual delivery record in 2007 <sup>*1, *2</sup> (compared to earlier MHI plants) Generation efficiency increased 14.92% over 1990 level
	Industrial power plants (biomass power generation)	174.00	1,644	Estimates based on MHI's actual delivery record in 2007 <sup>*1, *2</sup>
Geothermal power plants	274.00	2,589	Estimates based on MHI's actual delivery record in 2007 <sup>*1, *2</sup>	
Renewable energy power generation (wind and photovoltaic power generation)	327.64	3,096	Estimates based on MHI's actual delivery record in FY2007 <sup>*1, *2</sup>	
Gas engine cogeneration systems	135.58	1,281	Estimates based on MHI's actual delivery record in FY2007 of MACH-30G gas engines and GSR series Miller cycle gas engines <sup>*1, *2, *3</sup>	
Centrifugal liquid chillers	155.24	1,467	Estimates based on MHI's actual aggregated delivery record up to FY2007 (compared to earlier models) <sup>*1, *2</sup>	
Forklift trucks	41.83	395	Estimates based on sales record of "GRENDIA" in FY2007 (compared to earlier models) <sup>*1</sup>	

\*1 The Ministry of the Environment's pro forma value of 9,450 yen per t-CO<sub>2</sub> was used in calculating monetary amounts.

\*2 Comparisons were made against the volume of CO<sub>2</sub> emissions per kWh of electricity used in Japan (=0.379 kg-CO<sub>2</sub>: actual result reported for FY2001 by the Federation of Electric Power Companies of Japan).

\*3 In addition to<sup>\*2</sup>, comparisons concerning calorific values were made against heavy fuel oil A-burning boilers with an efficiency rating of 90%, assuming total utilization as steam and hot water.

# Countermeasures against Global Warming

Having already implemented significant measures to cut CO<sub>2</sub> emissions at numerous plants, including the adoption of cogeneration systems and equipment enabling outstanding energy savings and superlative operating efficiency, MHI is working on reducing CO<sub>2</sub> emissions from its production facilities to ensure achievement of the 6% reduction that is Japan's target under the Kyoto Protocol.

## Promoting Measures to Conserve Energy and Reduce CO<sub>2</sub> Emissions

### Reviewing evaluation methods for CO<sub>2</sub> emission reduction targets

Although MHI's CO<sub>2</sub> reduction target—6% by 2010 against 1990 levels—was intended to represent the single year value in 2010 in line with the policy of the Federation of Economic Organizations, the company decided to change the period of calculation to align with the Kyoto Protocol, that is, it adopted the goal of reducing CO<sub>2</sub> by an average of 6% against 1990 levels for the five years from fiscal 2008 to 2012, as defined for the first commitment period of the Kyoto Protocol.

Following this change, the company set target values for individual headquarters, divisions and works as nonbinding goals for voluntary reduction efforts for each of the five years from fiscal 2008 to 2012 and strengthened actions to accomplish these targets.

### Further improvement required to meet target

In fiscal 2007 MHI's CO<sub>2</sub> emissions resulting from energy use were 559,000 tons, 16.3% above the level of 1990, the baseline year. This is substantially higher than the ultimate target, and therefore

further improvement is necessary.

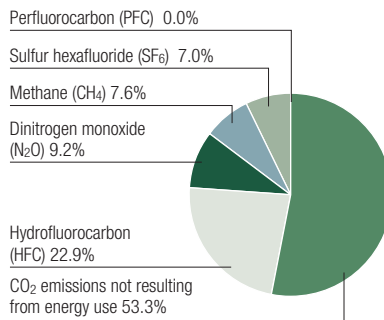
The increase is largely attributable to the increase of energy-consuming equipment due to the construction of new plants for aircraft and power systems, and the increased energy used in conjunction with higher production due to such factors as the introduction of new facilities.

### Compilation of greenhouse gas emissions (excluding CO<sub>2</sub> emissions from energy use)

MHI has been compiling greenhouse gas emissions (excluding CO<sub>2</sub> emissions from energy use) starting from fiscal 2006 based on the applicable law.

Actual emission record of fiscal 2007 was 9,500 tons (CO<sub>2</sub> equivalent), that is, 6,500 tons less than in fiscal 2006.

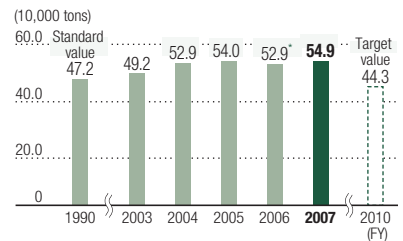
### Breakdown of greenhouse gas emissions (excluding CO<sub>2</sub> emissions from energy use)



### Purchase of emission credits and procedures

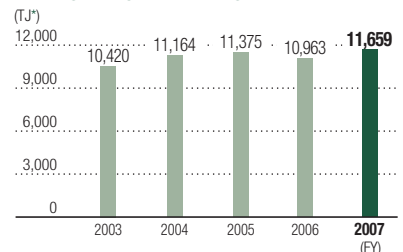
MHI is pursuing the purchase of emission credits to offset the increased emissions

### Change in CO<sub>2</sub> emissions



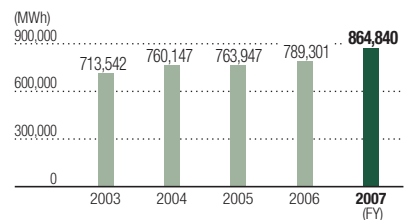
\* An error was reported in the figures for fiscal 2006. "52.7" should be "52.9."

### Change in gross energy input



\* TJ (tera joule) = 1 trillion joules (1,000,000,000,000J)

### Change in electricity purchases



## TOPICS

### Amorphous solar cell panels produced by MHI installed at its works nationwide

MHI decided to install additional amorphous solar cell panels in fiscal 2007 at works that had already installed some panels (for individual plants not yet equipped) as well as at works where they had not yet been installed at all (Air-Conditioning & Refrigeration, Paper & Printing Machinery, Machine Tool, Nagoya Aerospace, and Nagoya Guidance & Propulsion). Under this policy, the company worked on a joint research project with NEDO to introduce 720kW solar power generation system to 9 works (12 plants). Installation at all works was completed by February 2008 and power generation using the panels was started. As a result, total introduced wattage reached 1,090kW as of the end of fiscal 2007. The breakdown by works where introduction was completed in 2007 is shown at right.

An additional 800kW is scheduled to be introduced in fiscal 2008.



Solar cell panels installed in the Paper & Printing Machinery Division

#### Introduction at works where panels had not yet been installed (total: 150kW)

Air-Conditioning & Refrigeration (20kW), Paper & Printing Machinery (20kW), Machine Tool (50kW), Nagoya Aerospace (40kW) and Nagoya Guidance & Propulsion (20kW)

#### Additional introduction at works with panels already installed (total: 570kW)

Nagasaki Shipyard (510kW), Kobe Shipyard (10kW), Shimonoseki Shipyard (30kW) and Hiroshima Machinery (20kW)

stated above based on the policy of using emission credits to compensate for increases and shortfalls due to such factors as the construction of new plants so the company can achieve its voluntary CO<sub>2</sub> reduction target. MHI is mainly working on joint implementation and clean development mechanism of the Kyoto mechanisms, based on the total credits required for the five years from 2008 to 2012.

For a company to use tradable credits for accomplishing its voluntary target, it must transfer credits without compensation from its own dedicated (management) account to the redemptive account of the government. Therefore, MHI applied to open its own dedicated (management) account and approval was granted in October 2007.

### Purchase of Green Power

MHI has contracted with Japan Natural Energy Co., Ltd. (JNE) to purchase 1MkWh of wind-generated power from JNE each year for a period of 15 years starting in April 2002.

MHI uses this clean power at its Head Office and at the Mitsubishi Minatomirai Industrial Museum.



Green power certificate

## Measures to Curb Energy Use in Transport

### Response to the revised Act Concerning the Rational Use of Energy and measures to reduce energy use in transport

In March 2007, MHI launched a project team to determine the status of energy use in transport and explore ways for reducing it.

In fiscal 2007, its first year, the project team held four meetings to learn the details of the revised Act Concerning the Rational Use of Energy and to identify ways for reducing energy use in transport. Discussions at the meetings focused on energy consumption standards and calculation methods, as well as action plans for reducing energy use, for example, promoting modal shifts and improving loading ratio. As a result, the ton-kilo method, which is obtained by multiplying weight times transportation distance, was

### Total traffic volume and CO<sub>2</sub> emissions in fiscal 2006

Total traffic volume	193 million ton-kilo
CO <sub>2</sub> emissions	26,000 tons

adopted as the specific energy consumption standard. The actual record of fiscal 2006 calculated based on the ton-kilo method was reported to the Ministry of Economy, Trade and Industry at the end of September 2007.

In the future, the company will steadily implement its action plan for reducing energy consumption by more than 1% annually, the legally mandated target. Results of fiscal 2007 were reported to the Ministry of Economy, Trade and Industry in June 2008.

### Energy-saving activities in offices

In June 2005, MHI joined the national Team Minus 6% campaign promoted by the Japanese Ministry of Environment. Now, in addition to "Cool Biz" in summer (office air-conditioning systems set to 28°C, employees do not need to wear ties) and "Warm Biz" in winter (office air conditioning systems set to 20°C) the company has implemented diverse energy-saving activities, including thinning out the operation of elevators and introducing high-efficiency lighting.



## TOPICS

### CO<sub>2</sub> reduction initiatives are promoted at many works.

#### Nagasaki Shipyard & Machinery Works

#### Fuel substitution and facility improvements to reduce environmental burden from metal heating furnace

Nagasaki Shipyard & Machinery Works uses large metal heating furnaces that run on heavy fuel oil A for manufacturing land and marine boilers. In fiscal 2007, the works changed the fuel for these furnaces from heavy fuel oil A to city gas and improved combustion facilities. As a result, CO<sub>2</sub> emissions due to operation of the metal heating furnace were reduced by about 40% and levels of soot concentration and sulfur oxides were significantly lowered at the same time.



Above: Full view of a metal heating furnace  
Upper right: Metal heating furnace for which fuel was changed  
Lower right: Burner part



#### Hiroshima Machinery Works

#### Controlling CO<sub>2</sub> emissions from electricity loss by improving the energy efficiency and conservation of distribution transmitters

In an effort to reduce CO<sub>2</sub> emissions, Hiroshima Machinery Works is working to reduce no-load loss, which is electricity consumed by just having the power of a distribution transmitter turned on.

In fiscal 2007, two measures were implemented for transmitters handling 35,225kVA out of the 115,773kVA at the Hiroshima Machinery Works. First, transmitters were replaced with energy-saving units to reduce no-load loss to one-third the level of conventional units. Second, excessive transmitter capacity was moderated. As a result, the works was able to reduce CO<sub>2</sub> emissions due to usage from distribution transmitters from 980 tons to 461 tons.



