

MOL Group  
**Environmental and Social Report 2009**

The 10th edition  
April 2008–March 2009



**Bluer Oceans & Cleaner Environment**

# Environmental and Social Report 2009

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## Editorial Policy

■ The MOL Group has reported on its Group-wide environmental protection activities every year since October 2000, when we published the first Environmental Report. In 2003, we renamed the publication the Environmental and Social Report to encompass the Group's overall social contributions as well as environmental protection.

■ The goal of this report is to convey how the MOL Group thinks of and approaches corporate social responsibility (CSR), including safe operation and environmental protection, which are the foundation of our business activities, to all concerned people and parties.

■ For further reference:

Environmental Report Guidelines 2007 and Environmental Accounting Guidelines 2005 issued by the Japanese Ministry of Environment  
Sustainability Reporting Guidelines 2006 issued by Global Reporting Initiative (GRI)

Please visit our website to view comparison charts with the GRI Guidelines and U.N. Global Compact

<http://www.mol.co.jp/csr-j/index.shtml>

■ Previous issue: August 2008

This issue: September 2009

Next issue: August 2010 (scheduled)

## Scope

### Period

FY2008 (April 1, 2008 to March 31, 2009)

In addition, some activities begun prior to FY2008 and activities during FY2009 (April 1, 2009 to March 31, 2010) are reported with notes.

### Organizations

In principle, all MOL Group companies that do business in Japan and overseas.

\* The MOL Group

Mitsui O.S.K. Lines, Ltd. and 329 consolidated companies (265 consolidated subsidiaries, 1 equity-method non-consolidated subsidiary, and 63 equity-method affiliates).

"The Company" in this report refers to Mitsui O.S.K. Lines, Ltd. (MOL).

### Data

Financial reports are based on consolidated results unless otherwise noted.

Our environmental performance is divided into the following three categories. Reported activities are based on No. 3 below, but data are available only for items covered in Nos. 1 & 2.

1. Activities conducted at MOL (including all operated vessels).
2. Activities at MOL and 58 consolidated subsidiaries in Japan, as well as activities conducted at equity-method affiliates—Kansai Kisen Kaisha, Meimon Taiyo Ferry Co., Ltd., and Nippon Charter Cruise, Ltd.
3. In addition to No. 2, activities conducted by 19 overseas subsidiaries.

■ Publications for Shareholders and Other Investors

Besides this report, MOL also publishes an annual report and an investor guidebook. The latest versions of all reports can be found on our website. <http://www.mol.co.jp/ir-j/shiryō/new.html>

■ The Paintings on the Cover

The paintings on the front cover were selected from some of the entries for the 4<sup>th</sup> MOL Kids Cruise operated in March 2009. The MOL Group likes to give children the opportunity to become more familiar with ships and the sea. It solicits drawings and essays about the sea from fourth to sixth grade elementary school children and invites selected children and their guardians to come on board the luxury cruise ship Nippon Maru. We hosted 153 pupil-guardian pairs in March 2009. Please see Page 31 for further details.

# MOL Group Corporate Principles

1

As a multi-modal transport group, we will actively seize opportunities that contribute to global economic growth and development by meeting and responding to our customers' needs and to this new era

2

We will strive to maximize corporate value by always being creative, continually pursuing higher operating efficiency, and promoting an open and visible management style that is guided by the highest ethical and social standards

3

We will promote and protect our environment by maintaining strict, safe operation and navigation standards

## The MOL Group at a Glance

### Corporate Profile (As of March 31, 2009)

<b>Name:</b>	Mitsui O.S.K. Lines, Ltd.
<b>President:</b>	Akimitsu Ashida
<b>Shareholders' equity:</b>	¥623.7 billion
<b>Number of shares issued:</b>	1,206,286,115
<b>Number of shareholders:</b>	122,875
<b>Shares listings:</b>	Tokyo, Osaka, Nagoya, Fukuoka
<b>Business:</b>	Multi-modal transport mainly by ocean-going vessels
<b>Number of MOL Group employees:</b>	10,012 (The parent company and consolidated subsidiaries)
<b>Number of Group companies:</b>	329 (The parent company and consolidated subsidiaries)
<b>Group fleet:</b>	821 vessels, 55,492 thousand DWT
<b>Head Office:</b>	1-1 Toranomon 2-chome, Minato-ku, Tokyo 105-8688, Japan
<b>Branches and offices in Japan*:</b>	Sapporo, Nagoya, Osaka, Kobe, Kyushu, Tomakomai, Hiroshima
<b>URL:</b>	<a href="http://www.mol.co.jp">http://www.mol.co.jp</a>

\*As of July 31, 2009

#### Overseas Network (34 nations)

Europe	Asia	North America	Others
<ul style="list-style-type: none"> <li>■ U.K.</li> <li>■ The Netherlands</li> <li>■ Germany</li> <li>■ Austria</li> <li>■ France</li> <li>■ Belgium</li> <li>■ Italy</li> </ul>	<ul style="list-style-type: none"> <li>■ Malaysia</li> <li>■ Singapore</li> <li>■ Thailand</li> <li>■ Vietnam</li> <li>■ Philippines</li> <li>■ China</li> <li>■ Taiwan</li> <li>■ South Korea</li> <li>■ Indonesia</li> </ul>	<ul style="list-style-type: none"> <li>■ India</li> <li>■ Sri Lanka</li> <li>■ Qatar</li> <li>■ Oman</li> <li>■ U.A.E.</li> <li>■ Cambodia</li> <li>■ Pakistan</li> <li>■ Lebanon</li> </ul>	<ul style="list-style-type: none"> <li>■ U.S.A.</li> <li>■ Mexico</li> <li>■ Brazil</li> <li>■ Chile</li> <li>■ Panama</li> <li>■ South Africa</li> <li>■ Nigeria</li> <li>■ Ghana</li> <li>■ Australia</li> <li>■ New Zealand</li> </ul>

#### Consolidated Subsidiaries in Japan (58 companies)

##### 1. Bulkships (5)

MO LNG Transport Co., Ltd., Mitsui O.S.K. Kinkai Ltd., MOL Tankship Management Ltd., Chugoku Shipping Agencies, Ltd., Tokyo Marine Co., Ltd.

##### 2. Containerships (7)

Utoc Corporation, Utoc Stevedoring Corporation, Utoc Logistics Corporation, Mitsui O.S.K. Lines (Japan), Ltd., International Container Terminal Co., Ltd., Shosen Koun Co., Ltd., Chiba Utoc Corporation

##### 3. Logistics (6)

MOL Osaka Nanko Physical Distribution Center Co., Ltd., International Container Transport Co., Ltd., Japan Express Co., Ltd. (Kobe), Japan Express Packing & Transport Co., Ltd., Japan Express Co., Ltd. (Yokohama), MOL Logistics (Japan) Co., Ltd.

##### 4. Ferry and Domestic Transport (9)

Sea-Road Express Corp., Searox Kitaichi Co., Ltd., MOL Naikou, Ltd., MOL Ferry Co., Ltd., The Diamond Ferry Co., Ltd., Diamond Line K.K., Blue Highway Express K.K., Blue Highway Express Kyushu Co., Ltd., Blue Highway Service K.K.

##### 5. Associated Business (20)

Ikuta & Marine Co., Ltd., Ube Port Service Co., Ltd., M.O. Tourist Co., Ltd., Kitanihon Tug Service Co., Ltd., Kusakabe Maritime Engineering Co., Ltd., Green Kaiji Kaisha, Ltd., Green Shipping, Ltd., Kosan Kanri Service Co., Ltd., Kosan Kanri Service West Corporation, Kobe Towing Co., Ltd., MOL Kaiji Co., Ltd., Mitsui O.S.K. Passenger Line, Ltd., Mitsui O.S.K. Career Support, Ltd., Mitsui O.S.K. Kosan Co., Ltd., Mitsui O.S.K. Techno-Trade, Ltd., Daibiru Corporation, Daibiru Facility Management Ltd., Nihon Tug-Boat Co., Ltd., Japan Hydrographic Charts & Publications Co., Ltd., Hokuso Kohatsu K.K.

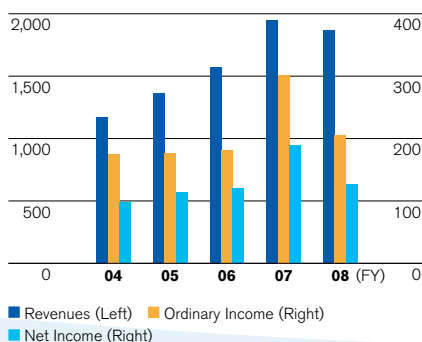
##### 6. Others (11)

MOL Accounting Co., Ltd., MOL Adjustment, Ltd., MOL Ship Management Co., Ltd., M.O. Engineering Co., Ltd., M.O. Cables Ship Ltd., M.O. Ship Tech Inc., M.O. Marine Consulting, Ltd., Orange PR Ltd., International Marine Transport Co., Ltd., MOL Information Systems, Ltd., Mitsui Kinkai Kisen Co., Ltd.

## Financial Highlights

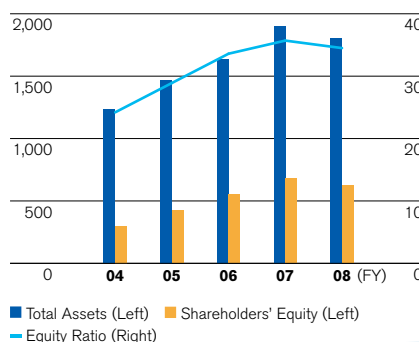
### Revenues, Ordinary Income, Net Income

(¥ billions)



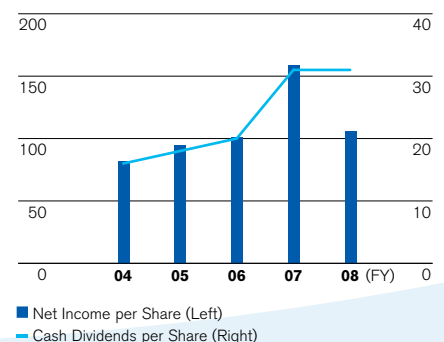
### Total Assets, Shareholders' Equity, Equity Ratio

(¥ billions, %)



### Net Income and Cash Dividends per Share

(¥)



# Our Business and Social Responsibilities

## Our Business

The MOL Group, with a core business of ocean shipping, engages in the transport of a broad range of commodities that contribute to industrial growth and better lives for people not only in Japan but also around the world. We run and develop our businesses, taking into consideration environmental and social issues as a player in an industry that is indispensable to the sustainable development of the world economy.

### Bulkships Dry Bulkers

Dry bulkers transport massive quantities of raw materials such as iron ore, coal, grain, and so on. The MOL Group, as the world's largest dry bulk operator, links the world through the stable transport of these vital commodities.



### Tankers

The MOL Group has one of the world's largest tanker fleets for energy transport. Our tanker fleet includes very large crude carriers (VLCCs) that transport crude oil, product tankers that carry refined petrochemical products, chemical tankers for liquefied chemical products, and LPG tankers for transporting liquefied petroleum gas.



### LNG Carriers

Liquefied natural gas (LNG) has drawn considerable attention as a clean energy resource. The MOL Group is a leading LNG transport company, having won acclaim for its advanced technologies and expertise.



### Car Carriers

MOL was the first Japanese shipping company to launch a pure car carrier (PCC). We are making further advances and employing new environmental technologies, such as vessels with lower wind and water pressure resistance. We have established a solid position among the world's car carrier fleets through not only quality car transport services, but also our environmental consciousness.



### Containerships

MOL operates a diverse fleet of containerships in all regions of the world. In addition to the key east-west routes linking Asia to North America and Asia to Europe, MOL also serves north-south and intra-Asia routes, providing a balanced network that covers the entire globe.



### Logistics

With our worldwide network of distribution centers, a state-of-the-art IT system and Group companies with extensive logistics expertise and know-how, MOL's logistics business integrates these capabilities to provide best-fit solutions and various services dovetailing with customer needs.



### Ferry & Domestic Transport Business

Offering one of Japan's largest ferry and domestic transport service lineups, MOL actively meets cargo owners' modal shift needs, thereby contributing to CO<sub>2</sub> reduction in the domestic transportation sector.



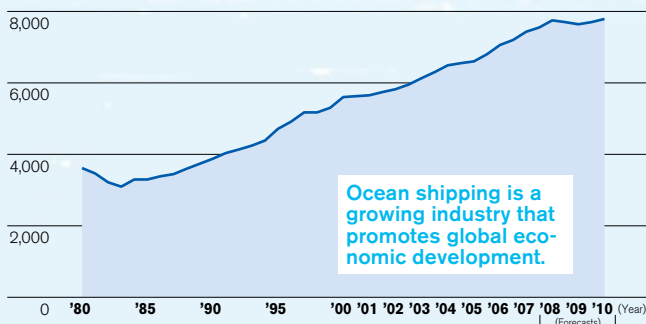
### Associated Businesses

The MOL Group runs and develops various associated businesses. These include a leasing business for office buildings and condominiums, mainly through key consolidated subsidiary Daibiru Corporation, one of Japan's largest tugboat businesses, and a cruise business that operates the *Nippon Maru*.



### Worldwide Trade Volume

(Million tons)



Source: Fearnleys Review

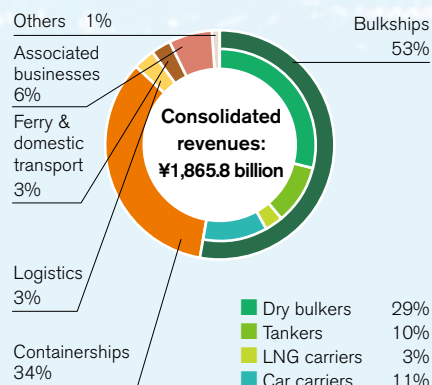
### Fleet

(As of March 31, 2009)

Dry bulkers	354
Tankers	175
LNG carriers	37
Car carriers	88
Containerships	114
Ferries and ships for domestic transport in Japan	46
Other	7
<b>Total</b>	<b>821</b>

(55,492 thousand DWT)

### FY2008 Consolidated Revenue by Segment



## Our Social Responsibilities

The MOL Group conducts business activities incorporating social fairness, ethics, and environmental consciousness, and aims to promote sustainable growth around the world through management that takes into consideration its various stakeholders.

### Top Management

#### Contributing to Sustainable Development of the World

The economic downturn catalyzed by the so-called Lehman Shock in the fall of 2008 dealt a blow to the international ocean shipping industry as well as economies worldwide. MOL has thus confronted a difficult business environment. But these conditions only crystallized for us the things we need to do well to carry out our duty as a key player in the global economy and achieve sustainable growth—ensure safe operation, tackle environmental issues and practice highly transparent management.



→ Top Management  
**P.04**

### Feature 1 Environmental Technologies

#### ISHIN:

**Innovations in Sustainability Backed by Historically Proven, Integrated Technologies  
—the Key to the Future Is in the Past**

MOL has developed and introduced of its own accord groundbreaking environmental technologies stepping ahead of the times. What kinds of ships are possible if MOL makes further innovations by ingeniously integrating its historically proven technologies? This section introduces an environment-friendly ship (car carrier) that MOL envisions for the near future, within the next five years.



→ Feature 1  
Environmental  
Technologies  
**P.06**

### Feature 2 Safe Operation Report Ensuring Safe Operation

Ensuring safe operation of vessels is the foundation of our business activities and, at the same time, one of the most important policies to protect the seas and oceans and global environment. Seas and oceans where we operate are closely intertwined with people's lives and have a public nature. For this reason, ensuring safe operation so as to protect the seas and oceans is our eternal mission. MOL is focusing on ensuring safe operation Group-wide with the recognition that it is an imperative for its business activities.



→ Feature 2  
Safe Operation  
Report  
**P.09**

## Despite tumultuous conditions, the MOL Group is committed to making further strides toward sustainable growth, underpinned by an unwavering corporate philosophy.

The economic downturn catalyzed by the so-called Lehman Shock in the fall of 2008 dealt a blow of an unprecedented magnitude to economies worldwide. The international ocean shipping industry was not spared the impact, as the drop-off caused by the economic crisis sent the shipping market into a tailspin and some overseas shipping companies faced the very real threat of bankruptcy as a result. MOL naturally experienced a difficult business environment. Indeed, 2008 was a year in which we experienced extreme highs and lows. But these conditions only crystallized for us the things we need to do well to carry out our duty as a key player in the global economy and achieve sustainable growth—ensure safe operation, tackle environmental issues and practice highly transparent management.

### Ensuring Safe Operation

MOL ADVANCE, our current midterm management plan which ends in March 2010, is based on the principal theme of “Growth with enhanced quality.” In this context, our two immediate top priorities are ensuring safe operations and improving the quality of transport services.

In order to achieve safe operations, it is vital that we take steps to prevent accidents from occurring based on an accurate recognition of the ever-changing risks at sea such as weather and sea conditions. This hinges on the skills, knowledge, experience and judgment of our seafarers at the front line of our operations. That’s why at MOL we put the development of quality seafarers above everything else. We work constantly to strengthen and upgrade the development and training of seafarers. I believe that our ability to secure skilled seafarers who satisfy our requirements is a decisive factor for maintaining safe operations. On our training vessel *Spirit of MOL*, we conduct safety education and basic training following a detailed curriculum for new cadets from around the world. Seafarers acquire not only seafaring skills, but also learn the proper mindset and customs expected of professional seafarers as well as teamwork as MOL mariners and finish with a sense of belonging to the MOL Group. By focusing on seafarer development, we are growing people who will ensure safe operation in the future. Fortunately, in fiscal 2008, MOL was involved in no major marine accidents. I believe that is a tangible result of largely satisfactory efforts to strengthen our safe operation system.

During the past fiscal year, piracy posed an emergent risk to the safe operation of vessels. Over the course of the 2008 calendar year, more than 100 ships belonging to various shipping companies were attacked by pirates off the coast of Somalia

and the Gulf of Aden near the African continent. Amid this proliferation in piracy, Japan invoked the maritime security operations provision of the Self-Defense Forces Law in March 2009, dispatching two navy escorts to shadow and guard ships in the area. While this deployment was the culmination of prompting by the shipping industry, I wish to express my appreciation for the Japanese government’s quick and effective response. Naturally, we also implemented our own anti-piracy initiatives. We bolstered ship lookouts, installed fire hoses on the sterns of ships to prevent boarding by pirates, and established “no-go” zones for our vessels ahead of international institutions. We thus took proactive steps of our own accord to address the piracy problem. The basis of safe operation is a commitment by all individuals in each position in the MOL Group to do what needs to be done without delay.

In the current recession, where the “survival of the fittest” is a key theme, ensuring the quality of transport services and a high level of safety management with no incidents are absolute musts if we are to continue developing further. We will therefore continue to take all necessary steps without compromise in the interests of safe operation.

### Tackling Environmental Issues

The international ocean shipping business operates based on the principles of free trade, meaning that companies can operate freely around the world with no distinction drawn between developed and industrializing countries. Furthermore, because this is a single international market, it makes sense that, in principle, all environment-related measures are applied



uniformly, equally and fairly to all sea areas and vessels. At present, the International Maritime Organization (IMO) is proceeding with discussions toward reaching a post-Kyoto Protocol agreement on the curtailment of greenhouse gas (GHG) emissions from international shipping. Looking ahead, I believe that this issue should be discussed by the IMO in order to establish fair and effective reduction measures based on the unique characteristics of the global maritime shipping industry.

MOL has already taken a number of productive steps to curtail GHGs. In terms of vessels and equipment, we have developed car carriers with lower wind and water resistance, developed and improved propeller boss cap fin (PBCF) systems, which make ships more energy efficient and improve fuel consumption, and added to our fleet one of the world's largest iron ore carriers, the *Brasil Maru*. Based on such initiatives in the past, we recently announced designs of eco-friendly ships which we believe are technically possible within the next five years by integrating the best of our technologies. In terms of vessel operation, we are also working to increase fuel efficiency through various other effective approaches. These include planning voyages with fuel consumption in mind and selecting the best route, taking into consideration weather and sea conditions.

### **Creating Better Working Environments**

Employees are one of the most important assets of the MOL Group. And in order to achieve our sustained growth, employees must always be aware of the public mission and social responsibilities of MOL's business, fully exert their individual abilities and perform their duties. We are helping them to do this by actively

working to create conducive working environments. One initiative in this regard is reducing overtime hours so that our employees can strike a better work-life balance. Properly managing work and personal time, so that employees can work productively helps maintain the health of employees and supports fuller lives all round. I think that this also leads to more creativity and efficiency at work. To reduce overtime hours, we ask employees to review their past approaches to work. At the same time, closer and greater communication is necessary in the workplace and this can be an opportunity for employees to reaffirm their roles. We are also determined to continue improving working conditions.

2009 was an auspicious year for MOL, marking the 125th anniversary of our foundation. One theory suggests that the lifespan of companies is only 30 years; we have outlived this by 4 times already, growing and developing along the way. The current global economic crisis is said to be a once-in-a-century crisis. However, we have already overcome a number of events that tested our resolve over the past 125 years.

As we press forward, we are committed to staying one step ahead of the competition and to continually searching for new and bold ways to strengthen our sustainability. The MOL Group will work tirelessly in these regards as a leading company in the marine shipping industry.

Akimitsu Ashida  
President

# 船舶維新

Senpaku ISHIN

Innovations in Sustainability backed by Historically proven, INtegrated technologies



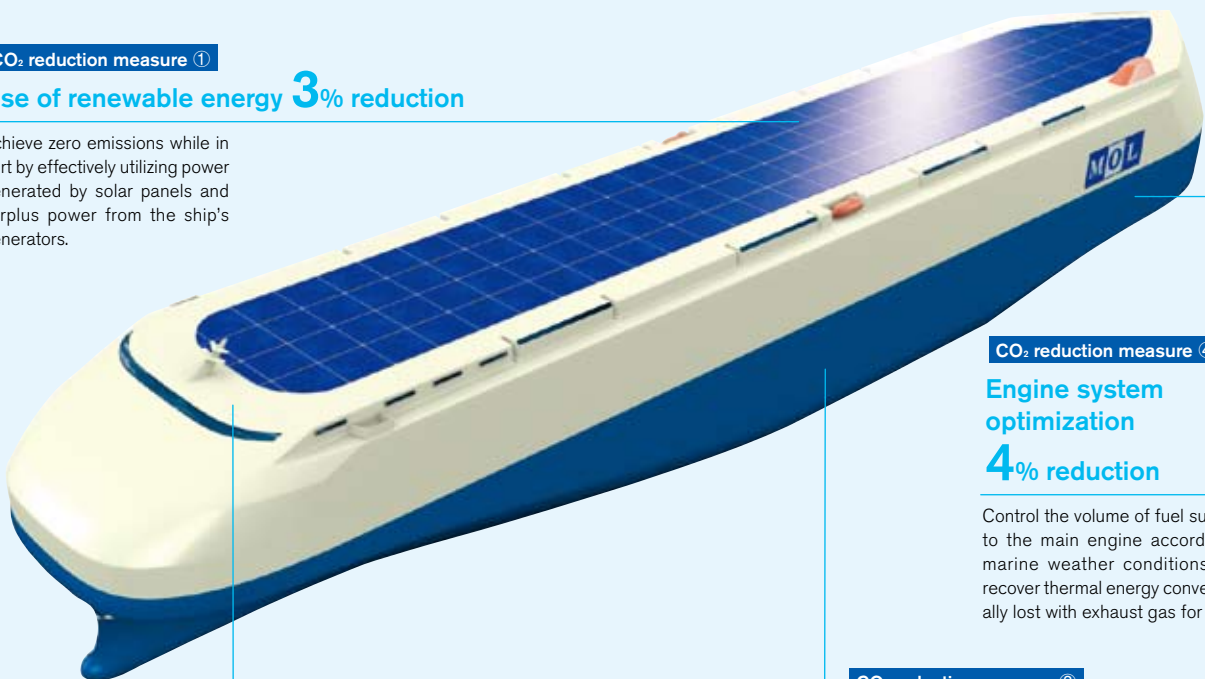
Our approach is reflected by the words "Senpaku ISHIN." Senpaku is a Japanese term for "vessel", and ISHIN is the Japanese word for a complete revitalization or reform. We also interpret ISHIN as "Innovations in Sustainability backed by Historically proven, INtegrated technologies" for this project.

MOL has for many years developed and introduced groundbreaking environmental technologies of its own accord that are a step ahead of the times. What kinds of ships are possible if MOL makes further innovations by ingeniously integrating its historically proven technologies? This section introduces an environment-friendly ship (car carrier) that MOL envisions as technically possible in the near future, within the next five years. We plan to announce advances with other types of vessels in the future.

**CO<sub>2</sub> reduction measure ①**

**Use of renewable energy 3% reduction**

Achieve zero emissions while in port by effectively utilizing power generated by solar panels and surplus power from the ship's generators.



**CO<sub>2</sub> reduction measure ④**

**Engine system optimization 4% reduction**

Control the volume of fuel supplied to the main engine according to marine weather conditions. And recover thermal energy conventionally lost with exhaust gas for reuse.

**CO<sub>2</sub> reduction measure ③**

**Reduction of friction drag 10% reduction**

Reduce friction drag with sea water by using anti-fouling paints with ultra-low frictional properties on the ship's hull.