Energy-saving distribution transmitters



# Resource Conservation and Waste Management

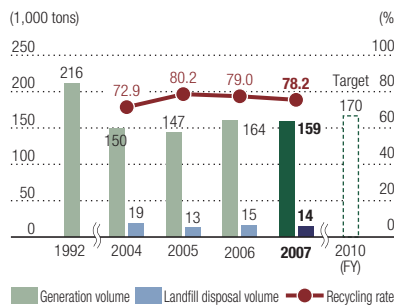
MHI is taking the initiative to achieve zero emissions at all company facilities by 2010. The company vigorously sorts all recyclables, works to explore new recycling contractors, and encourages the sharing of information on recycling operators, while at the same time holding company-wide meetings on how to achieve zero emissions.

## Curbing Waste Generation, Release and Disposal

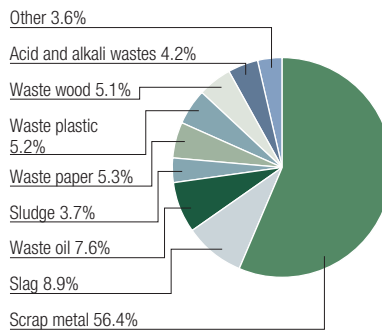
MHI previously set a target for reducing the volume of the company's waste to less than 170,000 tons by 2010, and implemented initiatives toward that goal to reduce waste output and promote recycling within the various works. As a result, the target was achieved in fiscal 2007 with a waste output of 159,000 tons.

In terms of its target to achieve zero waste emissions at all MHI works by 2010, the Paper & Printing Machinery Division (including Plant and Transportation Systems Engineering & Construction Center (Mihara)) accomplished this target in May 2007, followed by the Shimonoseki Shipyard & Machinery Works in January 2008, joining the seven works (Yokohama Dockyard & Machinery Works, Takasago Machinery Works, General Machinery & Special Vehicle Headquarters, Nagoya Guidance & Propulsion Systems Works, Air-Conditioning & Refrigeration Systems Headquarters, Iwatsuka Area and Machine Tool Division) that had already accomplished the goal.

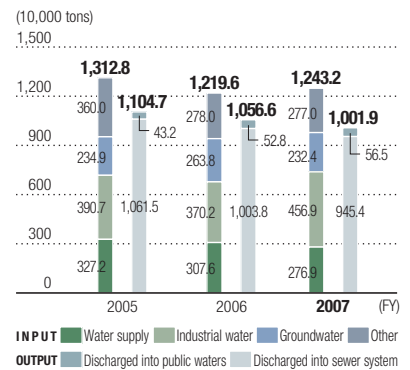
### Waste generation/landfill disposal volumes and recycling rate



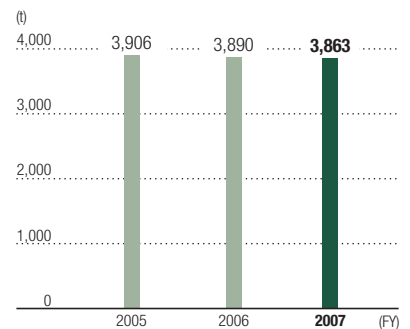
### Waste generation by material



### Water usage and discharge



### Paper usage



## TOPICS

### Two Works achieve zero emissions

#### Paper & Printing Machinery Division, Plant and Transportation Systems Engineering & Construction Center (Mihara)

We had already been working on zero waste emissions and advancing recycling at the Paper & Printing Machinery Division, Plant and Transportation Systems Engineering & Construction Center (Mihara). Our challenge was dealing with sludge that was difficult to recycle. We ultimately succeeded in recycling grinding sludge and met the standard of zero emissions for MHI at the end of April 2007.

During the course of promoting zero emissions, we were concerned that the costs of waste treatment might increase. We were able, however, to reduce costs through comprehensive operational improvements, including better transporting methods, leading to the receiving of an award, which doubled our satisfaction.

#### Shimonoseki Shipyard & Machinery Works

Until a few years ago, we used to see a large volume of unburnable garbage in the collection box at the Shimonoseki Shipyard & Machinery Works. We started sorting out earth and sand and waste plastic, separating them into more categories and then looking for recyclers. As a result, we were able to recycle earth and sand (sludge) for roadbed material and waste plastic for fuel and other uses, leading to our announcement of achieving zero emissions on January 31, 2008.

We intend to maintain zero waste emissions and further contribute to the creation of a recycling society.



Staff members in charge at the Paper & Printing Machinery Division



Staff members in charge at the Shimonoseki Shipyard & Machinery Works

# Management of Chemical Substances

MHI takes every possible action to manage the chemical substances required for its production processes in ways that guarantee safe usage and storage. All works make effective use of MSDS to ensure complete safety for both customers and company employees. Efforts are also being taken to curb the use and emissions of organochlorides by developing alternative manufacturing processes and switching to alternative substances.

## Curbing the Use and Emissions of Chemical Substances through Proper Management and Use of Alternatives

### Reducing organochlorides

Despite the steady progress achieved toward zero atmospheric emissions of tetrachlorethylene, trichloroethylene and dichloromethane, the company had only reduced emissions by 91.1% as of the end of fiscal 2007. This shortfall was due to the increased usage of dichloromethane, a removal agent, in tandem with expanded production volumes. We are continuing to evaluate the attack property on products of non-dichloromethane removal agents toward settling on alternative agents. We will also explore other methods for achieving zero atmospheric emissions by 2010.

### Emissions of substances subject to PRTR\*

In fiscal 2007, MHI released a total of 2,370 tons of substances subject to PRTR compliance (excluding dioxins).

Roughly 95% of these emissions consisted of xylene, toluene and ethylbenzene, which are primarily used in painting and cleaning applications. Although the company is working to reduce these emissions through measures such as switching to water-based paints, the task is proving to be a significant challenge. This is particularly true for xylene, which is used for painting ships, since shipowners typically specify the use of xylene. This preference, along with the increasing volume of shipbuilding, is making it difficult to reduce the use of this substance.

\* PRTR (Pollutant Release and Transfer Register): The PRTR system requires publication of the sources and emission volume of toxic chemical substances and the amounts of such substances removed from manufacturing plants.

### Plan for Disposing of Equipment Using PCBs

As of March 2006, MHI had already registered the disposal of equipment that uses PCBs (polychlorinated biphenyls), either currently in use or stored at its domestic works, with the Japan Environmental Safety Corporation (JESCO), a special

entity wholly funded by the Japanese government, and the company signed a consigning contract for disposal in January 2007.

Today the company is systematically replacing equipment using PCBs to completely eliminate its use by 2010.

### Development and use of a guideline for managing chemical substances contained in products

As an outgrowth of environmental laws and regulations enacted in Europe—including RoHS\*, ELV and REACH—there is a growing call across the globe today for the corporate sector to properly manage chemical substances contained in its products as part of their social responsibilities. The proper management of chemical substances requires manufacturers to engage in green procurement, that is, purchasing materials and parts from suppliers who are able to verify that the products do not contain specified chemical substances.

A guideline for managing chemical substances contained in our products was created for chemical substances contained in air-conditioners, which are on the current list of products subject to RoHS scrutiny, at the Air-Conditioning & Refrigeration Systems Headquarters, and

the company is preparing its response to the RoHS Directive in collaboration with MHI suppliers.

MHI continues to pursue green procurement, strengthening the company's management of chemical substances contained in its products, and working more closely with suppliers.

\*RoHS Directive: This regulation prohibits the import into Europe of electrical and electronic products containing any of six specified hazardous substances (such as cadmium, hexavalent chromium and lead).

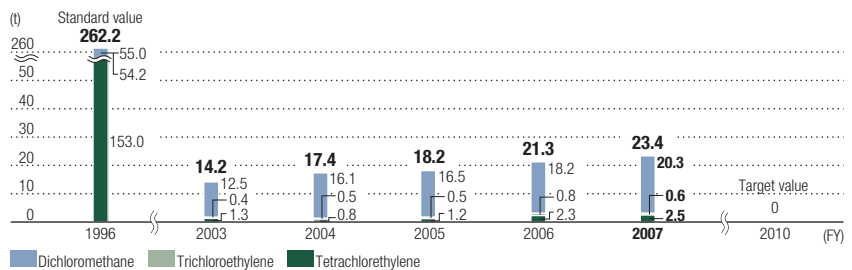
### Setting targets for reducing and controlling VOCs (Volatile Organic Compounds)

With the goal of reducing environmental burdens associated with chemical substances, MHI has incorporated into its mid-and-long-term plan voluntary reduction targets for three organochlorides.

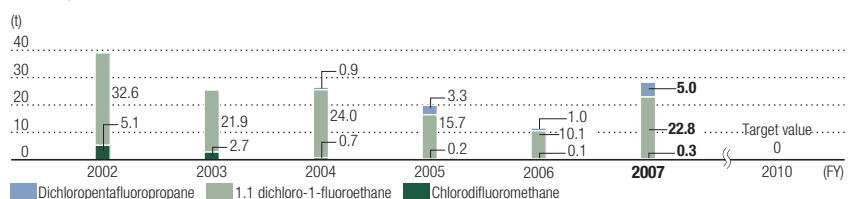
To further advance its activities for reducing environmental burdens from the perspective of CSR, the company set a new voluntary target for reducing atmospheric emissions of VOC in 2010 by 30% from the 2000 level, focusing on xylene, toluene and ethylbenzene, which are emitted in large volumes.

In fiscal 2008, MHI will set up a VOC Reduction Promotion Sectional meeting to explore specific reduction plans while advancing effective actions.

### Atmospheric emissions of organochlorides



### Change in HCFC\* emissions



\* HCFCs (Hydrochlorofluorocarbons): The Montreal Protocol that regulates ozone-depleting substances stipulates that the production of these substances must cease by 2020.

# Responsibilities and Actions of MHI

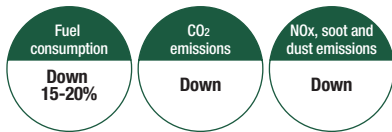
## Commitment to the Global Environment

### Easing the environmental burden through business operations and products

#### Large-size container ship adopts world's strongest steel and MHI's advanced shipbuilding technologies; reduces fuel consumption and eases environmental loads

As container ships have grown in scale in recent years, thick steel plates have come to be used in their hulls; but thicker plates erode propulsive performance and transport efficiency. Now, MHI has become the first shipbuilder to adopt steel with a yield stress of 47kgf/mm<sup>2</sup>, the highest level of tensile strength in steel used in merchant ships. By curbing steel plate thickness this way, MHI has achieved hulls of lighter weight. Also, by integrating its newest technologies and knowhow, including advanced propellers of outstanding propulsive performance and an electronically controlled fuel injection system, MHI has developed a large-size container ship that runs on a main engine of 11 cylinders, one less than normally.

MHI's new container ship consumes 15-20% less fuel than conventional ships, enabling a reduction in CO<sub>2</sub> emissions. Plus its new fuel injection control system is outstandingly effective in curbing emissions of NO<sub>x</sub>, soot and dust.



Large-scale container ship

#### MHI licenses CO<sub>2</sub> recovery technology, with world-class recovery capacity of 450 tons/day, to petrochemical companies

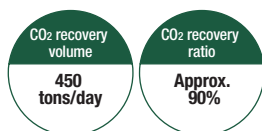
CO<sub>2</sub> recovery systems incorporating technology jointly developed by MHI and The Kansai Electric Power Co., Inc. are presently in operation in Japan, Malaysia and India at four chemical plants producing urea fertilizer and methanol. The proprietary technology separates and recovers CO<sub>2</sub> contained in the flue-gas emissions of petrochemical plants, and diverts it for use in boosting urea and methanol production.