**CO<sub>2</sub> reduction measure ②**

**Optimum voyage support system 5% reduction**

Make it possible to map out the shortest and most fuel-efficient route to a destination by utilizing the latest marine weather information and reflecting the operation status of the vessel in real-time.

**[Commentary] Streamlined, Energy-Saving Ships**

Car carriers, which transport finished automobiles, have a unique shape with a large area exposed to wind pressure, and therefore tend more than other vessel types to be pushed by the wind so that they move through the water at a diagonal to the direction they are traveling in. In order to reduce this tendency, which affects fuel efficiency, the Company has researched vessel shapes to lower wind resistance. The result of this research was the *Courageous Ace*, delivered in March 2003. Its design reduces wind resistance with a beveled, rounded superstructure at the bow and wind channels along the sides to enhance course stability.

The ship's bow and sides are more sculpted and, furthermore, the stern takes on a teardrop look, enabling the vessel to let wind flow smoothly until it passes completely (Patent pending).

**CO<sub>2</sub> reduction measure ⑤**

**Optimal hull design 3% reduction**

Pursue further fuel-efficiency gains by radically redesigning the shape under the waterline.





## Achieve Zero Emissions with Renewable Energy While in Port and Loading/Discharging

Through a combination of solar power generation and rechargeable batteries, we aim not only to reduce energy use considerably compared with conventional vessels, but also to achieve zero emissions while navigating in harbors and during loading/discharging operations by using electricity generated and stored during voyages in ports.

### CO<sub>2</sub> Emissions while at Sea 50% Reduction\*

The 7 CO<sub>2</sub> reduction measures mentioned in this section have the potential to reduce CO<sub>2</sub> emissions by a total of 41%. And if demand for larger vessels arises in the future, CO<sub>2</sub> emission reductions of up to 50% are possible with the implementation also of CO<sub>2</sub> reduction measure ⑧.

\* Per unit data, compared with MOL's conventional car carriers (car carriers capable of carrying 6,400 standard passenger cars)



#### CO<sub>2</sub> reduction measure ⑥

Reduction of wind pressure resistance  
**10% reduction**

Employ an energy-saving ship design with a teardrop-shaped stern to let wind flow smoothly.  
(For details, refer to the "Commentary" on Page 6)



#### CO<sub>2</sub> reduction measure ⑦

Optimizing propulsion efficiency  
**17% reduction**

Apply a propulsion system featuring an additional electric-powered propeller (contra-rotating propellers) that enables zero-emission propulsion while in harbors and reduce propeller energy loss dramatically by combining the latest Propeller Boss Cap Fins (PBCF).



CO<sub>2</sub> emissions  
**41% reduction**

#### CO<sub>2</sub> reduction measure ⑧

Further reduction in CO<sub>2</sub> emission rate in line with enlarging vessels that are compatible with the new Panama Canal **15% reduction**

#### Improvement of CO<sub>2</sub> Emission Rate with Larger Vessels

Expansion work on the Panama Canal is expected to be completed in 2014, allowing passage for vessels as wide as 48.8 m. It will be possible to increase the size of vessels if there is demand for larger car carriers.

MOL believes that the introduction of larger vessels and improvement of propulsion efficiency are an effective means for the shipping industry to perform its social duty of meeting burgeoning international demand for ocean shipping on the one hand while helping to tackle global warming on the other.

#### Twin Propeller Shafts, Main Engine Derating

As vessels become larger and wider, we will use twin propeller shafts, to achieve enhanced propulsion and much greater fuel efficiency.



CO<sub>2</sub> emissions **50% reduction**

#### "ISHIN" Website



Please visit our website at the following URL:  
<http://www.mol.co.jp/ishin/en/>



## Past Developments –The Evolution of MOL’s Car Carriers

MOL has for many years developed and introduced groundbreaking environmental technologies of its own accord that are one step ahead of the times. This section showcases examples of the Company’s innovations that have transformed its car carriers.



### November 2005 *Euphony Ace* delivered

Maximum load: 6,400 vehicles\*<sup>1</sup>

*Euphony Ace* is a cutting-edge “eco-ship” that has raised operating efficiency and is more environment-friendly.

**Main features:**

- Employs a low wind pressure resistant design (Refer to Page 7)
- Solar panels: Electricity generation 10 kW (10 households). Used to power lighting on the ship’s cargo decks
- Represents the world’s first pure car carrier with a wide upper deck. Increased output to 20 kW on the *Swift Ace*, which was delivered in May 2008; currently testing effective power generation capability in light of salt damage, vibrations and other conditions unique to ships toward full-scale practical application.
- Rubbish treatment system: Onboard organic rubbish is fed into the treatment system and turned into fertilizer, which is later unloaded.
- PBCFs (Propeller Boss Cap Fins): Refer to Page 20
- Heat-insulating paint: Refer to Page 20
- Exhaust gas purification system: Refer to Page 21
- Double-hull fuel tanks: Refer to Page 22



### 2003 *Courageous Ace* delivered

Maximum load: 6,400 vehicles\*<sup>1</sup>

This ship was the first to adopt a low wind pressure resistant design, which yielded greater energy savings and improved speed. Actual operation after delivery produced energy savings of between 5% and 8%. *Courageous Ace* was awarded the 2003 “Ship of the Year” award by the Society of Naval Architects of Japan (now The Japan Society of Naval Architects and Ocean Engineers). In 2004, the ship’s design was registered, and patents were obtained in Japan and South Korea in 2006.



### 1988 *Eternal Ace* delivered

Maximum load: 6,500 vehicles\*<sup>1</sup>

This ship was one of the world’s largest car carriers at the time and had a car deck on the upper end of the bow to increase the load it could carry.



### 1971 *Kanada Maru* delivered

Maximum load: 2,000 vehicles\*<sup>1</sup>

This pure car carrier had 9 car decks and around 250 vehicles could be loaded in 1 hour. Vehicles were carried on both outbound and inbound voyages.



### 1965 *Oppama Maru* delivered

Maximum load: 1,200 vehicles\*<sup>1</sup>

This vessel was Japan’s first oceangoing car carrier/bulk carrier. It was the first ship in Japan to employ the RORO system\*<sup>3</sup>; all ships at the time used the LOLO system\*<sup>2</sup>. Adoption of this system led to a dramatic improvement in loading efficiency, raising the number of vehicles that could be loaded per hour from 15–16 to approximately 100. On return voyages, it carried bulk cargo such as grains.

\*<sup>1</sup> Standard passenger cars

\*<sup>2</sup> LOLO system: Lift-on, Lift-off. An onboard crane is used to unload cars

\*<sup>3</sup> RORO system: Roll-on, Roll-off. Cars are driven up a ramp onto the ship.

## Strengthening MOL’s Technological Development

### Transfer of the MOL Technology Research Center (Opening of a New Environmentally Friendly Facility in 2010)

The MOL Technology Research Center was opened at its present location in Ota Ward, Tokyo, in 1982. Over the ensuing 27 years, the center has actively engaged in R&D. For example, it has analyzed bunker fuel and lubricating oil used on ships, developed bunker fuel pre-treatment equipment, researched ways of cutting CO<sub>2</sub> emissions, and improved storage and transportation technology, including developing refrigerated containers.

The new MOL Technology Research Center, which is being built in Kawasaki City, Kanagawa Prefecture, Japan, is an environmentally friendly facility, employing a host of environmental and energy-conserving technologies, such as solar power, natural light and ice thermal energy storage\*<sup>4</sup>. As a core facility in MOL’s R&D, the new center will step up research activities in a bid to help lower ship operating costs and develop environmental technologies.

\*<sup>4</sup> Technology that makes ice using off-peak low-rate electricity, which is melted and used for cooling.



# Ensuring Safe Operation

The MOL Group has learnt innumerable important lessons from the four serious marine incidents in fiscal 2006. While we have set ensuring safe operation as our primary strategic target, we are working very hard across the Group to promote and execute various measures to prevent serious marine incidents from occurring.



## An Unyielding Policy –Safe Operation Is Our Foremost Priority

As a company providing marine transport services, I believe that ensuring safe operation and preventing marine accidents is not only a foundation of corporate management but also our basic mission to fulfill in our role as a member of society.

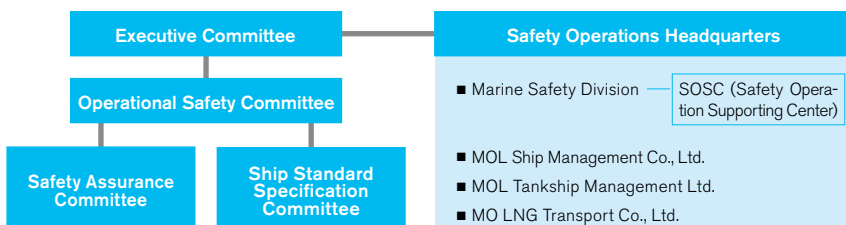
The MOL Group has analyzed the immediate and remote causes of past serious marine incidents from multiple angles. We have adopted numerous individual action plans to eliminate such causes and reinforce safe operation and are striving Group-wide to achieve the goals. Led by the Safety Operations Headquarters, which was formed in April 2007, we rigorously monitor progress with strategies in various fields, including the structure of facilities and equipment, education and training, and management and oversight systems. At the same time, we regularly review the results and make refinements and improvements as necessary. These activities are producing steady results.

The worldwide recession has made the business circumstances surrounding the shipping industry increasingly difficult, prompting us to engage in cost-cutting across the whole Group. During this cost-cutting drive, however, we will adhere to our basic policy which is to always treat the safe operation of our ships as our first priority. We have no intention of making misguided cost cuts that could result in an accident. We have made this policy clear to our seafarers at the frontline and land-based management staff, at the same time as we encourage them to continuously eliminate waste and inefficiencies in operations.



**Masaaki Nemoto**  
Executive Officer

### Safe Operation Management Structure



## Preventing Past Marine Incidents From Fading With Time and Implementing Safety Education

—ZERO HOUR 2006—



MOL has produced a package of six DVDs called *ZERO HOUR 2006* as part of efforts to ensure that the lessons learnt from the serious marine accidents that occurred in fiscal 2006 never fade with time and to foster a culture of safety within the Group.

The general version of the DVDs summarizing the accidents is shown to our seafarers as well as land-based management and staff worldwide to prompt them to think about what they can do in regards to safety in their workplaces. The detailed version of the DVDs, which looks closely at the circumstances surrounding each accident, the technical problems and countermeasures, is mainly shown to crew aboard ships and at Safety Conferences around the world to spark debate and as part of reenactment-centered training.

### OJT Instructor System

It is a fact that seafarer-related problems are one of the major factors in marine accidents or incidents. In order to maintain safe operations and the high quality of our transport services, it is necessary to continuously offer technical guidance and safety education to our seafarers based on MOL's quality standards.

In the past, superintendents in charge carried out vessel inspections of a ship's condition mainly when a ship was berthed. But some things are difficult to detect with these inspections. That's why we introduced the OJT instructor system. Identifying and rectifying danger points related to the operation and maintenance of facilities and equipment as well as unsafe seafarer actions while at sea is extremely effective in preventing accidents. Furthermore, providing safety advice and guidance based on the circumstances of each ship on the spot has considerable benefits in terms of seafarer development.

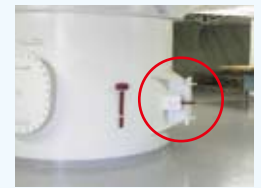
The OJT instructor system was initiated as part of measures to continually enhance safe operation. The trainers are selected from our experienced captains and chief engineers familiar with MOL's safe operation standards, and after undergoing specialized instructor training they are deployed to our operating vessels for a certain period of time to provide technical guidance.

### Assessing Onboard Safety Equipment From a Fail-safe Standpoint

—MOL Safety Standards—

MOL's vessels are built and equipped for safety in compliance with international regulations. But we have also established our own MOL safety standards. Since even the most outstanding employees make mistakes and equipment can always break down, we continuously reassess the MOL Safety Standards. This is so that if there is trouble

with one piece of equipment, another is available to take over its operation, or a backup system is in place. With this fail-safe system, human error or equipment failure shouldn't cause major problems with vessel operation.



Quick-release anchor chain system

For example, learning from experience with fires in the engine room, we have increased the number of remote control surveillance cameras so as to enable us to pinpoint the seat of a fire and quickly deal with it. And from past incidents involving the dragging of anchors and groundings, we have installed quick-release anchor chains, so that anchor chains can be cut loose if the anchor cannot be raised for whatever reason.

### Safety Operation Supporting Center (SOSC)

External factors that may disrupt safe operation include abnormal weather conditions such as large tropical cyclones that are blamed on global warming, and threats from piracy and terrorism around the world. So that our vessels can obtain the latest information about such situations and events and respond quickly and appropriately, on February 1, 2007 we established the Safety Operation Supporting Center (SOSC) in the Marine Safety Division in the Tokyo Head Office building.

The center is staffed 24 hours a day, 7 days a week, with 2 people always on duty, at least 1 of whom is an experienced captain. Using International Marine Satellite Organization (INMARSAT) technology and equipment, the center constantly monitors the position and movement of around 720 ships on 6 large monitors, as well as world weather information supplied by meteorology companies. If adverse weather, a tsunami or other event poses a risk to safe operation, the center immediately informs affected vessels, and meets with concerned parties on land to discuss a response. In this way, the center supports the decision-making of ships' captains to ensure vessel safety. SOSC also transmits wind and wave forecasts to ships berthed in any of the





approximately 1,100 major harbors worldwide, thereby helping ensure safety while they are docked or loading and unloading. SOSC plans to continue upgrading and enhancing systems and other functions with the aim of being a source of information that underpins the safe operation of MOL's expanding fleet into the future.

## BRM Drills Utilize the Lessons Learned From Incidents

### —Developing Speedy, Accurate Judgment—

Outstanding seafarers are critical to the safe operation of vessels no matter how good the specifications of ships and land-based support systems. For this reason, we operate MOL Training Centers in six countries (Japan, the Philippines, India, Montenegro, Indonesia and Russia). These centers provide training for both novice and veteran seafarers, with training matched to experience and rank as well as the type of vessel. Training covers a broad range of activities, from classroom lectures on theory to practical training using a bridge simulator and actual engines. The bridge simulator uses computer graphics to render specific sea lanes and harbors on large screens, enabling trainees to practice their navigation skills.

Once a voyage is underway, a ship is in operation every minute of the day and night, with the bridge manned in four-hour watches by an officer and a helmsman. The teamwork of the people on the bridge, and the skills to properly manage and use the various resources at hand (people, information and equipment) are what prevent marine accidents such as collisions and groundings caused by human error.

In order to hone these crucial skills, each training center includes a program on bridge resource management (BRM). With the cooperation of MOL Group company M.O. Marine Consulting, Ltd., we have developed a bridge simulator that enables trainees to experience bridge operations under various conditions. The simulator is capable of reproducing scenarios, including lessons from actual accidents, to enable trainees to learn the correct procedures and identify problems.

## Spirit of MOL

MOL recruits seafarers only after rigorous pre-induction selection of graduates of naval academies from around the world. New recruits are given training at MOL training facilities before an onboard assignment. Furthermore, as officer cadets, they undergo on-the-job training onboard vessels operated by MOL. In July 2007, with the aims of meeting increasing demand for seafarers and to improve basic onboard training, we launched the training ship *Spirit of MOL*. Cadets receive four to six months of intensive safety education and basic training aboard the *Spirit of MOL*, where they also gain specialist navigation and marine engineering skills and learn how to conduct themselves as a crew member. What's more, we believe that by experiencing the joys and hardships of training together, these impressionable young cadets who come from many different countries (the Philippines, India, Vietnam, Indonesia, Russia, the Ukraine and Panama) will gain essential multi-cultural understanding, develop strong bonds of cooperation and take pride in becoming MOL seafarers.

Volunteer activities as well as shipboard training have considerable benefits in terms of both cultural education and social contribution. In June 2008, when Iloilo City and surrounding areas in the Philippines were devastated by a typhoon, the *Spirit of MOL* helped deliver relief supplies for the government of the Philippines, and crew members and cadets pitched in with local restoration activities. The government of the Philippines subsequently recognized these activities with an official letter of appreciation.



# CSR Programs—FY2008 Achievements and FY2009 Targets

	FY2008 Main Targets	FY2008 Achievements
<b>Compliance</b>	<ul style="list-style-type: none"> <li>Reinforce system through continual efforts.</li> </ul>	<ul style="list-style-type: none"> <li>Took steps to ensure full compliance awareness of the antimonopoly law and insider trading among employees by utilizing in-house lectures and e-learning.</li> </ul>
<b>Corporate Governance</b>	<ul style="list-style-type: none"> <li>Evaluate operational status of internal control system, and verify the results.</li> </ul>	<ul style="list-style-type: none"> <li>Concluded assessment and verified proper controls are in operation for the internal control system over financial reporting as mandated by Japan's Financial Instruments and Exchange Act.</li> </ul>
<b>Care for Human Rights, Employees</b>	<ul style="list-style-type: none"> <li>Further enhance health care system.</li> <li>Discuss renewal of welfare facilities.</li> <li>Review pension system.</li> <li>Reduce overtime work.</li> <li>Discuss employee salary system with a stronger emphasis on contributions.</li> <li>Recruit and train core employees (non-Japanese) for overseas Group companies.</li> <li>Further study the system considering the balance between work and private life.</li> </ul>	<ul style="list-style-type: none"> <li>Remodeled the Company clinic while increasing floor space; increased medical staff by adding a doctor responsible for diabetes treatment.</li> <li>Conducted health checks for personnel working long hours and elicited feedback on results.</li> <li>Conducted mental health seminars and introduced program to help employees return to work.</li> <li>Determined policy for Company dormitories and housing, and began studying timing for enactment.</li> <li>Continued studying options while closely monitoring the situation.</li> <li>From December 2008, internally promoted overtime reduction measures (lights off on "No Overtime Day" each Wednesday, tougher overtime approval process); from January to March 2009, average overtime was 8.6 hours/month, down 12% year on year.</li> <li>Put more importance on performance in determining manager bonuses.</li> <li>Selected six young executive candidates from overseas Group companies in the Liner Division and initiated two-year training course.</li> <li>Continued studying options while referring to legal requirements.</li> </ul>
<b>Environmental Measures</b>	<ul style="list-style-type: none"> <li>Put further efforts toward energy saving, especially reduction of fuel use.</li> </ul>	<ul style="list-style-type: none"> <li>Promoted reduction of fuel use continuously and achieved mid-term target early, but CO<sub>2</sub> emissions per unit load increased in comparison with FY2007 mainly due to a decrease in seaborne trade.</li> </ul>
<b>Safe Operation, Risk Management</b>	<ul style="list-style-type: none"> <li>Ensure zero serious marine incidents while enhancing information from vessels and increasing quality of safe operation management and risk management.</li> <li>Further develop content of safe operation information shared on Global Portal Web site.</li> <li>Expand efforts to develop Company seafarers through effective utilization of MOL-owned training ship and enhance basic training and drills to ensure safe operation.</li> <li>Continually enhance standardization of training programs and equipment at MOL training centers, and broadly expand educational campaign so that CBT (Computer Based Training) is more widely used in places where it has already been introduced as the second stage of development.</li> <li>Expand adoption of the Port To Port Boarding Audit Support System to all our operated vessels. Discuss and implement measures to be taken in ship management companies and so on, as a result of the program executed during FY2007.</li> </ul>	<ul style="list-style-type: none"> <li>Maintained record of zero serious marine incidents by improving the FMS Safety system, which we developed with Weathernews Inc., to monitor various phenomena possibly affecting safe operation and determine the movement of all vessels, reinforcing Safety Operation Supporting Center (SOSC) functions and promoting measures to enhance safety.</li> <li>Posted safe operation information from each division under the Safety Operations Headquarters on the Global Portal Web site and initiated site operation.</li> <li>Utilized posts for trainees on training vessels efficiently and achieved an average utilization rate of 88% for the year. Also, enhanced education and training on training vessels through an improved training vessel assignment system and incorporating training at onshore MOL training centers.</li> <li>Continued standardizing training by unifying training programs and through cross-training of instructors. Boosted CBT recognition and usage rates through sessions with main ship management companies referring to graphed monthly usage record.</li> <li>Developed and implemented scheme for the Port To Port Boarding Audit Support System for chartered vessels, and extended the system to all MOL operated vessels; based on prior experience in port-to-port boarding audit support, began studying the introduction of an OJT Trainer System to conduct training with an emphasis on HSE instruction.</li> </ul>
<b>Disclosure, Accountability</b>	<ul style="list-style-type: none"> <li>Hold media response drills for emergencies in South America or Oceania.</li> <li>Draw up media response manual for major subsidiaries (targeting the regions that do not have the manual and new companies).</li> <li>Increase various stakeholders' interest in ocean shipping, vessels, and MOL group, and increase their understanding.</li> <li>Implement a briefing session on media response to personnel who will be assigned to overseas subsidiaries.</li> </ul>	<ul style="list-style-type: none"> <li>Changed training venues to Singapore, Kuala Lumpur, and Shanghai, and conducted emergency media response drills targeting local subsidiaries and ship management companies in countries across Asia.</li> <li>Nearly completed.</li> <li>Continued disclosing through seminars for new employees and provision of content to regular newspapers, industry papers, televised media, and others. Worked to inform a broad section of the public about MOL through full cooperation in the publication of an A to Z book on shipping by a general publishing firm, and a <i>Tokyo Shimbun</i> news feature called "Maritime Industry in Japan."</li> <li>Held several briefing sessions from June to July for personnel assigned to overseas subsidiaries.</li> </ul>
<b>Social Contribution</b>	<ul style="list-style-type: none"> <li>Continually work on existing activities.</li> <li>Implement activities towards a sustainable society.</li> </ul>	<ul style="list-style-type: none"> <li>Implemented the 4th MOL Kids' Cruise.</li> <li>Hosted tours for teachers and students.</li> <li>Donated to Museu Historico da Imigracao Japonesa no Brasil Archive Project in Brazil.</li> <li>Took part in mangrove reforestation project in Thailand.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>Publicize the Company's management policies and presence by new ad design (common all over the world).</li> </ul>	<ul style="list-style-type: none"> <li>Heightened the Company's appeal by placing ads with the powerful design showing, "our ships traverse the ocean, with sights on the farthest horizons," in various media. Also posted ads recruiting MOL Kids' Cruise participants.</li> </ul>

# The MOL Group's Current CSR Activities

## FY2009 Main Targets

- Rigorously ensure compliance through continual efforts.
- Refine and operate internal control system effectively to ensure proper controls continue to function.
- Further enhance health care system.
- Reform pension system.
- Reduce overtime work further.
- Discuss a personnel system with a stronger emphasis on contribution.
- Instill an awareness of human rights through enlightenment training.
- Conduct an employee satisfaction survey.
- Continue efforts to save energy, especially to reduce fuel use.
- Strengthen response to related environmental laws and regulations.
- Ensure zero serious marine incidents while continually enhancing information from vessels and increasing quality of safe operation management and risk management.
- Expand and update content and improve usability, including searchability from topics.
- Continue to expand efforts to develop Company seafarers through effective utilization of an MOL-owned training ship, and enhance basic training and drills to ensure safe operation.
- Continue to enhance standardization of training programs in all MOL training centers. Furthermore, continue educational activities to promote the wider use of CBT.
  - a) Resume distribution of the CBT newsletter to relevant parties.
  - b) Create individual CBT reports for use when briefing personnel before boarding. Plan to upgrade CBT and improve the management system.
- Continue Port to Port Boarding Audit Support System, giving priority to vessels that have had many problems in the past.
- Implement OJT Trainer System.
- Formulate business continuity plan.
- Look at holding emergency media response drills in Europe and elsewhere.
- Increase various stakeholders' interest in ocean shipping, vessels, and the MOL Group, and increase their understanding.
- Implement a briefing session on media response to personnel who will be assigned to overseas subsidiaries.
- Study and implement activities that are closely associated with MOL's business domains.
- Publicize the Company's management policies and presence through new ad design (common all over the world).



**Kenichi Yonetani**

Executive Vice President  
Chairman of CSR and Environment Committee

## Fiscal 2008 Activities in Review

“Steering True for Quality Growth,” which was our slogan for all new advertising worldwide in fiscal 2008, powerfully promoted MOL’s management policy to stakeholders. Through high-quality transport services backed by our rigorous systems to ensure safe operation, MOL can contribute to society and sustainable growth around the world. Firmly believing that, we have indeed steered straight ahead. Thanks to uncompromising safety measures and risk management, there were no serious marine incidents at MOL again in fiscal 2008. In terms of corporate governance, we completed an assessment of our internal control system, which confirmed that this system is functioning properly. In order to create a better working environment, we implemented various measures to reduce overtime work and strengthen our health management system. In terms of environmental protection, CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>x</sub> emissions per unit load increased in comparison with fiscal 2007 mainly due to a decrease in seaborne trade, but decreased by 1%, 1% and 9%, respectively, compared with the fiscal 2005 benchmark year.

## Fiscal 2009 Activities

Today, environmental problems are drawing the concern of many people around the world. While widely promoting the high energy efficiency of ocean shipping, we will enhance our initiatives to reduce greenhouse gases (GHGs) by ensuring that we operate vessels efficiently and by developing breakthrough technologies.