In 2007, MHI signed two new agreements to license this CO<sub>2</sub> recovery technology to petrochemical producers in Bahrain and India. Recovery capacity is expected to be 450 tons/day, one of the highest levels in the world, with a recovery ratio of approximately 90%. The new plants are slated for completion in 2010 and 2009, respectively.

As an innovation that can help to combat global warming, high hopes are also held for the new CO<sub>2</sub> recovery technology in applications in carbon dioxide capture and storage (CCS) and enhanced oil recovery (EOR). In EOR, CO<sub>2</sub> is injected into oil reservoirs suffering reduced productivity to boost their production output.



CO<sub>2</sub> recovery plant



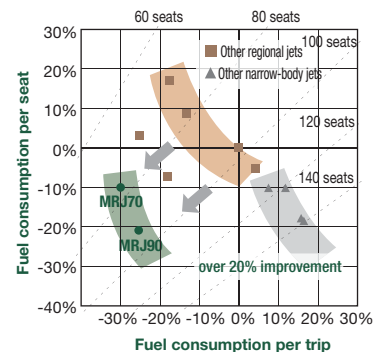
#### MRJ—a next-generation regional jet to feature advanced technologies, materials and engine—under development for top-class operational economy and environmental benefit

On March 28, 2008 MHI officially announced the program launch to develop the Mitsubishi Regional Jet (MRJ) as a next-generation regional jet.

The MRJ is to be a state-of-the-art jet seating about 70 to 90 passengers and offering top-class operational economy along with outstanding cabin comfort. An advanced aerodynamic design and the use of composite materials will reduce the weight, while the adoption of a supremely efficient, game-changing new engine will enable an over 20% reduction in fuel consumption compared to current jets in the same class. The incorporation of high-reliability systems and composite materials highly resistant to fatigue and corrosion will result in lower maintenance costs.



MRJ



#### Newly developed battery-powered forklift trucks achieve longer operating time and significant energy savings

In March 2008 MHI undertook a complete remodeling of its counterbalanced battery-powered forklift truck lineup with the announcement of nine models in the new ELDiA series. Load capacities range from 1.0 to 3.5 tons.

The new series consists of state-of-the-art battery-powered forklift trucks developed to meet the environmental demands of their workplaces and to provide load capacities on a par with those of engine-powered trucks. They feature an innovative system in which, through a combination of AC control and a high-output motor, power is recharged while the forklift truck is in operation. The new system enables power performance up to the standards of engine-powered models and longer operating time, while also achieving a significant 20% reduction in energy consumption compared to previous offerings.

MHI also has abundant lineups of electronically controlled models powered by gasoline or diesel engines and offering environmental and safety performance up to world standards. In this way, MHI can provide a forklift truck suitable to any work environment.

#### Five energy-recharging modes



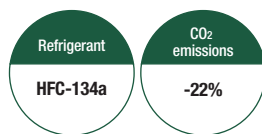
ELDiA FB20P battery-powered forklift truck



## Supporting district heating/cooling at Minato Mirai 21 with one of the world's most energy-efficient centrifugal chillers

Since 1989, district heating and cooling has been under way at Minato Mirai 21, the vibrant new sub-center of Yokohama, one of Japan's leading port cities. MHI has supported the supply of heating and cooling to this area with the delivery to date of 14 chillers.

In November 2007 a decision was reached calling for an additional delivery of the company's AART-400PL, a hermetic centrifugal chiller featuring the world's largest cooling capacity: 4,000 refrigeration tons (14,065kW). The AART-400PL is a high-efficiency, energy-saving system achieving the world's highest level of energy consumption efficiency, made possible through the adoption of HFC-134a—which has an ozone-depletion coefficient of 0—as the refrigerant and a near 22% reduction in CO<sub>2</sub> emissions compared to earlier systems. Year-round use of the AART-400PL will cut CO<sub>2</sub> emissions by an amount equivalent to the volume absorbable by approximately 228 hectares of Japanese cypress tree.

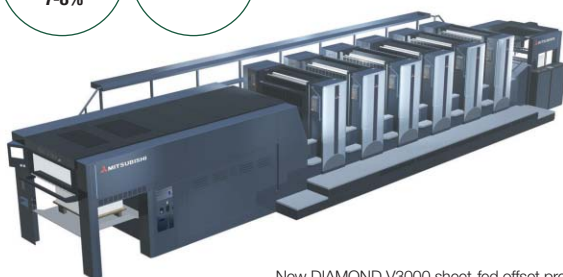
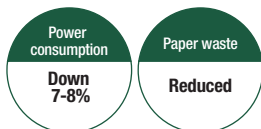


AART series high-efficiency electric centrifugal chiller (standard model shown)

## New sheet-fed press offers higher printing quality, stability and operating ratio while greatly reducing power consumption and paper waste

For the first time in seven years, MHI has wholly revamped its sheet-fed presses—used to print posters, product brochures and other high-quality pieces—with the development of the "DIAMOND V3000," a new model targeting maximum improvement in operating ratio. While carrying on the basic performance of MHI's earlier presses renowned for their high quality and stability, the DIAMOND V3000 features a totally new design and new materials enabling substantial improvements in productivity and operating ease.

The new model achieves significant reductions in make-ready time, lubricating time and maintenance downtime, and is effective in reducing power consumption and paper waste. It also eliminates printing glitches such as oil splash, sheet misalignment and doubling, offers higher shielding against electromagnetic waves and noise, and reduces adverse impact on workers and peripheral electronic devices.

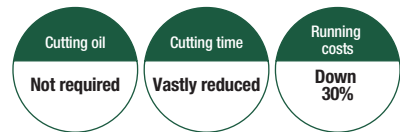


New DIAMOND V3000 sheet-fed offset press

## "GE" dry gear-cutting machines enhanced; series renowned for high precision, easy use and response to environmental demands

Gear-cutting machines—equipment for cutting the gear "teeth" used in motor vehicles and machines of all kinds—earlier used large amounts of cutting oil during gear-hobbing in order to prevent tool wear and remove cutting chips, causing various problems such as oil splash, oil mist and the need to treat oil waste. Then in 2003 MHI completed the world's first "dry" gear-hobbing system—the "GE Series"—which uses no cutting oil whatsoever. The series quickly gained renown for its high precision, ease of usage and outstanding response to environmental needs, and it has been adopted on numerous gear-hobbing lines.

In July 2007 MHI expanded the scope of dry-cutting capability with the addition of the GEO6A, a new model that responds to the smallest gear-cutting tasks. The GEO6A, when used in combination with MHI's SuperDry II Hob, a high-precision cutting tool, shortens cutting time significantly and reduces running costs by some 30% (tool costs excluded).



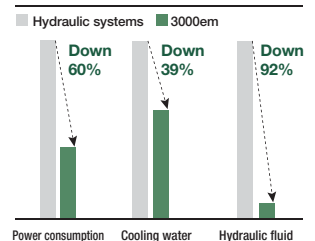
GEO6A Dry Cut Hob

## Injection molding machine enabling high-precision molding of large-size, complexly shaped plastic products, with energy saving and minimum footprint

Until now, injection molding machines for making plastic products and parts have primarily been hydraulic; but in recent years a shift has been under way toward electric systems, which are both clean and outstandingly energy-efficient. In the case of large-size units exceeding the 1,000-ton class, however, conversion to electric equipment has been hampered by the need for even longer overall machine lengths. As such, development has been eagerly awaited of a large-size electric injection molding machine that requires less space but is capable of stable, high-precision, high-quality molding of large, complexly shaped products such as bumpers and other large car parts.

Mitsubishi Heavy Industries Plastic Technology Co., Ltd. has now responded with development of an ultra-large-size electric injection molding machine that is environment-friendly (energy-saving and requiring less cooling water and hydraulic fluid) and features the world's smallest footprint (22% shorter machine length), but capable of coping with 3,000-ton class needs. Already the new system is contributing to higher production efficiency and reduced environmental loads in the auto industry.

### Reduced environmental loads



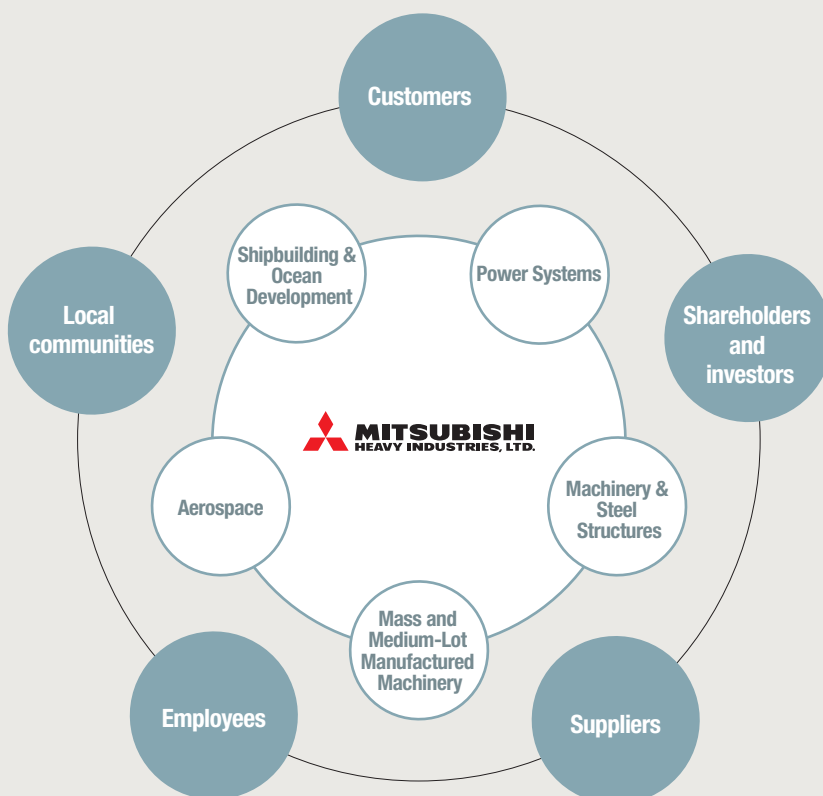
3000em

## Responsibilities and Actions of MHI

# Commitment to People and Society

MHI maintains relationships with diverse populations in various regions and communities in the course of developing and manufacturing products and technologies that are essential for social infrastructures and industry as well as the day-to-day life of people across the world.

To fulfill its corporate responsibility as a social and public entity, MHI has been pursuing its business operations with due consideration for its diverse stakeholders.



# Commitment to People and Society

## Commitment to Our Customers

As clearly laid out in its creed—"We strongly believe that the customer comes first and that we are obligated to be an innovative partner to society"—MHI conducts campaigns to ensure safety and improve the quality of its products and to enhance customer satisfaction through continuous improvement activities focused on developing products based on the customer's point of view.

### Enhancing Product Safety

#### Product safety project

Since fiscal 2005, the entire company has worked to reinforce and broaden activities to guarantee product safety. The Legal Department and the Technical Headquarters Production System Innovation Planning Office (currently, the Production System Innovation Planning Division) serve as the secretariat for this product safety project.

In this project, the company's products are grouped into three categories: mass and medium-lot manufactured products, build-to-order components, and build-to-order plants. Product safety activities including risk assessment and educational activities such as the improvement of instruction manuals are undertaken at individual works based on this classification.

MHI also shares useful product safety information, such as revised laws and activities conducted by other companies.

We will continue to implement product safety activities in fiscal 2008 so that customers can continue to use our products with confidence.

#### Managing Board for Innovation in Nuclear Business

On August 9, 2004, a break occurred in the secondary piping of Unit 3 in the

Mihama power station of Kansai Electric Power Co., Inc. Positioning this accident as the starting point for reforming its entire corporate operations, MHI has been working to improve its corporate culture and organizational climate related to nuclear safety. In December 2004, the Managing Board for Innovation in Nuclear Business chaired by the President was set up to powerfully advance these improvements. The Board has been implementing company-wide efforts in concert with corporate departments and actively disclosing progress through a variety of channels, including the company's website.

In fiscal 2007, the following actions were taken in the Nuclear Energy Systems Headquarters, Kobe Shipyard & Machinery Works and Takasago Machinery Works to instill safety awareness in every member of the organization.

In fiscal 2008, even as we carry forward current activities, we will actively

take up new themes, including root cause analysis of nonconformity. MHI seriously considers feedback from power companies and third-party inspection institutes and will steadily implement internal reforms under the leadership of the Managing Board for Innovation in Nuclear Business.

**URL** Internal reforms to instill a sense of security and confidence in nuclear power  
<http://www.mhi.co.jp/notice/nuclear.html> (in Japanese)

#### Response to the Consumer Product Safety Law

The revised Consumer Product Safety Law went into force on May 14, 2007, and manufacturers of consumer products have been mandated to report product accidents to the national government. To ensure legal compliance, the Air-Conditioning & Refrigeration Systems Headquarters released its reporting channels, deadlines, and other information in the form of operating guidelines for reporting crisis management. MHI has established a structure for quickly and effectively responding to incidents involving its products.

#### Identifying the cause of an F-2 aircraft accident and developing preventive measures

On October 31, 2007, an F-2 aircraft that was undergoing inspection and repair at Nagoya Airport crashed and burned immediately after taking off for final testing. MHI accepted the report of the accident investigation committee of the Ministry of Defense, and implemented countermeasures including: conducting special inspection of all of its aircraft, redesigning the component that caused the accident, and strengthening the quality management structure. The company has followed through to see that these preventive measures are thoroughly completed.

Looking ahead, we will work even harder in the area of aircraft safety to ensure this same oversight cannot happen again and thereby regain the full trust and confidence of customers and related authorities.

#### Actions in fiscal 2007

- Quality management activities, including the inspection and improvement of business processes to ensure the reliability of operations and prevent nonconformity
- Maintenance proposals to power companies in response to the aging of nuclear power plants
- Continuing compliance training to further raise the awareness of those involved in the nuclear power business

## TOPICS

### Developing a unique interlock mechanism to prevent forklift truck accidents

MHI pursues the safety performance of products to prevent forklift truck accidents. As a part of these efforts, the company developed a proprietary Integrated Presence System (IPS), which improves safety during operation by automatically immobilizing mast motion as well as the forward or backward movement of the vehicle when the operator leaves the seat.



Lift, tilt and travel levers (torque converter vehicle) will not function when the operator is not seated.



# Commitment to People and Society

### Enhancing Customer Satisfaction (CS)

#### Pursuing products and services that meet customer expectations

The customer always comes first at MHI.

Customer needs, especially in recent years, have become increasingly diverse and sophisticated. In this environment, we believe our most important task for prospering in the 21st century is to constantly review our products and services from the customer's perspective and provide high-value-added products and services that meet expectations.

Based on this approach, each headquarters and division is implementing specific CS activities according to the respective business operations.

A business that does not satisfy its customers is simply not sustainable. Every member of the company will place top priority on what we contribute to customers and, moreover, to society at large, recognizing that everything leads back to the customer and society. We will steadfastly cultivate a management mindset that takes into consideration the customer's point of view.

#### Implementing training programs to raise CS awareness

MHI believes that constantly reinforcing the CS awareness of every employee is absolutely essential for firmly establishing a customer-oriented corporate structure. Toward this end, we offer a variety of educational opportunities, including basic CS training and marketing.



Basic CS training



Training in marketing

#### Marketing case study exchange meetings share the achievements of individual departments

To maintain a keen and steadfast focus on the customer throughout its business operations, MHI has been convening marketing case study exchange meetings since March 2004 to share information on marketing efforts among individual departments and to discuss marketing challenges and actions across the entire company.

The fourth exchange meeting was held in September 2007, and approximately 85 strategists and managers who develop strategies for business, product planning and sales presented four marketing case studies, followed by a lively exchange of ideas. We will further advance our efforts to receive feedback from customers and the market through these gatherings and to provide products and services that satisfy them.

## TOPICS

### Paper & Printing Machinery Division Impress customers through deepened communication

The Paper & Printing Machinery Division is taking steps in its newspaper offset press business to develop good relationships with customers by enhancing communication, responding more quickly and proactively disseminating information.

The division sponsors events with customers invited to observe trial operations, such as final bolt fastening ceremonies or machine configuration work, in the division so they can see the plant at important stages of operation. The division builds closer communications beyond issuing instructions for keeping equipment in good operating condition to include early briefings on new functions and printing test procedures while garnering feedback from customers. Longer-term projects involve issuing progress reports and underscoring the commitment of those in charge.

We will continue to pursue these efforts to develop equipment in partnership with customers and further enhance communication to build a solid foundation of trust.



Manufacturing/Working Department Report to report progress with comments from those in charge



Inviting customers to observe important stages of work and provide feedback

# Commitment to Our Shareholders and Investors

MHI works to forge relationships of trust with shareholders and investors by increasing the soundness and transparency of its management, accurately and promptly disclosing information, expanding opportunities to communicate with shareholders and investors.

## Expanding Opportunities and Communication Platforms

### Actively disseminating information through media, events and websites

MHI participates in events held by securities firms for individual investors in addition to actively cooperating in interviews for books published for this audience.

In January 2004, the company opened a section on its website entitled, "For Individual Investors," to provide easy-to-understand explanations of its business and performance.



### Business and planning briefings

In response to demand from investors and analysts for greater details on the overall status and plans of individual businesses, MHI holds meetings with analysts and fund managers in addition to semi-annual performance briefings.

The company also holds briefings at individual divisions and headquarters. In fiscal 2007, business briefings were held for Transportation Systems in May; Nuclear Energy Systems in July; Air-Conditioning & Refrigeration Systems, Paper & Printing Machinery, and Machine Tools in September; and Shipbuilding & Ocean Development in March. The content of these briefings can be viewed on the "Investor Relations" section of the corporate website.

## Plant tours for shareholders

The company has been conducting semi-annual plant tours since March 2005 to deepen shareholder understanding of its business activities.

In fiscal 2007, the sixth tour was held at the Takasago Machinery Works in September to introduce its gas turbine manufacturing process and demonstrate its power generating unit, followed by tours in March at the Plant and Transportation Systems Engineering & Construction Center to show its vehicle assembly plant and large flue gas desulfurization test equipment and at the Paper & Printing Machinery Division to spotlight its sheet-fed press and newspaper offset press.

Participants were amazed and offered comments such as, "I realized they are doing wonderful manufacturing here," and "I learned the company is providing the world with excellent products." We believe plant tours effectively promote understanding of MHI's products and technologies.

MHI will use questionnaires completed by participants as a reference for further improvements.



Plant tours at the Plant and Transportation Systems Engineering & Construction Center and the Paper & Printing Machinery Division

## Recent Dividend Disbursements

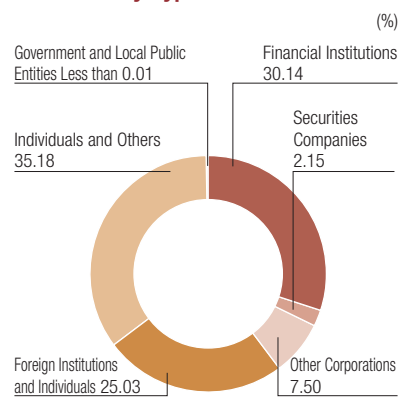
### Dividend disbursements over the past five years

Fiscal year	Dividend per share
2003	6 yen
2004	4 yen
2005	4 yen
2006	6 yen
<b>2007</b>	<b>6 yen</b>

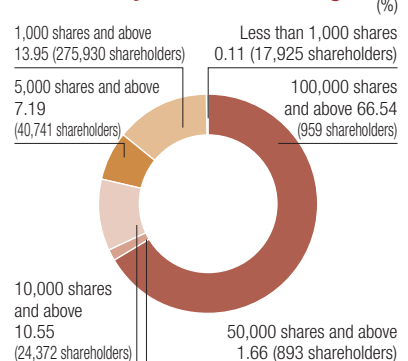
For fiscal 2007, a 3 yen per share year-end dividend was distributed.

In addition to the previously distributed interim dividend of 3 yen per share, total dividends for the year were 6 yen per share.

### Classified by Type of Shareholder (%)



### Classified by Number of Holdings (%)



# Commitment to Our Suppliers

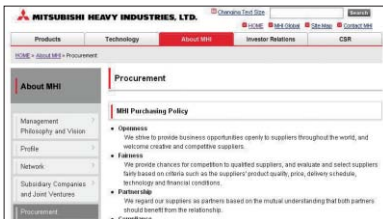
MHI views its suppliers as key partners who have the same desire for mutual prosperity. In line with this conviction, the company has been creating a structure to share value with them to strengthen CSR efforts while laying out a framework for fair dealing on an equal footing.

## Ensuring Fair Dealing

### Announcing MHI's Purchasing Policy that promises fair and equal dealing

MHI's dealings with suppliers are based on an open, fair and equitable evaluation and selection of new suppliers, trusting relationships that encourage mutual growth, and compliance with applicable rules, regulations and social norms.

The company drew up its basic procurement policy in July 2002 and posted it on the corporate website to inform everyone in and outside of the company. Application guidelines for new suppliers and contact information for material procurement are also available on the site.



**URL** MHI's procurement policy on the corporate website:  
<http://www.mhi.co.jp/en/company/procurement/index.html>

### Assuring the fair selection of suppliers based on technology, quality, price, and other factors

In principle, under company regulations, sections that place orders select their own suppliers and determine business terms and conditions. Supplier selection is based on a comprehensive assessment of each candidate's strengths in technology development, supply capability, reliable product quality, price and delivery schedule to ensure fair and equal treatment. Furthermore, the Internal Audit Department confirms whether supplier selection was conducted fairly and impartially through the annual audit.

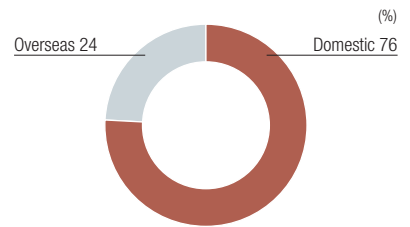
In addition, the company separates sections that will use procured items from those that place orders and others that accept delivery, with each of the three sections cross-checking the others as a means for preventing spurious orders or

### Procedures for a new transaction

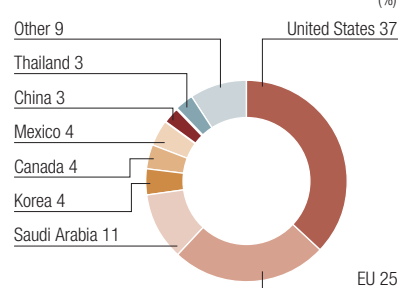


unfair transactions. Under this structure, multiple employees confirm the appropriateness of order content and the procured items at each stage of order placement and acceptance inspection. All results are recorded in its system and ledger sheets, which are checked during internal audits.