Ensuring safe operation is a never-ending goal. In fiscal 2009, we will make sure again that there are no serious marine incidents by enhancing and refining the SOSC, our training vessel, our Port to Port Boarding Audit Support System and other systems and structures. From a risk management standpoint, we have established a dedicated organization to quickly formulate a business continuity plan with a Group-wide framework that factors in the possibility of a large-scale earthquake and outbreak of a new strain of influenza. And, from the perspective of social contribution and information disclosure, we will continue and realign activities that allow people inside and outside MOL in Japan and overseas to be able to see the role of shipping, which contributes to industrial growth and better lives for all through stable transportation operations.

Fiscal 2009 is the final year of our midterm management plan MOL ADVANCE. Through our pursuit of the main theme of this plan, “Growth with enhanced quality,” we will aim to achieve sustainable growth as well as ensure safe operation and global environmental protection, as set forth in the MOL Group’s Corporate Principles.

# The MOL Group's Approach to Corporate Social Responsibility (CSR)

We believe CSR encourages sustainable, synergistic growth of corporate entities, society, and the entire world through management policies based not only on economic concerns, but also consideration for the Company's various stakeholders. We also believe that a corporation should fundamentally incorporate social fairness, ethics and environmental care into its business activities.

## Objectives of MOL Group's CSR Activities

### 1. Realizing our corporate principles

The MOL Group Corporate Principles state that we will contribute to society as a multi-modal transport group. To realize this corporate philosophy, we will comply with social norms and have a strong consciousness of corporate ethics, regarding compliance as a basic and minimum requirement, and conduct highly transparent corporate governance. And we are keenly aware that ensuring safe operation is fundamental to our Group's corporate activities and environmental protection. We have a no-compromise approach to ensuring safe operation.

### 2. Maintaining a good and sound relationship with each stakeholder

Our stakeholders vary and are all over the world since the ocean shipping business has developed on a global scale. We place the highest value on our relationships with stakeholders and continue to build up stronger partnerships.

### 3. Sustainable growth by reinforcing governance and risk management

While maintaining transparent corporate management, we conduct thorough risk management activities to prevent compliance violations and the loss of stakeholders' trust, for example, due to a large-scale incident. We also focus on environmental protection, as a corporation whose activities place a certain burden on the environment.

### 4. Increasing corporate value as a result of CSR activities

Through these abovementioned activities, we continually reconfirm our awareness of how our Group is viewed by society, and link it with an increase of our corporate value as a group.

## Participating in the UN Global Compact

We strive to build good relationships with various stakeholders all over the world, and contribute to a global framework to realize sustainable growth. In March 2005, we became the first Japanese shipping company to join the United Nations Global Compact. The Global Compact advocates support of 10 principles in 4 fields—human rights, labor, the environment, and anti-corruption. Participating companies are expected to demonstrate strong corporate citizenship to address various issues faced by modern society, through support and execution of these 10 principles. We also conduct CSR activities in cooperation with the Global Compact Japan Network (GCJN), which is made up of Japanese participating members.

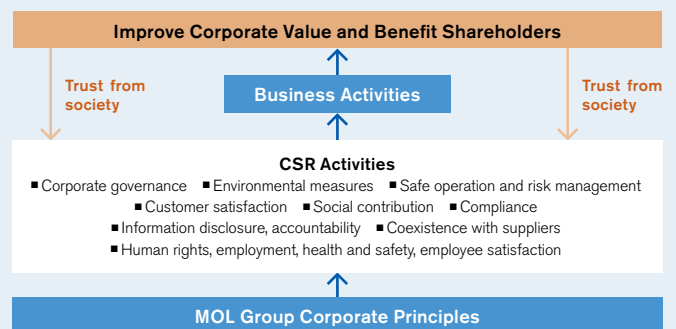


The Global Compact emblem

## Relationships with Stakeholders



## The MOL Group Corporate Principles and Positioning of CSR Concepts and Activities





# Corporate Governance and Compliance

## Basic Concept of Corporate Governance

MOL puts emphasis on frameworks for improving the transparency of corporate management from the shareholders' viewpoint and maximizing stakeholders' benefits through optimum allocation of management resources. In the MOL Group Corporate Principles, this concept is stated as "We will strive to maximize corporate value by always being creative, continually pursuing higher operating efficiency, and promoting an open and transparent management style that is guided by the highest ethical and social standards." We have put in place various systems accordingly.

## Clarifying Each Governance Function

The Board of Directors comprises eight internal and three outside directors (as of July 2009). The Corporate Planning Division provides the outside directors with advance explanations of Board of Directors' meeting agenda items, and reports important issues to them on a case-by-case basis. This provides a framework that allows the supervisory functions of outside directors to work effectively.

Regarding business execution, MOL introduced the executive officer system in 2000. The executive officers speed up management by conducting business execution based on the policies decided by the Board of Directors. The Executive Committee, as the supreme decision-making body at the business execution level, functions as a deliberative body on key matters related to business execution based on the policies decided by the Board of Directors.

The Company has adopted the corporate auditor system, and two of the four auditors are appointed from the outside. In May 2006, to increase the independence of the auditors, we established the Corporate Auditor Office as an organization directly controlled by the corporate auditors and Board of Auditors, thus enhancing a system that allows for more practical and efficient corporate auditing.

The Financial Instruments and Exchange Act came into force in fiscal 2008 and required an assessment and report of the internal control system for ensuring the effectiveness of financial reporting. MOL conducted such an assessment led by the Internal Audit Office. As a result, MOL concluded that internal controls over financial reporting at MOL were effective and, in June 2009, an internal control

report containing this assessment by management was submitted to the Kanto Local Finance Bureau in Japan (Details of this internal control report were confirmed to be appropriate in the internal control audit report by the external auditors). Beyond meeting legal requirements, MOL continues to enhance the transparency, standardization, and efficiency of business operations. In addition, we continue to enhance the internal control system to flexibly meet changes in the business climate and meet the demands of our stakeholders further.

## Approach to Compliance

MOL believes compliance means more than just strictly complying with legislation and internal rules (including voluntary "rules of conduct"); it also covers corporate activities and daily operations based on social norms and corporate ethics.

## Organizations Responsible for Compliance

### Compliance Committee

The Company formed the Compliance Committee as a subordinate organization of the Executive Committee, with the Executive Vice President as chairman. The membership comprises Executive Officers responsible for the Internal Audit Office, the Human Resources Division, and the Corporate Planning Division. The committee aims to thoroughly apply and reinforce the Company-wide compliance system, and determines penalties for violations.

### Compliance Officers

General managers of divisions, offices, and branches are appointed as compliance officers. They take a thorough approach to compliance as the person responsible, and are also required to report to the Compliance Committee Secretariat Office and take necessary corrective actions.

### Compliance Advisory Service Desk

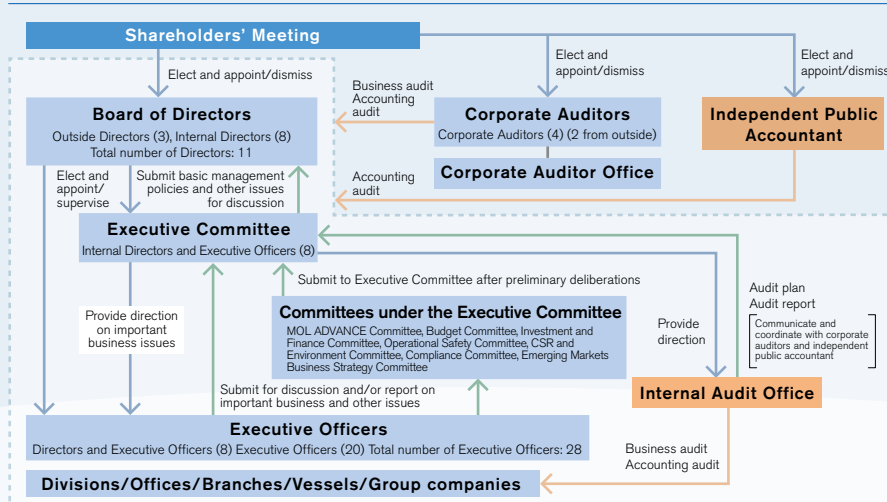
MOL has a Compliance Advisory Service Desk. The General Manager of the Internal Audit Office, independent from divisions, offices, and branches, is responsible for the desk. The person reporting an issue will receive feedback on how the issue was resolved. In addition, those reporting an issue and those who cooperate in the investigation are protected from any retribution or unfair treatment.

## Basic Policies for Compliance

(Compliance Rules Article 3)

- (1) Strive to follow the MOL Corporate Principles and make them a reality.
- (2) Always recognize the public mission and social responsibilities of MOL's business, and maintain the trust of the company's stakeholders.
- (3) Strictly comply with laws, regulations, and so on, and conduct fair and transparent corporate activities in the context of social norms and corporate ethics.
- (4) Never yield to antisocial influence, and never be a party to antisocial acts.

## Corporate Governance Structure (As of July 2009)



## Environmental Management Policy

The MOL Group is well aware of the environmental burden created by its business activities and always seeks to offer more environment-friendly services through various environmental protection measures such as launching environment-friendly ships, operating vessels with minimum environmental impact, taking various steps to tackle global warming, enhancing energy savings and efficiency improvement, reducing waste, limiting air and water pollution, recycling resources, and developing and adopting environmental technologies.

### MOL Group Environmental Policy Statement

As one of the world's leading multi-modal transport groups, the MOL Group is committed to protecting the health of our marine/global environment and therefore promotes and supports policies that:

1. Protect all aspects of the marine/global environment and foster safe operation;
2. Comply with all environmental legislation and regulations that we are required to by law, and all relevant standards and other requirements that we subscribe to. And, whenever possible, further reduce the burden on the environment by setting and achieving even tougher voluntary standards;
3. Periodically review and revise our environmental protection measures on the basis of our framework for setting and reviewing environmental objectives and targets;
4. Conserve energy and materials through recycling and waste reduction programs;
5. Purchase and use environmentally safe goods and materials;
6. Promote the development and use of environmentally safe technology;
7. Educate and encourage group employees to increase their focus on protection of the environment through enhanced publicity efforts, and communicate our Environmental Policy to group employees;
8. Publish our Environmental Policy Statement and disclose our environmental information on a regular basis;
9. Always strive to ensure that our business activities contribute to and adequately support worthy environmental protection activities.

#### ISO14001 Certification

(Same scope as MOL EMS 21, our environmental management system)



ISO14001 certification

#### [Scope]

- All divisions in the MOL Head Office and all MOL-operated vessels (except charter vessels on contracts of one year or less)
- All divisions of Mitsui O.S.K. Passenger Line, Ltd. Head Office and the cruise ship *Nippon Maru*
- All divisions of the MOL Ferry Co., Ltd. Head Office and their operated ferries/RORO ships

#### [Scope of application]

Business activities on local sites and head offices related to ocean transport, total logistics and cargo transport services, cruise services of the cruise ship *Nippon Maru*, and ocean transport services of passenger and vehicle cargo by ferries and RORO ships

#### [Auditing authority]

Det Norske Veritas AS (DNV) in Norway

#### [Accreditation]

Read Voor Accrediate (RVA) in the Netherlands

#### MOL Group Companies with Green Management Certification

Company name	Acquired month	Company name	Acquired month
International Container Transport Co., Ltd.	October 2005	Utoc Logistics Corporation	February 2007
The Diamond Ferry Co., Ltd.	November 2005	Kobe Towing Co., Ltd.	March 2007
Meimon Taiyo Ferry Co., Ltd.	December 2005	International Container Terminal Co., Ltd.	June 2007
Diamond Line K.K.	February 2006	Green Shipping, Ltd.	July 2007
Green Kaiji Kaisha Ltd.	March 2006	Shosen Koun Co., Ltd.	October 2007
Kansai Kisen Kaisha	May 2006	Ube Port Service Co., Ltd.	November 2007
Nihon Tug-boat Co., Ltd.	August 2006	Kitanihon Tug Service Co., Ltd.	June 2008
Japan Express Packing & Transport Co., Ltd.	November 2006		

## Environmental Management System

Our Group has two unique environmental systems—MOL EMS21 and the MOL Group Environmental Target System—as mechanisms to promote our business activities in line with the MOL Group Environmental Policy Statement and we have been reducing our environmental burden.

**MOL EMS21:** We introduced our environmental management system—MOL EMS21—in April 2001. In January 2003, we expanded its scope to all our operated vessels (except charter vessels on contracts of one year or less), and acquired internationally recognized ISO14001 certification. Furthermore, the scope was extended to Mitsui O.S.K. Passenger Line, Ltd. in September 2003 and to MOL Ferry Co., Ltd. in January 2004.

## System to Promote Environmental Management

At MOL, under the president who has ultimate decision-making authority, the CSR and Environment Committee, a subcommittee of the executive committee, discusses basic policies on environmental issues, and operates MOL EMS21 and the MOL Group Environmental Target System.