### Ratio of domestic/overseas suppliers (%)



### Breakdown of major overseas suppliers (%)



### Monitoring the Legal Compliance of Purchasing Activities through Internal Audits

In its purchasing activities, MHI prohibits any acts that violate laws, including the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade, the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors and the Construction Business Act.

The Material Department and the Internal Audit Department of the Head Office work together to regularly audit purchasing activities and strictly monitor compliance with the basic policy in individual divisions.

In fiscal 2007, the two departments visited the material departments of all headquarters, divisions and works (15 in total) from November through February and audited their procurement activities.

## MHI Purchasing Policy

### 1. Openness

We strive to openly provide business opportunities to suppliers throughout the world, and welcome creative and competitive suppliers.

### 2. Fairness

We provide competitive opportunities to qualified suppliers, and evaluate and select suppliers fairly based on criteria such as the suppliers' product quality, price, delivery schedule, technology and financial conditions.

### 3. Partnership

We regard our suppliers as partners based on the mutual understanding that both partners should benefit from the relationship.

### 4. Compliance

We comply with rules, regulations and social norms based on our compliance management policy, and all information submitted to MHI will be kept and used properly.



## Compliance training for employees engaged in procurement activities

The company holds annual training sessions on compliance issues for employees engaged in procurement activities and offers an e-learning program on the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors.

For fiscal 2007, compliance training was held at the Nagasaki Shipyard & Machinery Works in January 2008 with the participation of 37 younger employees from the procurement divisions of the entire company. This year's educational program was conducted over two days with the goal of raising compliance awareness and included sessions on the civil and commercial codes; the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors; the Construction Business Act; and the Stamp Tax Law. The level of understanding was tested at the completion of the training session. The average score for the test, which consisted of 100 questions, was 84. Review material was sent to strengthen participant understanding of items that indicated poor comprehension.

On this occasion, employees working in the Nagasaki Shipyard & Machinery Works, but not in its procurement department, were able to freely participate in any course of the training program to raise their awareness of procurement, representing a total of 291 participants for the entire program.

In an e-learning program on the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, 8,852 MHI employees and 569 employees from 60 MHI Group companies (in which MHI holds more than 50% of shares) participated from November 2005 to March 2008.

### Flow of compliance training

#### Training program implementation (two days)

The Civil Code and the Commercial Code / the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors / the Construction Business Act / the Stamp Tax Law, etc.

#### Testing the level of understanding

#### Sending review material

(\*for questions with low scores)

## Record of compliance training

	Compliance training	e-learning
FY2003	39 participants (one session)	—
FY2004	53 participants (two sessions)	—
FY2005	50 participants (two sessions)	694 participants
FY2006	34 participants (one session)	4,692 participants
<b>FY2007</b>	<b>37 participants (one session)</b>	<b>3,466 participants</b>

## Toward Implementing CSR Procurement

### Sharing value with suppliers through CSR Procurement Guidelines

Recognizing that supplier cooperation is essential for fulfilling corporate social responsibility in such areas as product safety, compliance and reduced environmental burden, companies have recently been called upon to clearly declare their CSR policy to business partners and also to seek their agreement, understanding and cooperation.

Against this backdrop, MHI plans to formulate CSR Procurement Guidelines and develop a CSR Self-Evaluation Tool for suppliers with the aim of confirming common values with supplier companies in regard to promoting CSR.

Earlier in December 2007, MHI distributed the MHI CSR Report to 716 suppliers that have had long business relationships with the company to introduce MHI's CSR policies and current efforts. In addition, we enclosed with the CSR report a questionnaire on attitudes toward CSR and obtained responses from 396 companies. We are now formulating procurement guidelines and a self-evaluation tool based on these responses.

In fiscal 2008, we plan to request a self-evaluation from about 20 suppliers who had responded that they desired to actively communicate with MHI and we will expand the self-evaluation to major domestic suppliers over three years.

For overseas suppliers, we started closer communication, including a questionnaire of 50 companies that have had long-term umbrella agreements with MHI as of July 2007. Looking ahead, we will consider introducing initiatives similar to those carried out at home.

## Suppliers and compliance

To request supplier cooperation with corporate compliance measures, MHI sends letters to domestic suppliers on such issues as discontinuing outdated formalities like summer and year-end gift-giving, promoting the use of designated invoices, and notifications of compliance contacts to raise their awareness of compliance and encourage stronger efforts.

For overseas suppliers, MHI stipulates compliance under specific contract terms, since laws and rules vary by country and region.

### Requests to suppliers (examples)

- Discontinuing outdated formalities (declining gifts and business entertainment)
- Notifications of compliance contacts
- Timely submission of written estimates (to avoid order delays)
- Use of designated invoices (to prevent delay of payment due to incomplete acceptance procedures)

### New contract provisions to block transactions with antisocial forces

Based on the policy stipulated in MHI Compliance Guidelines—"The company will respond firmly to antisocial forces"—our procurement departments also block dealings with any antisocial group.

Should any transaction be initiated with such a group, it is important to terminate the contract as soon as it is known that the other party is an antisocial group and cut off the relationship. Therefore, we decided to include in our basic business agreement a provision allowing cancellation of the contract in the event such a situation is discovered. This provision will be incorporated in the basic business agreements that will be concluded starting the second half of the fiscal 2008.

## Commitment to People and Society

# Commitment to Our Employees

Believing that human resources are the company's most important asset and that their growth leads to the development of the entire company, MHI is actively working to utilize and cultivate diverse human resources and build a better working environment.

### Utilizing and Cultivating Diverse Human Resources

#### Active recruitment and utilization of mid-career, overseas and female workers

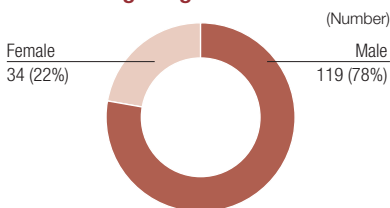
In the course of excelling at manufacturing large-scale system products that involve lengthy timeframes, including power generation plants, aerospace equipment and marine vessels, MHI's basic policy for recruiting and developing human resources had been to hire new graduates and provide ample in-house training.

Recently, however, survival in an increasingly competitive, globalized market has required the ability to utilize diverse human resources. Therefore, in fiscal 2008, MHI plans to hire around 800 mid-career workers—an approximately 30% increase over the previous year—in addition to about 1,600 new graduates, roughly 7% more than the previous year. The company treats new graduates and mid-career workers equally. Mid-career workers play an active role in their respective fields as members of the company, making full use of the skills they have cultivated.

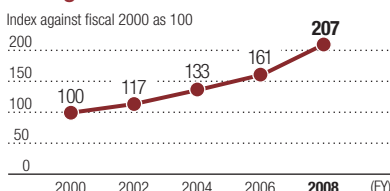
MHI is also actively working to hire personnel to deploy overseas for the global development of its business. The company will hire overseas students and foreign students through aggressive recruitment activities.

In addition, MHI is actively hiring female workers with high expectations for their performance. The numbers of new

#### Number of new white-collar recruits with a college degree



#### Change in the number of female managers



female workers and managers have been increasing each year. Recently, approximately one-quarter of new white-collar recruits with a BA have been women.

#### Promotion of rehiring seniors across the Group

In 2006, the company established a rehiring system, not only within the company but throughout the entire Group to, in principle, embrace all employees who wish to take advantage of the opportunity for reemployment. In December 2007, the company also raised base salaries to encourage outstanding performance by the reemployed.

Forms of reemployment include both full-time and part-time positions. The employment period is one year, renewable up to age 65. In fiscal 2007, 879 out of 1,462 employees who had retired signed reemployment contracts under this system.

#### Change in the number of rehired employees (excluding those from Group companies)

(Number)			
2006/10	2007/4	2007/10	2008/4
299	461	685	936

#### Expanded job opportunities for the handicapped

Since 1992, MHI has been pursuing efforts to expand job opportunities for handicapped individuals and create a suitable working environment for all workers by establishing a Committee for Promotion of Employment of the Handicapped (see p. 30). In fiscal 2007, the company further intensified its efforts to expand employment of the handicapped by revising its website for recruiting handicapped individuals and partnering with local job-placement offices. As a result, the rate of employment of the handicapped as of April 1, 2008 was 1.94%, exceeding the statutory employment rate of 1.80%. We intend to continue actively recruiting to maintain employment above the statutory rate.

#### Skills upgrading and self-fulfillment through training

MHI has established an array of training programs, starting from practical human resource development based on on-the-

job training (OJT) for new employees to programs for current employees, depending on their level or function to enhance the knowledge and abilities required for their respective jobs. Furthermore, to cultivate truly internationally minded human resources capable of supporting the company's global businesses, MHI operates various systems such as training for overseas business assignments, and offers opportunities to study abroad. In addition, MHI introduced an e-learning system for the entire company and its Group companies in fiscal 2007 to accelerate human resource development.

#### Initiatives for skills transfer

The company has been deploying hands-on training programs to transfer the skills and expertise of highly skilled technicians to junior and mid-career employees in each works with practical, systematic training over a prescribed period of time.



Hands-on training

#### For capacity building and realizing the potential of women

MHI implements ongoing efforts to create an environment supporting female employees in making full use of their abilities and thereby revitalizing the workplace. As part of this effort, the company conducts career improvement seminars specifically for female employees every year.



Career improvement seminar

#### Mutual understanding and motivation through dialogues

Through regular dialogues between employees and their supervisors, MHI ensures the effective sharing of business targets and a common awareness of is-

sues, communicates the roles and tasks individual employees are expected to fulfill, and listens to requests and business improvement suggestions from employees. As a result, an interactive communication environment has been established that contributes to the creation of a workplace in which employees can work vigorously, free from anxiety and with a sense of mutual trust and pride, thereby enhancing employee motivation and promoting the enhancement of an individual's capabilities.

For those working in white collar positions, MHI adopts an MBO (Management by Objectives) system in which performance targets are set and progress evaluated twice a year. Blue-collar employees and their respective supervisors hold discussions once a year to maintain common understandings on operational issues.

### 360° research: A program for middle managers

This program, which targets managers (general managers, deputy general managers, managers, assistant managers), involves supervisors, colleagues and subordinates in assessing the manager's performance. Results are relayed back to the managers by their supervisors. By communicating feedback and evaluations of daily behavior from others, MHI assists middle managers in developing their strengths while at the same time identifying areas for improvement, thereby encouraging further growth and self-development.

### Building a Better Working Environment

### Supporting a proper balance between work and family life

To create an environment that helps employees effectively balance their work and family life, MHI has been improving systems to support raising children while working. In addition to the existing child-care leave and family-care leave, the company established new systems in November 2007, including a career return plan and special grants to support a proper balance between work and child care.