## Environmental Audits

In the MOL EMS21 system, the director responsible for environmental management (chairman of the CSR and Environment Committee) confirms and assesses how effectively the system functions, based on internal audits held at least once a year. The internal audits are conducted by the CSR and Environment Office, Corporate Planning Division, targeting all divisions in the Tokyo Head Office, and the Marine Safety Division implements environmental inspections on our vessels. Det Norske Veritas AS (DNV), an ISO14001 external certification body, holds an annual audit and a renewal assessment every three years.

## Environmental Accounting

### Environment Protection Costs

Category	Items	FY2008 achievements (Unit: ¥ million)	
		Investment	Cost
(1) Costs in business areas			
Global environmental protection	Measures to reduce exhaust gas from vessels	608	310
	Investment in onshore facilities	0	7
Resource cycle	Measures to reduce waste from vessels	0	4
	Office related	7	60
(2) Costs for management activity	Environmental management activities	0	69
(3) Costs for R&D	R&D	17	79
(4) Social activity costs	Social contribution activities	0	24
	Total	632	553

### Environmental Protection Effects

Category	Details of effects	Index	FY2008	FY2007	Effects
(1) Effects related to resources invested in business activities	Total energy volume input	Fuel (g/ton · mile)	1.38	1.42	-0.04
		CO <sub>2</sub> (g/ton · mile)	4.606	4.423	+0.184
(2) Environmental burden of business activities	GHG, etc. emissions	NO <sub>x</sub> (g/ton · mile)	0.127	0.122	+0.005
		SO <sub>x</sub> (g/ton · mile)	0.081	0.079	+0.002

## The MOL Group Environmental Target System Covering 79 Group Companies

The MOL Group implements the MOL Group Environmental Target System covering main Group companies in Japan and overseas. Regarding the environmental burden due to each company's business activities, every fiscal year, each company sets its own environmental targets based on general guidelines, and sets out an action plan to achieve those targets. Data from each company regarding its environmental burden (consumption of fuel, electricity, and paper, and generated waste), are collected and the Group-wide environmental burden is tabulated. (Refer to page 18.) Currently, the program covers 79 companies, including 60 Group companies in Japan and 19 overseas affiliates and subsidiaries.

## The 3rd MOL Group Environmental Award

The MOL Group Environmental Award was founded in fiscal 2005 to raise awareness and motivation among Group executives and employees about environmental protection activities, and to give an incentive to enhance environmental management throughout the Group.

The MOL Group Environmental Award is presented to divisions and offices in the Head Office, vessels, and Group companies that develop and introduce the best environmental technologies and activities during the fiscal year.

Outstanding performance award	Ports and Terminals Group, Liner Division, Shosen Koun Co., Ltd. (Activities to reduce environmental burden at Kobe International Container Terminal (KICT))
Outstanding performance award	Diamond Ferry Co., Ltd. (The <i>Sun Flower Gold</i> , Japan's first twin-engine, single-shaft, diesel-powered ferry, received the ShipPax Award 2008)
Excellence award	Mitsui O.S.K. Techno Trade, Ltd. (The first in the MOL Group to be certified for the Eco Action 21 program formulated by Japan's Ministry of the Environment)

The above table shows awards in fiscal 2007. Fiscal 2008 awards are under deliberation and plans call for them to be awarded at the Group Management Meeting scheduled in September 2009.

### FY2008 Environmental Accounting

#### Scope of tabulation

Environmental and social contribution activities in the Head Office and on vessels of Mitsui O.S.K. Lines, Ltd. (non-consolidated)

#### Tabulation period

FY2008 (April 2008–March 2009) (However, environmental protection costs include depreciation and amortization of environmental investments in and before FY2007)

Environmental accounting was first reported by MOL in the Environmental Report released in September 2001.

#### Reference guidelines

Japan's Ministry of the Environment "Environmental Accounting Guideline (FY2005)"

Notes:

- Investment and costs concerning safe operation are not included in the chart at the left.
- The costs and investments included in the chart at the left include only independent environmental measures, and not costs and investments required by laws and regulations.

# Environmental Burden of the MOL Group (FY2008)

The MOL Group conducts a range of business activities on land and at sea, including international shipping. In the course of those activities, we place a burden on the environment mainly associated with fuel consumption. The following is a summary of MOL's and the MOL Group's environmental impact, such as consumption of fuel, electricity, and office paper during fiscal 2008.

The MOL Group is working to reduce these environmental impacts.

## Activities at Sea (Vessels)

	INPUT		OUTPUT	
<b>MOL (non-consolidated)</b>	Fuel oil (C oil*)	5,920 thousand tons	CO <sub>2</sub>	18,286 thousand tons
	Diesel oil (A oil**)	70 thousand tons	NOx	503 thousand tons
			SOx	323 thousand tons
<b>Group companies (domestic shipping)**</b>	Fuel oil (C oil)	242 thousand tons	CO <sub>2</sub>	788 thousand tons
	Diesel oil (A oil)	17 thousand tons	NOx	22 thousand tons
			SOx	—*5
<b>Group companies (international shipping)**</b>	Fuel oil (C oil)	399 thousand tons	CO <sub>2</sub>	1,300 thousand tons
	Diesel oil (A oil)	27 thousand tons	NOx	36 thousand tons
			SOx	—*5

## Activities on Land

	INPUT		OUTPUT	
<b>MOL (non-consolidated)</b>	Fuel	44 kl	CO <sub>2</sub>	1,145 tons
	Electricity	1,878 thousand kWh	NOx	0.55 tons
	Water	3,714 m <sup>3</sup>	Waste	107 tons
	Office paper	7,760 thousand sheets*7		
<b>Group companies**</b>	Fuel	8,071 kl	CO <sub>2</sub>	97,637 tons
	Electricity	124,259 thousand kWh	NOx	48 tons
	Municipal gas	3,378,764 m <sup>3</sup>	Waste	2,543 tons
	LPG	167 tons		
	Heat	3,058 GJ		
	Water	679,404 m <sup>3</sup>		
	Office paper	49,654 thousand sheets*7		

\*1 C oil (Marine fuel oil): Mainly for vessel main engines  
 \*2 A oil (Marine diesel oil): Mainly for onboard generators  
 \*3 Ube Port Service Co., Ltd., Kitanihon Tugboat Co., Ltd., Green Kaiji Kaisha, Ltd., Green Shipping, Ltd., Kobe Towing Co., Ltd., Mitsui O.S.K. Techno-Trade Co., Ltd., MOL Ferry Co., Ltd., The Diamond Ferry Co., Ltd., MOL Naikou, Ltd., Nihon Tugboat Co., Ltd., and Meimon Taiyo Ferry Co., Ltd. (11 companies in total) (As of March 31, 2009)  
 \*4 M.O. Cablesip Ltd., Mitsui O.S.K. Kinkai, Ltd., Mitsui O.S.K. Passenger Line, Ltd., and Tokyo Marine Co., Ltd. (4 companies in total).  
 \*5 Data on SOx emissions of Group companies is not available.  
 \*6 All consolidated subsidiaries in Japan, excluding some companies whose environmental burden is negligible. In addition, this category includes the actual figures for land-based activities such as terminals and on-land transport, as well as the environmental burden associated with consumption of such fuels at offices.  
 \*7 Converted to A4 size.

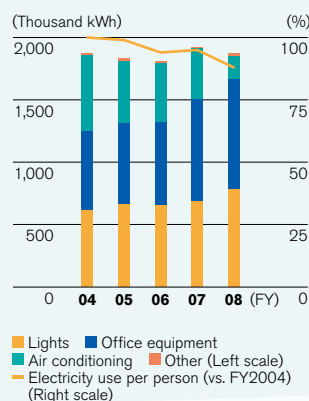
## Measures at Offices



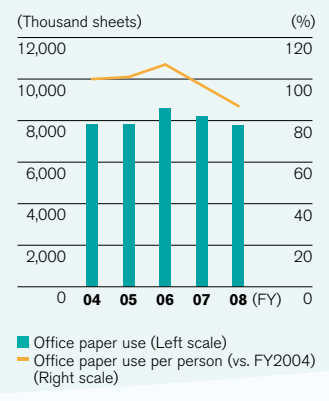
MOL Head Office Building

Through MOL EMS 21 and the Group Environmental Target System, the MOL Group strives to reduce the environmental impact generated by office operations (office paper, electricity, waste) as well as in land and sea transportation activities. In January 2009, we completed refurbishment work on the MOL Head Office Building. The building is now equipped with energy-saving systems such as motion sensors for lighting and sectional adjustment control on air conditioning, etc. and water-saving measures, including water-saving toilets and faucet sensors.

### Electricity Use in Head Office Building



### Office Paper Use in Head Office Building



# Approaches to Tackling Global Warming and to Preventing Air Pollution

Vessels burn fossil fuels and inevitably emit carbon dioxide (CO<sub>2</sub>), which is a cause of global warming, as well as nitrogen oxide (NO<sub>x</sub>), sulfur oxide (SO<sub>x</sub>), soot and other emissions, which are linked to acid rain and atmospheric pollution. The MOL Group is fully aware of the effects on air quality associated with its business activities and thus proactively works to reduce the impact on an ongoing basis.

## Approaches to Tackling Global Warming

### Approaches of the Ocean Shipping Industry

In the Kyoto Protocol, which is based on the United Nations Framework Convention on Climate Change (UNFCCC), how to regulate GHG emissions from vessels engaged in international shipping is delegated to the International Maritime Organization (IMO). And, within the IMO, the Maritime Environmental Protection Committee (MEPC) has the responsibility for investigating and forming proposals for IMO regulations in this respect.

Discussion is heating up around the world in the lead up to the Conference of Parties, the fifteenth session, UNFCCC (COP15), which will determine the framework for combating global warming to succeed the Kyoto Protocol. MOL is working to contribute to the creation of a framework that leads to substantial reductions in GHGs from international shipping.

### MOL's Approaches

The Japanese Shipowners' Association (JSA), of which MOL is a member, is tackling global warming with an industrial target of reducing average CO<sub>2</sub> emissions per unit load (ton of freight) between fiscal 2008 and fiscal 2012, by 15% compared to fiscal 1990, under the framework of the Nippon Keidanren's self-imposed environmental action plan; a total of 60 business sectors and companies are party to this framework. At the same time, we have set a target of reducing CO<sub>2</sub> emissions per unit load (ton-mile) by 10% in fiscal 2010 compared with fiscal 2005 as our midterm environmental target. In fiscal 2008, total CO<sub>2</sub> emissions from our operated oceangoing vessels were approximately 345 thousand tons more than in the previous fiscal year. CO<sub>2</sub> emissions per unit load increased about 4% compared with fiscal 2007 mainly due to a decrease in seaborne trade, while they decreased about

1% in comparison with the fiscal 2005 benchmark year. We are stepping up efforts toward achieving our midterm our environmental target.

### The MOL Group's Specific Measures

#### 1. Environmental Technologies

MOL is engaged in various research, development and innovation of technologies for ships. (Refer to Pages 6 to 8; Feature: Environmental Technologies.)

#### 2. Increasing Transportation Efficiency With Larger Ships

In December 2007, MOL took delivery of the *Brasil Maru* (Approx. 320,000 DWT), one of the world's largest iron ore carriers, which operates on a long-term contract for transporting this vital raw material for steel. The *Brasil Maru* reduces CO<sub>2</sub> emissions per ton-mile between Japan and Brazil by nearly 20% compared to conventional ships, thanks to her energy-saving design such as her very large size that gives her excellent propulsion, propellers specially designed to improve propulsion efficiency and so on. As a result of improved transportation efficiency and innovation of environment-friendly technologies in ship building, the *Brasil Maru* was selected as the "Ship of the Year 2007" by the Japan Society of Naval Architects and Ocean Engineers. MOL believes that the introduction of larger vessels and improvement of propulsion are effective measures to fulfill the social responsibility of the shipping industry to meet burgeoning international demand for ocean shipping and, at the same time, to prevent global warming.