The career return plan offers opportunities for employees who have left after marriage or childbirth to rejoin the company and continue their previous career. The special grants to support a proper balance between work and child care, on the other hand, are intended to boost the motivation of working employees who place their child in daycare until the end of the year in which the child reaches three years of age.

In May 2007, the company obtained

the Kurumin Mark (see the back cover) certification based on the Next Generation Nurturing Support Measures Promotion Law. Going forward, we will continue to actively support caring for the next generation.

### Number of employees who took child-care leave (Number)

FY	2003	2004	2005	2006	2007
Male	1	1	1	3	6
Female	108	100	88	99	106

### Efforts for raising awareness of human rights in individual workplaces

MHI set up the Committee for Raising Awareness of Human Rights (see p. 30) in 1992 to promote education and training on human rights issues. From April through June of fiscal 2007, the committee conducted a training program on human rights for about 1,400 newly appointed managers and supervisors.

In terms of preventing sexual harassment, a consultation and complaint contact point was set up in each works and booklets distributed companywide.

### Creating safe and healthy workplaces centered on a basic policy for employee safety and health

MHI embraces a basic policy for employee safety and health founded on the following three commitments: (1) Always hold fast to the conviction that life is precious, and carry out safety-first measures appropriate to each position and location; (2) Devote every effort to safety in creating outstanding products that contribute to the development of society; (3) Maintain awareness that sound health is the basis upon which all else depends, and ensure that all employees have a comfortable work environment enabling them to be sound in body. In line with these principles, the company is implementing an occupational health and safety management system throughout the organization to promote the creation of safe and healthy workplaces.

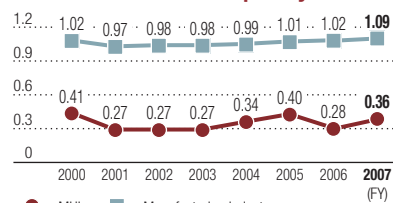
### Measures to prevent work-related accidents and injuries

Based on the occupational health and safety management system, each works carries out risk assessment and implements measures based on the results. Efforts are made to prevent accidents and injuries by encouraging all employees to carry out proper assessment and countermeasures in their respective positions as a way of eliminating factors that can

cause accidents.

On another level, MHI is also working to create a safe workplace by actively refurbishing or replacing superannuated facilities.

### Industrial accident frequency rate

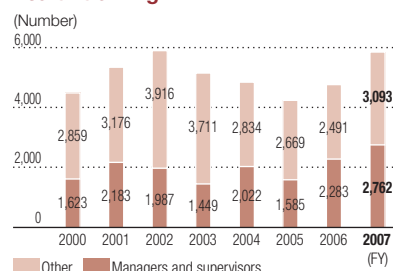


\* Industrial accident frequency rate: number of deaths or injuries sustained through industrial mishaps per million hours on the job. It is calculated as follows: number of deaths or injuries sustained on the job that require one or more days of leave ÷ aggregate number of hours worked × 1,000,000

### Maintaining and improving physical and mental health

MHI proactively supports employees in maintaining their physical and mental well-being. Health management departments have been established at each works to provide health checkups and diagnostic screenings, and guidance is provided based on the results of testing to enable employees to maintain their top physical and mental condition. The company also sponsors various events and provides training to promote sound health and to prevent illness.

### Number of participants in mental health training



### Communication between management and labor

MHI believes that communication between management and employees is crucial for carrying out the company's business activities. In line with this thinking, the company's intranet, corporate newsletter and other resources are fully utilized to disseminate management information and messages from top management to all employees as quickly as possible.

In addition, various labor-management consultations provide a forum for management to both convey management policies and strategies and to hear the views of the union for integration into management practices.



# Commitment to People and Society

## Contributions to Society

MHI undertakes many socially beneficial activities focused on local communities and the development of future generations. As a company whose business operations encircle the globe, MHI is committed to pursuing diverse social contribution activities in the future.

### Fulfilling our Policy on Socially Beneficial Activities

#### Formulating a policy to practice social contribution suitable for MHI

MHI used the opportunity of publishing the *Social and Environmental Report* in

2004 to formulate its approach to social contribution.

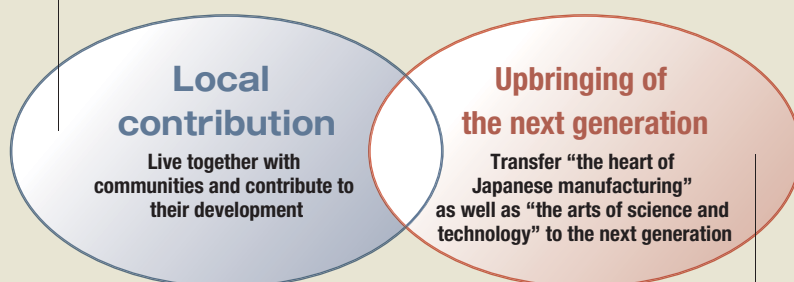
Subsequently, in 2007, the company reviewed external feedback and formulated its social contribution policy focusing on the type of activities society expected from the company. This policy was announced both internally and externally in May 2007.

### Expenditures on Socially Beneficial Activities

MHI endorses the goals of the "One Percent Club," a program initiated by Nippon Keidanren (Japan Business Federation) in which participating members pledge to use at least 1% of their ordinary profits or disposable incomes to fund activities for the public benefit. MHI has been a member since the Club's founding in 1990, and reports its expenditures for such purposes every year.

#### MHI policy for social contribution

Our basic policy is to live together with local communities of branch offices, overseas offices, and Group companies in foreign countries, building strong relationships based on mutual trust. With this in mind, we undertake various activities suitable for local cultures and contribute to the local development and activation both in Japan and overseas.



MHI has developed and produced more than 700 kinds of products in its long history, cultivating "the heart of Japanese manufacturing" and "the arts of science and technology." To pass its knowledge and skills onto succeeding generations, MHI has a tradition of organizing educational activities such as science classes with experiments for children.

#### Change in expenditures on socially beneficial activities

(Unit: million yen)

	FY2004	FY2005	FY2006
Academic research	276	148	223
Education	468	682	630
Community activities	72	97	126
Sports	51	106	121
Other	320	241	771
<b>Total</b>	<b>1,187</b>	<b>1,274</b>	<b>1,870</b>
Percentage of ordinary profit	—	3.93%	3.25%

#### Notes:

- \* Figures include cash donations, payments in kind, activities by employees, free use of company facilities, etc., converted into monetary equivalents; activities privately performed by employees are not included.
- \* No percentage is provided for 2004 since ordinary profit was recorded as a loss.
- \* Figures for 2007 are now being prepared.

### Recovery Assistance to Areas Hit by Natural Disasters

MHI has long embraced a humanitarian perspective and offered assistance and support across the world in the aftermath of large-scale natural disasters.

We recently donated relief funds to help people who suffered as a result of the heavy snow disaster that occurred in southern China in January 2008, the cyclone that hit Southern Burma and the China Sichuan Earthquake in May of the same year.

#### Major support activities in the past five years

Year	Disaster	Scale of support (Unit: million yen)	Type of support
2008	China Sichuan Earthquake	210	Cash donation
	Cyclone in Southern Burma	3	Cash donation
	Extraordinarily heavy snow in Southern China	1.5	Cash donation
2007	Niigata Chuetsu-oki Earthquake	10	Cash donation
	Noto Hanto Earthquake	1	Cash donation
2006	Northern Pakistan Earthquake	10	Donations of gasoline generators and cash
	Northern Pakistan Earthquake	5	Cash donation
2005	Hurricane in the southern U.S.	30	Donations of light towers and cash
	Typhoon in China's Liaoning Province	0.44	Cash donation
	Sumatra earthquake and tsunami	27.78	Cash donation
2004	Niigata Chuetsu Earthquake	10	Cash donation
	Torrential rains in Niigata Prefecture	1	Cash donation
	Torrential rains in Fukui Prefecture	1	Cash donation
	Southeastern Iran Earthquake	8	Donations of gasoline generators and cash

## Contribution to Communities

### Voluntary Participation in Area Cleanup Projects

Employees at works nation-wide take part in local neighborhood clean-up projects to preserve surrounding environments as responsible members of the community. In fiscal 2007, 9,306 employees participated in these projects.



### Health Support Consultation

The Kobe Shipyard & Machinery Works holds health consultation meetings in which doctors and nurses from Mitsubishi Kobe Hospital provide guidance on health issues to local residents.



### Softball Competition

The Nagasaki Shipyard & Machinery Works holds softball competitions inviting elementary school students from the prefecture. The first competition was held in October 2007 with the participation of about 850 children.



### Regular Concert by Wind Orchestra

At the Nagasaki Shipyard & Machinery Works, MHI's Wind Orchestra Club holds regular concerts, inviting a large number of people from the local community, to contribute to the local culture through music.



### Material Room Open to the Public

The Nagoya Aerospace Systems Works set up a material room in 1990 to pass down the evolution of aircraft technology and the history of aircraft to posterity. The admission-free material room has been open to the public since 1991.



### Matching Gift Program

Money collected by employees was matched by the company and donated to charitable causes. In 2007, eating utensils manufactured with MHI's technology for use by those who require special care were donated to 95 welfare facilities.



## TOPICS

### Launching ceremonies and tours at the Shimonoseki Shipyard & Machinery Works

The Shimonoseki Shipyard & Machinery Works opens its vessel launching ceremonies to the public to help children who will forge the future see the beauty of manufacturing and to enable community residents deepen their understanding of shipbuilding.

Those attending the events for the first time often gaze up at the ship, visibly surprised by its sheer enormity. And when the ship starts to slowly glide down the slip and is launched into a new life under a blizzard of confetti and multi-colored balloons, the crowd responds with loud cheers and applause. The event is popular among spectators who say it is the most impressive thing they have ever seen.

Launching ceremony tours are recommended by Shimonoseki City as a part of the tourism industry and are held several times a year. The tours attract visitors from other prefectures and play a part promoting tourism in general.

MHI also sponsors launching ceremonies and conducts plant tours at other shipyards and machinery works. The company will continue contributing to the development and revitalization of local communities.



Launching ceremony at the Shimonoseki Shipyard & Machinery Works

# Commitment to People and Society

### Development of Future Generations

#### Supporting Internships

MHI's works across the nation support internships to increase a sense of vocation and encourage proactive career choice and professional development. In fiscal 2007, the company accepted a total of 167 students.



#### Mitsubishi Shinsen Summer School

Kobe Shipyard & Machinery Works provides factory tours and a class for learning about electric energy that involves scientific experiments, inviting 100 elementary school students and their parents during the children's summer holidays.



#### Social Studies Program

Takasago Machinery Works and Takasago Research & Development Center provides social studies programs for all fifth graders of elementary schools in the city. In 2007, 955 students participated.



#### Donation of Killifish

A large number of killifish, which have become rare in recent years, live in the drainage ditches of the Hiroshima Machinery Works. Every year the works donates them to elementary and junior high schools in the prefecture for educational purposes.



#### Accepting Interns from China

Takasago Research & Development Center accepts interns from Tsinghua University and the Chinese Society of Engineering Thermophysics. Direct involvement in gas turbines and their development increases the interns' interest in conducting research.