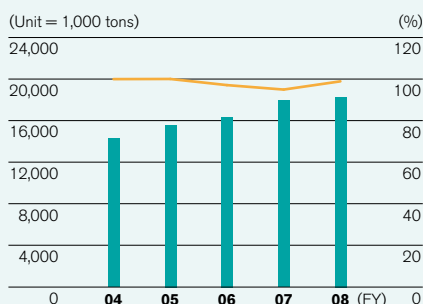
#### 3. ECO SAILING Thoroughly Adopted Within MOL

Ocean shipping is one of the most efficient modes in the entire transport industry. Still, as long as we use fossil fuels, vessels will emit CO<sub>2</sub>. Under the Group-wide common understanding that ensuring safe operation is our highest priority, we also monitor energy flow in our



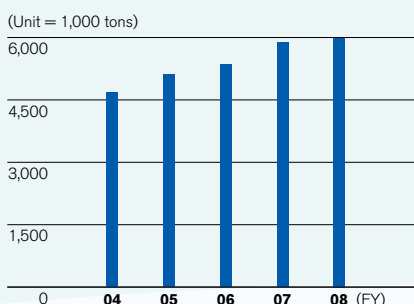
ECO SAILING pamphlet

### MOL CO<sub>2</sub> Emissions



■ Total emissions (Left scale)  
 — Emissions per unit load (ton-mile) (compared to FY2004) (Right scale)

### MOL Fuel Consumption (Marine Fuel Oil + Marine Diesel Oil Base)



### Brasil Maru Iron Ore Carrier



Note: A ton-mile is a unit of cargo transport equivalent to a ton of cargo moved one mile, calculated using the formula: amount of cargo × transport distance.

vessels and do our utmost to eliminate energy losses in our operations, resulting in energy savings and a reduced environmental impact. We call this approach ECO SAILING. We rigorously apply the principles of ECO SAILING whenever we operate vessels. Specifically, we 1) decelerate to the most economical navigation speeds, 2) take advantage of weather and sea condition forecasts, 3) select optimum routes, 4) reduce vessels' wetted surfaces, 5) optimize operation and maintenance of main engines, auxiliary equipment and the other machinery, 6) develop energy-efficient ship designs, and 7) equip vessels with Propeller Boss Cap Fins (PBCF).

**4. PBCFs Boost Vessels' Propulsion Power**

Propeller Boss Cap Fins (PBCFs), jointly developed by MOL and other parties, improve propeller efficiency. PBCFs produce a 4% to 5% improvement in fuel efficiency at the same speed, along with commensurate reductions in CO<sub>2</sub> and NOx emissions. As of July 31, 2009, PBCFs had been introduced to more than 1,700 vessels worldwide, including vessels operated and vessels planned to be built. MOL is currently developing new PBCFs with Akishima Laboratory Inc. (Mitsui Engineering & Shipbuilding Co., Ltd.) which are expected to improve fuel efficiency by another 1 to 2 percentage points and further reduce CO<sub>2</sub> emissions. An additional patent was filed in April 2009. We aim to make these new fins commercially available in 2010.



**5. Coating and Testing Heat-Shielding Paints on Large Vessels**

Between 2007 and 2008, MOL conducted tests of the benefits of heat-shielding paints of 10 leading paint manufacturers. These tests confirmed that the paints reduce energy consumption of the vessel's air-conditioning system. We intend to proactively use heat-shielding paint to lower deck temperatures on MOL Group ferries, cruise ships and car carriers as well as to control cargo temperature increases in tankers and other types of vessels, which should lead to reduced CO<sub>2</sub> emissions and lower maintenance costs for paint thanks to the long-

lasting nature of the paint. (For details, please refer to the following MOL press release) <http://www.mol.co.jp/pr-j/2008/j-pr-2797.html>

**6. Modal Shift**

Approximately 20% of Japan's CO<sub>2</sub> emissions are accounted for by the transportation sector. In order to reduce these emissions, the Japanese Ministry of Land, Infrastructure, Transport and Tourism and other concerned agencies have set up programs to establish a transportation system with a low environmental burden and have promoted the so-called "modal shift" of using rail transport, shipping and other low-impact modes of transport. The MOL Group stands ready to do its utmost to facilitate this modal shift by providing Japan's largest lineup of ferry and coastal shipping services.

In November 2008, MOL announced plans to integrate an MOL Group company, Sea-Road Express Co., Ltd., which provides integrated sea and land transportation services combining trucks and ferries, as a subsidiary of another MOL Group company, MOL Ferry Co., Ltd. The goal is to strengthen the MOL Group's integrated transportation business (Sea-Road Express Co., Ltd. became a subsidiary of MOL Ferry Co., Ltd. in April 2009).

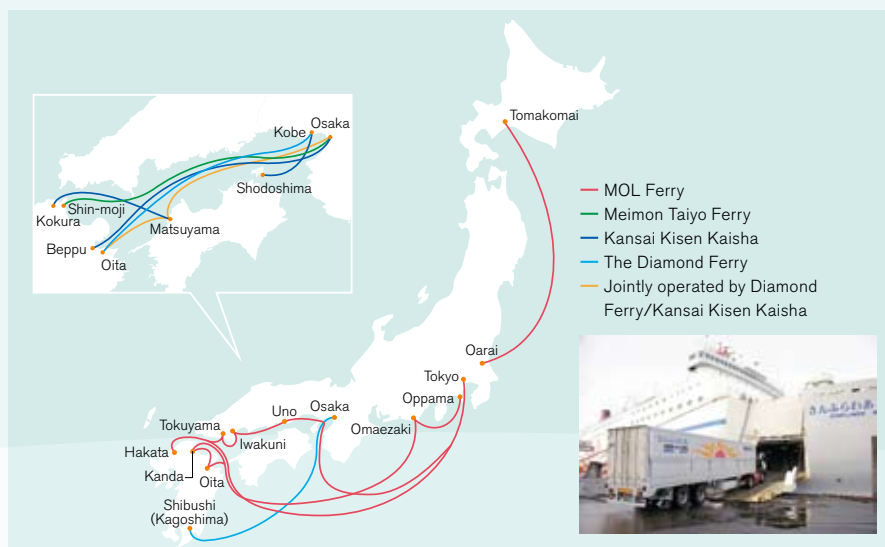
**7. Eco Terminal**

In March 2007, MOL and an MOL Group company, International Container Terminals Co., Ltd., installed one of the largest



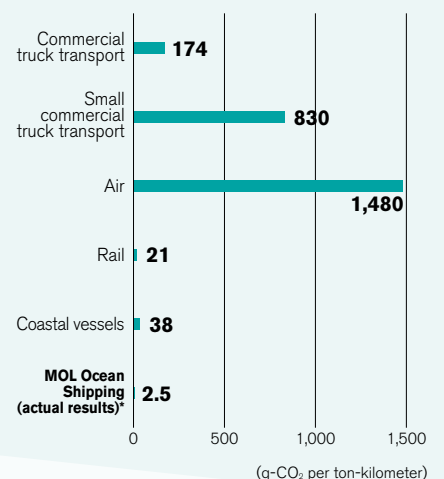
solar power generation systems in Tokyo at the Tokyo International Container Terminal. The system generates 200 kW of power. Its solar panels are located on the roofs of the gate building where the trailer trucks carrying export-import containers enter and exit the terminal as well as in the vehicle washing facility. Some 1,200 solar panels cover an area of approximately 1,600 m<sup>2</sup> and generated about 215,000 kWh of power during fiscal 2008, which covered about 30% of the power needs for the control building.

**MOL Group Ferry Service Network**



**Per-Unit-Load CO<sub>2</sub> Emissions by Means of Transport**

—Comparison of CO<sub>2</sub> emissions carrying 1-ton cargo for 1 km—



Note: Selected from information for joint sessions of relevant councils related to domestic measures to address global warming (FY2001)  
\* Emissions from all MOL vessels operated in FY2008

## Approaches to Preventing Air Pollution

NOx and SOx emissions from ships have been regulated by International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL) Annex VI stipulated by the IMO since it came into force in 2005.

At the IMO Marine Environmental Protection Committee meeting held in October 2008, amendments to the MARPOL Annex VI regulations were approved, strengthening regulation of SOx and NOx.

### NOx

NOx is generated when nitrogen (N) contained in fuel oil and air binds with oxygen (O) in the air at high temperatures when fuel burns in the engine. NOx emissions can be reduced to some degree by controlling combustion temperature in the engine. MOL is promoting the adoption of electronically controlled engines that reduce NOx, soot, and smoke by more effectively controlling the intake and exhaust valves.

We have launched 15 vessels featuring electronically controlled engines. The containership *MOL Creation*, which was delivered in June 2007, was first to adopt these engines. Another 18 vessels that are under construction or in planning will be equipped with electronically controlled engines.

### SOx

SOx is generated by burning fuel oil containing sulfur (S). In order to reduce the volume of SOx emissions, MOL has set a standard of using bunker oil with a maximum of 3.5% sulfur—well below the current 4.5% for general sea areas in the MARPOL Treaty.

### Reducing Soot/Smoke and Dust

Exhaust gases emitted by ships contain diesel emitted particulate (DEP), and particulate matter (PM) such as soot and dust. An MOL Group ship management company, MOL Ship Management Co., Ltd., teamed up with Juon Co., Ltd. to develop a generator exhaust gas purification system that uses the catalytic effects of tree oil extracted from timber harvested during forest thinning operations. The system went into use on the pure car and truck carrier (PCTC) *Euphony Ace* in November 2005 and is also used in four other ships. The exhaust gas purification system is also environment-friendly from the standpoint of forest protection by effectively using forest resources.

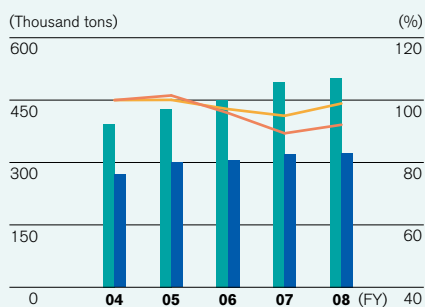
### Using On-Shore Power Supplies

In October 2008, we carried out a joint trial with CleanAir Logix, Inc. at our container terminal at the Port of Los Angeles involving the supply of power from an on-shore generator powered by LNG to one of our containerships, *MOL Enterprise*. Reducing the use of onboard power generators while berthed can dramatically cut emissions of NOx, SOx, PM and other pollutants. We will look at utilizing shore electricity supplies going forward based on the results of this trial.



The *MOL Enterprise* receives power from an on-shore generator.

### MOL NOx and SOx Emissions



(NOx)  
 ■ Total emissions (Left scale)  
 — Emissions per unit load (ton-mile) (Compared to FY2004) (Right scale)

(SOx)  
 ■ Total emissions (Left scale)  
 — Emissions per unit load (ton-mile) (Compared to FY2004) (Right scale)

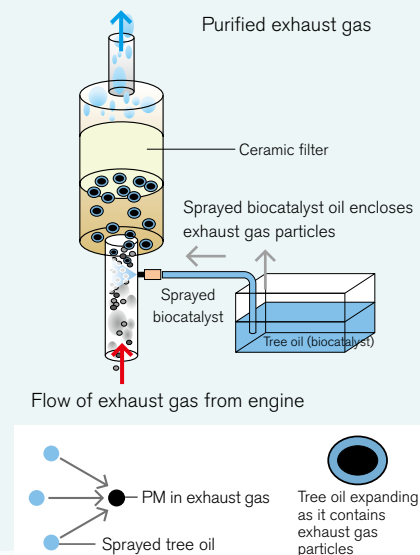
### Electronically Controlled Engine-Equipped Ship, *MOL Creation*



### Average Sulfur Content (%) in Fuels Used by MOL

	Marine Diesel Oil	Marine Fuel Oil
FY2004	0.62%	2.78%
FY2005	0.56%	2.82%
FY2006	0.49%	2.75%
FY2007	0.44%	2.62%
FY2008	0.40%	2.59%

### Exhaust Gas Purification System



# Approaches to Marine Environmental Protection

**By rigorously ensuring safe operation, MOL is working to prevent marine pollution caused by marine accidents. At the same time, MOL is taking into consideration biodiversity and actively pushing ahead with measures to protect the seas and oceans, which are not only our place of business, but also the shared heritage of everyone on Earth.**

## Double-Hull Tankers

We have been taking a proactive approach to adopting double-hull vessels in our tanker fleet in order to prevent spills of crude oil, petroleum products, and chemicals caused by a grounding or collision of vessels. As of March 31, 2009, double-hull vessels accounted for 95% of our tanker fleet (all crude oil tankers are already double-hulled).

## Double-Hull Fuel Tanks

All vessels burn fuel oils to proceed. Therefore, in the same way as with tankers, we have pushed the adoption of double-hull fuel tanks in order to reduce the risk of bunker oil leaking into the ocean in the event of an accident. A proposal to require double-hull fuel tanks on ships built after August 1, 2007 was adopted at the 54th session of the International Maritime Organization (IMO) Marine Environment Protection Committee held in March 2006.

## Ballast Water

Ballast water is discharged when cargo is loaded. It can have an impact on local ecosystems by introducing foreign marine organisms from another location. This potential cross-border transportation of foreign marine organisms in ballast water has been highlighted as an international issue since the late 1980s. As a result, a treaty on ballast water management was adopted by the IMO in February 2004. After 2017, all vessels will be required to treat ballast water to reduce the content of marine organisms to a specified level rendering it harmless.

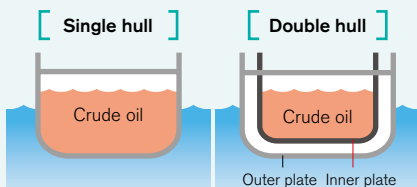
We have developed a ballast water purification system and conducted onboard demonstrations in cooperation with manufacturers, researchers, and other concerned parties and continue to work to render ballast water harmless as early as possible. In October 2006, we installed and tested a prototype system on our container-ship *MOL Express*, confirming that it meets the concentration criteria required by the treaty. In November 2008, we initiated an onboard field trial on container-ships with a view to obtaining type approval from the IMO.