#### Endowment of Chair at a University in Vietnam

MHI has endowed a chair on power-generating plants, environmental conservation equipment engineering and control engineering at Hanoi University of Technology in Vietnam to contribute to the country's enhanced technology capabilities and economic development.



## TOPICS

### Environment/Energy Zone and Daily Life Discovery Zone opened in the Mitsubishi Minatomirai Industrial Museum

MHI founded the Mitsubishi Minatomirai Industrial Museum in June 1994 hoping it would become a place where young people, who will be responsible for the future, might aspire to great dreams through first-hand contact with science and technology. The museum includes display zones dedicated to different fields, including space, ocean and transportation to introduce related cutting-edge technologies. In addition, hands-on corners include a helicopter simulator and a 3D theater.

In February 2008, two new zones were opened in the museum. One, the Environment/Energy Zone is a display zone that introduces a card system. Visitors walk around the zone with a card in their hand and learn about the global environment and energy while enjoying an electric car driving game and a virtual tour of nuclear or thermal power stations. The second new zone, Daily Life Discovery Zone represents a town full of devices for discovering secrets hidden in things near at hand, including mobile phones and PET bottles. Visitors can enjoy exploring diverse technologies in a space that simulates a home or a shop.



Daily Life Discovery Zone



Environment/Energy Zone



"Earth Rescue" is a popular role playing game for children. Players create characters who work as their alter egos to improve the environment of a virtual earth.

 Mitsubishi Minatomirai Industrial Museum  
[http://www.mhi.co.jp/e\\_museum/](http://www.mhi.co.jp/e_museum/)



## Socially Beneficial Activities by Group Companies

### Mitsubishi Heavy Industries Bridge & Steel Structures Engineering Co., Ltd. Emergency bridge diagnosis following an earthquake

Recognizing the importance of bridge safety after a seismic disaster, Mitsubishi Heavy Industries Bridge & Steel Structures Engineering carries out bridge diagnosis free of charge in regions hit by earthquakes.

When the Chuetsu-oki Earthquake occurred on July 16, 2007, a nine-member inspection team was dispatched the very same day. The team conducted a field investigation giving priority to bridges that were heavily damaged. For the prompt response, and recognizing that the investigation aided in the early detection of serious damage, the Nagaoka Highway Office, Hokuriku Region Development Division of the Ministry of Land, Infrastructure and Transport presented the company with a letter of appreciation.



Investigation with priority given to bridges that were heavily damaged

### Hiroji Center Co., Ltd.

#### Traffic safety class for new elementary school students

Hiroji Center, which operates driving schools in the community, opens a driving school course one day in May each year to conduct a traffic safety class for first-graders from local elementary schools. The company's employees, who are professional traffic instructors, teach how to safely proceed across crosswalks and railroad crossings and demonstrate how dangerous cars can be in an easy-to-understand manner, which is popular with students.



Traffic safety class using a driving school course

### Ryonichi Engineering Co., Ltd.

#### Holding a special university course on state-of-the-art energy/environmental technologies

In order to transfer the world's most advanced energy/environmental technologies to young people, as the leaders of tomorrow, and to increase interest in manufacturing and environmental preservation, Ryonichi Engineering has been assigning employees as part-time lecturers to conduct special courses at universities since 1998.

Specialists in power systems and environmental equipment serve as course lecturers and introduce technologies that contribute to improving the environment. Since 2007 plant tours were incorporated in the course to allow students to see actual products.



Tour at Yokohama Dockyard & Machinery Works organized as a part of the course

### Choryo Inspection Co., Ltd. / Kensa Kenkyusho Inspection Co., Ltd.

#### Helping train examiners in non-destructive testing to support the local economy

As more companies acquire ISO 9001 certification each year, training qualified examiners presents a major challenge for smaller local companies who wish to bid on public works or major projects. To



Non-destructive test training program

contribute to the development of manufacturing companies in Nagasaki Prefecture, Choryo Inspection conducts a free technical course on non-destructive testing and a free technical training program for non-destructive inspector qualification (NDI) for smaller companies in the prefecture.

In fiscal 2007, a total of 294 people participated in the course and training program, with more than half qualifying as

official non-destructive inspectors.

Kensa Kenkyusho Inspection also contributes to raising the number of inspectors by sending lectures to workshops hosted by the Japanese Association for Non-destructive Testing Industry.



Employee serving as a lecturer in a non-destructive test training program

### Mitsubishi Caterpillar Forklift America Inc.

#### Support for the Houston Rodeo, a traditional community event

Since 2005, MCFA has donated forklift trucks to the Houston Rodeo, an annual event in Houston, Texas where the company is headquartered. Run mainly by a large volunteer organization, the Houston Rodeo is a traditional event that attracts more than two million spectators every year and makes a strong impact on various educational programs as well as the local economy. During the three week event, the forklift trucks are used to move various materials such as entertainment and agriculture equipment.



Forklift trucks in action at the Houston Rodeo

### VienTek, LLC

#### Donating US\$20,000 to construct a classroom for handicapped children in a neighborhood elementary school

Since March 2002, when VienTek, LLC constructed a large windmill blade plant in Ciudad Juarez, Mexico, the company has been involved in various community activities, such as sporting events.

On the anniversary of its foundation in March 2007, the company donated US\$20,000 to help construct a classroom for handicapped children in a neighborhood elementary school.

# Progress Toward a Sustainable Society

MHI's Activities ( ● Society/ ■ Environment)	Year	Major Events in Japan and Abroad ( ● Society/ ■ Environment)	
		Japan	World
		1967 ■ Institution of Basic Law for Environmental Pollution Control.	1948 ● Universal Declaration of Human Rights.
1970 ■ Completion of Japan's first PWR power plant.	1970	1971 ■ Establishment of Environment Agency.	1972 ■ United Nations Conference on the Human Environment convenes in Stockholm. ■ Adoption of Statement for Human Environmental Quality. ■ Establishment of United Nations Environment Programme (UNEP).
1973 ■ Inauguration of Environment Management Department.			1976 ● OECD Guidelines for Multinational Enterprises issued.
1977 ● Development of "Basic Guidelines for Safety & Health Management."	1980	1985 ● Enactment of Equal Employment Opportunity Law.	1981 ● Convention on the Elimination of All Forms of Discrimination against Women went into effect. ● International Year of Disabled Persons.
1978 ■ Creation of Environmental Manager Conferences.			1987 ■ Adoption of Montreal Protocol on Substances that Deplete the Ozone Layer.
1980 ● Establishment of Committee on Promotion of Training in the Dowo Issue.	1990	1988 ■ Enactment of Ozone Layer Protection Law.	1990 ● Institution of Americans with Disabilities Act.
1987 ● Establishment of Export-related Regulations Monitoring Committee.			1992 ■ United Nations Conference on Environment and Development (Earth Summit) convenes in Rio de Janeiro; adoption of Rio Declaration on Environment and Development and Agenda 21.
1989 ■ Launch of In-house Conference on CO <sub>2</sub> Measures and In-house Conference on CFC Measures.	1990	1991 ■ Establishment of Keidanren Global Environmental Charter. ● Establishment of Keidanren Charter of Corporate Behavior. ● Enactment of Child Care Leave Law.	1994 ● Caux Round Table draws up Principles for Business.
			1995 ■ 1st Conference of the Parties to the United Nations Convention on Climate Change (COP1) convened in Berlin.
1992 ● Committee on Promotion of Training in the Dowo Issue renamed Committee for Raising Awareness of Human Rights. ● Establishment of Committee for the Promotion of Employment of the Handicapped.	1990	1992 ■ Ministry of International Trade and Industry requests Voluntary Plan on the Environment.	1996 ● ISO 14001 is instituted. ■ 2nd Conference of the Parties to the United Nations Framework Convention on Climate Change (COP2) convened in Geneva.
1993 ■ Formulation of voluntary plan entitled, "Our Approach to Environmental Problems."			1997 ■ 3rd Conference of the Parties to the United Nations Framework Convention on Climate Change (COP3) convened in Kyoto.
1996 ■ Formulation of Environmental Policies and establishment of Environment Committee.	2000	1993 ■ Enactment of Basic Environmental Law.	1998 ■ 4th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP4) convened in Buenos Aires.
			1995 ● Child Care Leave Law revamped into Child Care and Family Care Leave Law.
1997 ■ Acquisition of ISO 14001 certification by Yokohama Dockyard & Machinery Works, a first for Japan's heavy industry manufacturers. ■ Launch of R410A-compatible air-conditioners. (R410A: new type of environment-friendly refrigerant)	2000	1996 ● Revision of Keidanren Charter of Corporate Behavior.	1999 ■ 5th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP5) convened in Bonn.
1998 ■ Development of system that thermally decomposes PCBs contained in industrial effluents.			2000 ■ 6th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP6) convened in The Hague. ● United Nations Global Compact is instituted. ● Issuance of GRI Sustainability Reporting Guidelines Version 1.
1999 ■ Delivery of combined-cycle power plant incorporating the M701G gas turbine, featuring the world's highest efficiency rating.	2000	1997 ■ Formulation of Keidanren Voluntary Action Plan on the Environment.	2001 ■ 7th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP7) convened in Marrakech. ● ISO Council launches feasibility study on establishing international CSR standards.
2000 ■ ISO 14001 certification acquired by all production bases (13 works).			1998 ■ Enactment of Law Concerning the Promotion of Measures to Cope with Global Warming. ● Enactment of Law to Promote Specified Nonprofit Activities.
2001 ■ Acquisition of ISO 14001 certification by Engineering Department. ● Establishment of Compliance Committee.	2001	1999 ■ Enactment of Pollutant Release and Transfer Register (PRTR) Law.	2002 ■ World Summit for Sustainable Development convened in Johannesburg. ■ 8th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP8) convened in New Delhi. ● GRI Sustainability Reporting Guidelines Version 2 released.
			2000 ■ Enactment of The Basic Law for Establishing a Recycling-based Society. ■ Revision of Law for the Promotion of Recycled Resources Utilization. ■ Enactment of Construction Material Recycling Law, Food Recycling Law and Law on Promoting Green Purchasing.
2002 ■ Establishment of medium- to long-term environmental activity goals.	2001	2001 ■ Establishment of Ministry of the Environment. ■ Enactment of Law Concerning Special Measures against PCB Waste. ■ Enactment of Fluorocarbons Recovery and Destruction Law.	2003 ■ First study meeting held to discuss treaty on safety of radioactive waste management. ■ 9th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP9) convened in Milan.
			2002 ■ Ratification of Kyoto Protocol. ■ Enactment of Soil Contamination Countermeasures Law. ■ Revision of Act Concerning the Rational Use of Energy. ● Nippon Keidanren revamps Keidanren Charter of Corporate Behavior into Corporate Behavior Charter. ● First meeting of CSR Standardization Committee held by Ministry of Economy, Trade and Industry.
2003 ● Establishment of Construction Business Act Compliance Committee.	2003	2003 ■ Trial project for trading of greenhouse gas emissions implemented by Ministry of the Environment. ■ Emissions standards for diesel vehicles tightened. ■ Revision of Waste Management and Public Cleansing Law. ● Japan Committee for Economic Development releases 15th Corporate White Paper, entitled, "Evolution of Market and Social Responsibility-Minded Business Management."	2004 ● Tenth item (on corruption prevention) added to United Nations Global Compact. ■ 10th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP10) convened in Buenos Aires.
2004 ● Joined United Nations Global Compact initiative. ● Establishment of Managing Board for Innovation in Nuclear Business.			2005 ● Enactment of Act on the Protection of Personal Information.
2005 ● Introduction of Executive Officer system. ● Establishment of Internal Audit Department. ● Establishment of CSR Center. ● Establishment of Order Compliance Committee.	2005	2006 ● Enactment of New Company Law. ● New National Energy Strategy formulated.	2005 ■ Kyoto Protocol goes into force. ■ 11th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP11) and the 1st Meeting of the Parties to the Kyoto Protocol (COP/MOP1) convened in Montreal.
2006 ■ Acquisition of ISO 14001 certification by Head Office (including branch offices). ● Establishment of CSR Committee. ● Establishment of CSR Department.			2006 ● GRI Sustainability Reporting Guidelines Version 3 released. ■ 12th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP12) convened in Nairobi. ■ EU announced target of reducing CO <sub>2</sub> emissions by 20% compared to 1990 levels by 2020.
2007 ● Establishment of CSR Action Guidelines.	2007	2007 ■ 21st Century Environmental Nation Strategy formulated. ● Enactment of the revised Consumer Products Safety Law.	2007 ■ Fourth Assessment Report released by the United Nations Intergovernmental Panel on Climate Change (IPCC).
2008 ● Development of CSR Action Plan.			2008 ● Application of internal control report system based on the Financial Instruments and Exchange Act (J-SOX) started.

### Takamitsu Sawa

Professor, Graduate School of Policy Science, Ritsumeikan University  
Project Professor, Institute of Economic Research, Kyoto University



In a speech entitled, "Invitation to Cool Earth 50," delivered in May last year, then-Prime Minister Abe called for reducing greenhouse gas emissions including carbon dioxide (CO<sub>2</sub>) to half of current levels by 2050. He emphasized that meeting this goal would require efforts to achieve a low carbon society by developing innovative technologies and establishing a funding mechanism to help introduce these technologies into developing countries. Inheriting the Abe Initiative, current Prime Minister Fukuda also pledged to the international community that Japan would significantly reduce its greenhouse gas emissions. Creating a low-carbon society on a global scale is the greatest and most urgent challenge facing the human race in the first half of the 21st century.

From another perspective, the reserve/production ratio (that is, confirmed exploitable reserves over annual mining volume) of petroleum, a non-renewable resource, is just 40 years. And in July of this year, the price of oil exceeded 140 dollars per barrel (approx. 159 liters) largely due to greater motorization in nations such as China. High oil prices push up the cost of petroleum products: particularly gasoline and diesel. This could lead to automobiles that run on gasoline or diesel becoming luxury items in the not-so-distant future and being replaced by electric cars. As a result, demand for electricity will rise rapidly despite progress in energy conservation in consumer appliances. Consequently, the development of a CO<sub>2</sub>-free power source is the key for creating a low-carbon society.

MHI is a leader in the development of CO<sub>2</sub>-free renewable power sources, including wind, photovoltaic, geothermal and biomass power generators as well as nuclear power plants. In addition, the company possesses a wealth of experience in delivering combined power generation plants that exponentially improve the efficiency of coal-fired thermal power. In my opinion, power sources in the next 10 to 20 years will come from the optimal combination of coal-fired thermal power plants, equipped with devices to capture CO<sub>2</sub> from smoke and store it underground, with nuclear power and renewable energy. MHI has an extremely important role to play in maintaining the current level of electric power for this mix of power sources. Helping to realize a low-carbon society is one of the most essential corporate social responsibilities that contribute to protecting the earth.

### Mariko Kawaguchi

Senior Analyst, Management Strategy Research Department,  
Daiwa Institute of Research Ltd.



My first impression on reading this report is that it represents a down-to-earth summary of technology. Particularly in the section dealing with the issue of global warming, we can give high marks for MHI's commitment to identify the resolution of this issue as part of its mission, driven by the pride of a company that represents corporate Japan's advanced level of technology and commands a wealth of possible solutions. The specific content, however, seems to be based on a short-term approach, focused on providing existing technologies or those that will become available in the near future as a part of doing business. Today, extremely long-term plans up to 2020 or 2050 are under discussion at the international level in the context of a post-Kyoto framework. MHI is one of the few companies that command such a large reservoir of technologies and products that are key to solving this issue. I would expect a more proactive approach from such a company and that it would seize the initiative in developing and demonstrating to the world an ultralong-term vision for an energy mix with less damage to the global environment. I also hope the company will set a long-term target for its own CO<sub>2</sub> reduction in line with this vision, leading the industrial world of Japan.

MHI also provides infrastructures closely related to economic and social life, with an enormous impact on global society as well as on the environment. With the development of its action guidelines in July 2007, the company's CSR activities, which previously placed a rather disproportionate emphasis on the environment, are expected to advance in a more comprehensive manner to incorporate more social aspects. This report introduces the example of a desalination plant. The project is certainly of a great social significance. Nationwide science class programs are also important in current Japanese society. From a global point of view, however, other issues have even higher priority today, including human rights issues.

In this context, the treatment of an enormous and diverse population that works in huge plants or infrastructures, such as the desalination plant mentioned in the report, as well as harmonious coexistence with local communities, are now becoming key social issues. I hope that MHI will proactively work on these challenges as well.

Finally, I am concerned that the report includes little information on defense-related businesses. Although this is a sensitive area, I expect to see information in the next report on MHI's stance toward it, as a representative Japanese company.

## Acting on Valuable Opinions



### Katsuhiko Yasuda

Director, Executive Vice President in charge of CSR

This year, Professor Sawa set expectations for the company's energy and environmental businesses. If we were to sincerely accept his message, that contributing to the creation of a low-carbon society is a key corporate social responsibility, we would provide "eco-energy" products—products developed for ecological, economic and/or energy benefits that could resolve sustainable energy issues and fulfill the company's unique responsibility to society.

Ms. Kawaguchi recommended that we develop an ultralong-term energy vision and implement social activities from a global perspective. We recognize that these issues must be carefully addressed, the former through the Sus-

tainability Energy & Environment Strategic Planning Department set up in April and the latter through CSR promotion activities that are gradually expanding in scope to include consolidated companies as well as overseas operations. In terms of our defense-related business, we intend to disclose information to the fullest extent possible.

In response to the suggestion made in this section of the report issued two years ago for setting social contribution targets, we included an action plan (see p. 23) in this report. We will conduct PDCA cycles based on this plan to ensure the ongoing enhancement of CSR activities, and we will report the status of individual items starting next year.





Address all inquiries about this report to:

**Mitsubishi Heavy Industries, Ltd.**  
**Corporate Social Responsibility Department**

16-5, Konan 2-chome, Minato-ku, Tokyo, Japan  
Postal Code: 108-8215  
Phone: 81-3-6716-3884 Fax: 81-3-6716-5815  
URL: <http://www.mhi.co.jp/>

## Locations

### Head Office

16-5, Konan 2-chome, Minato-ku, Tokyo  
Postal Code: 108-8215  
Phone: 81-3-6716-3111 (main number)  
Fax: 81-3-6716-5800

### Headquarters and Divisions

#### General Machinery & Special Vehicle Headquarters

3000, Tana, Sagami-hara, Kanagawa  
Postal Code: 229-1193  
Phone: 81-42-761-1101 (General Affairs Dept.)  
Fax: 81-42-763-0800

#### Air-Conditioning & Refrigeration Systems Headquarters

3-1, Asahi, Nishi-biwajima-cho, Kiyosu, Aichi  
Postal Code: 452-8561  
Phone: 81-52-503-9200 (General Affairs Dept.)  
Fax: 81-52-503-3533

#### Paper & Printing Machinery Division

1-1-1, Itozaki-Minami, Mihara, Hiroshima  
Postal Code: 729-0393  
Phone: 81-848-67-2054 (General Affairs & Labor Section)  
Fax: 81-848-63-4463

#### Machine Tool Division

130, Roku-jizo, Ritto, Shiga  
Postal Code: 520-3080  
Phone: 81-77-553-3300 (General Affairs Dept.)  
Fax: 81-77-552-3745

## Works

#### Nagasaki Shipyard & Machinery Works

1-1, Akunoura-machi, Nagasaki  
Postal Code: 850-8610  
Phone: 81-95-828-4121 (General Affairs Dept.)  
Fax: 81-95-828-4034

#### Kobe Shipyard & Machinery Works

1-1-1, Wadasaki-cho, Hyogo-ku, Kobe  
Postal Code: 652-8585  
Phone: 81-78-672-2220 (General Affairs Dept.)  
Fax: 81-78-672-2245

#### Shimonoseki Shipyard & Machinery Works

6-16-1, Hikoshima Enoura-cho, Shimonoseki  
Postal Code: 750-8505  
Phone: 81-832-66-5978 (General Affairs & Labor Section)  
Fax: 81-832-66-8274

#### Yokohama Dockyard & Machinery Works

1-8-1, Sachiura, Kanazawa-ku, Yokohama  
Postal Code: 236-8515  
Phone: 81-45-775-1201 (General Affairs Dept.)  
Fax: 81-45-775-1208

#### Hiroshima Machinery Works

4-6-22, Kan-on-shin-machi, Nishi-ku, Hiroshima  
Postal Code: 733-8553  
Phone: 81-82-291-2112 (General Affairs Dept.)  
Fax: 81-82-294-0260

#### Takasago Machinery Works

2-1-1, Arai-cho Shinhama, Takasago  
Postal Code: 676-8686  
Phone: 81-79-445-6125 (General Affairs Dept.)  
Fax: 81-79-445-6900

#### Nagoya Aerospace Systems Works

10, Oye-cho, Minato-ku, Nagoya  
Postal Code: 455-8515  
Phone: 81-52-611-2121 (General Affairs Dept.)  
Fax: 81-52-611-9360

#### Nagoya Guidance & Propulsion Systems Works

1200, O-aza Higashi-tanaka, Komaki  
Postal Code: 485-8561  
Phone: 81-568-79-2113 (General Affairs Dept.)  
Fax: 81-568-78-2552

#### Plant and Transportation Systems Engineering & Construction Center

##### Mihara

1-1-1, Itozaki-Minami, Mihara, Hiroshima  
Postal Code: 729-0393  
Phone: 81-848-67-2072 (General Affairs & Labor Section)  
Fax: 81-848-67-2816

##### Yokohama

Mitsubishi Juko Yokohama Bldg., 3-3-1, Minatomirai, Nishi-ku, Yokohama  
Postal Code: 220-8401  
Phone: 81-45-224-9288 (General Affairs & Labor Section)  
Fax: 81-45-224-9932

#### Mitsubishi Minatomirai Industrial Museum

Mitsubishi Juko Yokohama Bldg., 3-3-1, Minatomirai, Nishi-ku, Yokohama  
Postal Code: 220-8401  
Phone: 81-45-224-9031  
Fax: 81-45-224-9902  
URL <http://www.mhi.co.jp/museum/>



To protect the environment, this report is printed on FSC-certified paper with non-VOC inks (containing no volatile organic compounds), using a waterless printing method that generates no harmful wastewater.