## Ship Bottom Paints

Fuel efficiency declines when marine organisms attach to the bottom of a vessel and increase the hull's resistance to traveling through the water. The traditional approach to this problem was to coat ship bottoms with paint containing tributyl tin (TBT), which has a high antifouling property. However, after the harmful effect of TBT on ecosystems was widely confirmed, the IMO in 2001 adopted a treaty banning the use of TBT paints. MOL began switching to tin-free (TF) paint earlier than this and as a result we completed the switch on all our managed vessels in fiscal 2005.

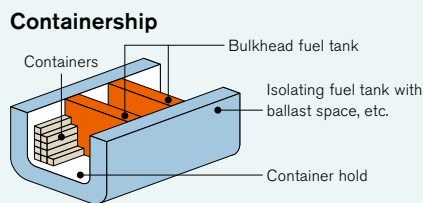
We are also conducting practical tests using vessels of a new ecosystem-friendly silicon resin paint that is expected to offer long-term antifouling performance and doesn't leach into water.

### Double-hull Tanker

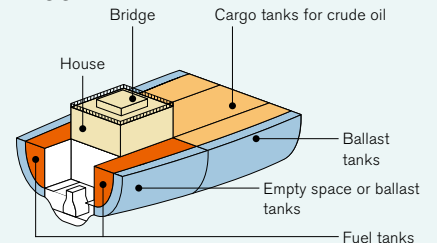


Double-hull structure

### Double-hull Fuel Tanks

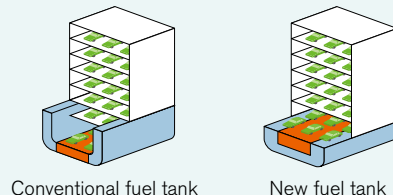


### VLCC



### Car carrier

■ Ballast tanks ■ Fuel tanks





### Antifouling Technology

Between June 2007 and May 2008, MOL teamed up with NM Corporation Watercoat enterprise and an MOL Group company, M.O. Engineering Co., Ltd., to conduct trials of a hydrophilic antifouling technology (product name: "Water Coat") on the glass windows of six ferries' passenger cabins, confirming that the coating acts to prevent dirt. Use of this product reduces frequency of cleaning and coating and makes it unnecessary to use cleaning substances, thereby reducing environmental impact.

### Proper Processing of Waste Oil

Fuel oil for vessels contains many impurities. Water and other contaminants are extracted by pre-treatment before the fuel is used in main engines, power generators, and boilers. Waste oil, containing water and impurities, from pre-treatment, is heated in a specific tank to remove water, and then incinerated in conformity with environmental regulations. We endeavor to optimize the waste oil that has a high fuel content in particular as fuel for boilers. MOL will continue to reduce incineration of waste oil through proper disposal and effective use.

### Processing Bilge Water

In a vessel's engine room, bilge water (waste water containing oil) is generated by leakage from seawater pipes and equipment, and during maintenance work. We have introduced a bilge source separation system that categorizes bilge water in three stages according to oil density at the source, and collects and disposes of it properly.

### Onboard Waste Disposal

On a vessel, which is also a home for seafarers, the same type of garbage as a household, plus various waste unique to ships, such as loading and packing materials, is generated. On our operated vessels, based on the MARPOL73/78 Treaty, we draw up onboard waste management plans requiring separation, collection, storage and disposal of onboard waste. Waste management officers supervise this process, and work to build thorough awareness of the plan among officers and crew members. Food waste and other biodegradable trash are ground into small particles and disposed of in specified areas of the open sea, and plastic waste is disposed of appropriately on land.

### Caring for the Environment When Scrapping Vessels

Aging vessels must often be scrapped in the interest of safe operation and protection of the marine environment. However, measures for workers' safety and the environment have been insufficient when scrapping ships in some Asian countries. In May 2009, the IMO adopted The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009, with the aim of preventing these sorts of problems that occur when ships are recycled. This treaty prohibits and restricts the fitting and use of treaty-specified hazardous materials, and requires vessels to prepare, record and update inventory lists showing the quantity and location of hazardous materials on ships over a ship's lifetime. These lists must be handed over to the recycling facility. MOL is working to create such inventory lists ahead of the enforcement of this treaty. At the same time, as in the past, when selling a ship on the assumption that it will be scrapped, we check that the scrapping yard has acquired ISO14001 certification (or the environmental management equivalent), and uses scrapping methods and procedures that are sufficiently safe for the environment and personnel.

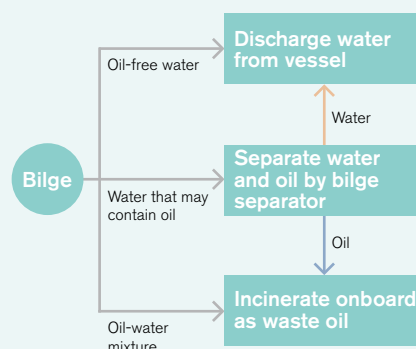
#### Experimental Ballast Water Treatment System



A Containership Coated With Silicon Resin Paint (MOL Pride)



#### Proper Processing of Bilge Water



#### Waste Oil Incinerator



Onboard Trash Separation and Collection Point



# Achievement and Assessment of FY2008 Environmental Targets and Midterm Environmental Targets

Fiscal 2009 is the final year of the MOL Group's current midterm environmental plan, which we initiated in fiscal 2007.

We are actively working to achieve the goals of this plan based on the results through fiscal 2008.

Theme	FY2008 Environmental Targets
<b>Ensuring safe operation</b>	<ul style="list-style-type: none"> <li>Prevent marine incidents resulting in ocean pollution by oil spills.</li> </ul>
<b>Marine and global environmental protection</b>	<ul style="list-style-type: none"> <li>Reduce CO<sub>2</sub> and NO<sub>x</sub> emissions per unit load from vessels by 8% compared to FY2005.</li> <li>Reduce SO<sub>x</sub> emissions per unit load from vessels by 15% compared to FY2005.</li> <li>Comply with current regulations and prepare for tighter regulations and expanding regional scope in the future.</li> <li>Cooperate on developing treatment technologies that meet ballast water discharge standards, and survey and study the application of existing developed products.</li> </ul>
<b>Procure environment-friendly products, materials, and vessels</b>	<ul style="list-style-type: none"> <li>Replace all very large crude oil carriers (VLCCs) with double hulls (D/H) by end of FY2008.</li> <li>Study adoption of electronically controlled engines in the new shipbuilding plan.</li> <li>Promote use of PBCFs on MOL-operated vessels.</li> <li>Study use of non-hazardous ship bottom antifouling paint, paint for exposed parts, and so on.</li> <li>Study further the adoption of heat insulation and heat-shielding paints.</li> <li>Promote and establish "ECO SAILING" campaign. (Refer to Page 19)</li> <li>Study adoption of renewable energy technologies (biomass fuel, solar power generation, etc.) in on-land facilities and vessels.</li> </ul>
<b>Development and introduction of technologies for environmental improvement</b>	<ul style="list-style-type: none"> <li>Proactively research, develop and adopt emission gas purification systems, etc.</li> <li>Reconfirm and clarify vision for functions of the MOL Technology Research Center, mainly regarding research and development of technologies for safe operation and environmental protection, using the opportunity of the center's relocation.</li> <li>Develop a specific plan to prepare inventory lists for our fleet considering vessels' Life Cycle Assessment (LCA).</li> </ul>
<b>Conserve energy and materials, recycling and waste reduction</b>	<ul style="list-style-type: none"> <li>Promote separation and recycling of garbage generated in the Head Office.</li> <li>Reduce electricity use per employee in the Head Office by 2% compared to FY2006.</li> <li>Reduce office paper use per employee in the Head Office by 1% compared to FY2007.</li> </ul>
<b>Proactive disclosure of environment-related information</b>	<ul style="list-style-type: none"> <li>Publish "Environmental and Social Report 2008" (April 2007–March 2008) (communicating Group-wide efforts, mainly on enhancement of safe operation systems and initiatives on control of GHG emissions).</li> </ul>
<b>Participation in and support for environmental protection activities</b>	<ul style="list-style-type: none"> <li>Continue existing activities (Kids ISO, beach cleanup, Tanzania Pole Pole Club, and Ecocap Movement (collection of bottle caps to fund vaccines for children in the developing world) and study new activities.</li> </ul>
<b>Enhance Group environmental management</b>	<ul style="list-style-type: none"> <li>Deepen the structure for environmental management and environmental protection activities.</li> <li>Expand environmental education in Group companies.</li> <li>Develop ways to promote modal shift.</li> <li>Support environment-related business, and provide information.</li> </ul>

## Approaches of the MOL Group

### Reducing CO<sub>2</sub> Emissions with a Dual-engine, Single-shaft System

Diamond Ferry Co., Ltd. <http://www.diamond-ferry.co.jp/>

The company launched the *Sunflower Gold* in November 2007 followed by the *Sunflower Pearl* in January 2008. Both ships feature a dual-engine, single-shaft propulsion system in which one propeller is rotated by two engines. Conventional long-distance ferries are equipped with a dual-engine, dual-shaft system. The dual-engine, single-shaft system adopted by Diamond Ferry allows a slimmer stern shape, dramatically improving propulsion efficiency, and reducing fuel consumption and CO<sub>2</sub> emissions.



Sunflower Gold

### Enhancing Environment Management through ECO ACTION 21 (EA21)

Mitsui O.S.K. Techno-Trade, Ltd. (MOTECH) <http://www.motech.co.jp/>

MOTECH sells a broad range of environment-related products, including PBCFs (Refer to Page 20); IZ energy-saving lighting; Adgreencoat and Zeffle heat-shielding paints that control temperature rises in cabins; "SANWA Aerator," which ensures more effective wastewater treatment; and "BY FAR Z," an environment-friendly detergent to disperse oil. MOTECH places environmental protection as its top priority in its approach to office activities and bunkering operations in Japan and overseas, as well as in the sale of environment-related products. To promote its environmental management more systematically and efficiently, the company established an internal environmental management system, and in July 2007 its head office received certification under ECO ACTION 21 (EA21), the environmental standards formulated by Japan's Ministry of the Environment, reflecting its ongoing environmental activities.

## Efforts to Reduce Environmental Impact on Cruise Ships



Mitsui O.S.K. Passenger Line, Ltd. (MOPAS) <http://www.mopas.co.jp/>

The cruise ship *Nippon Maru*, which MOPAS operates, has acquired ISO14001 certification for its cruise services. In addition to reduction of the environmental burden associated with ship operation, a major challenge for the *Nippon Maru* is to reduce the environmental impact peculiar to cruise ships. Guided by the motto "MOL, kind to the sea and Earth," MOPAS practices environmental protection that engages the cooperation of passengers. Such measures include asking passengers to elect whether to receive replacement towels in their cabins.

### FY2008 Achievements

- No serious incident occurred
- Reduced CO<sub>2</sub> and NO<sub>x</sub> per unit load by approx. 1% from FY2005.
- Reduced SO<sub>x</sub> per unit load by approx. 9% from FY2005.
- Participated in IMO deliberations through the Japan Shipowners' Association regarding the application of an Emission Control Area to the 200 nautical mile zone around the coast of U.S. and Canada.
- Conducted onboard field tests from November 2008 on a Company-operated containership.
- Completed selling single-hull VLCCs, meaning all MOL-operated VLCCs are now double-hulled.
- Installed electronically controlled engines on 15 vessels by the end of FY2008; decided to employ electronically controlled engines in 18 vessels that will be delivered between FY2009 and FY2013.
- Installed PBCFs on a total of 26 new vessels and MOL-operated vessels.
- Used hydrophilic antifouling technology (called "Water Coat") on the windows in the passenger area of 6 ferries and confirmed the antifouling efficacy. Continued to research and test new functional paints such as ship bottom antifouling paint.
- Tested heat-shielding paint on ferries and confirmed reduction in energy used for air conditioning.
- Decelerated to the most economical navigation speed more often, contributing to a reduction in CO<sub>2</sub> per unit load compared with FY2007.
- Tried the use of bio-diesel for onshore loading equipment; continued to look at installing solar power generation systems on car carriers.
- Began developing DPF (diesel particulate filter for cleaning exhaust gas) systems for main engines; currently testing on ferries.
- Proceeded with ensuring safe operation and achieving CO<sub>2</sub>, NO<sub>x</sub>, and SO<sub>x</sub> reduction targets from a technical perspective. Set the goal of developing fuel reduction technology by 2010 at the MOL Technology Research Center.
- Trained specialists at MOL affiliates and began putting in place a structure for creating inventory lists.
- Raised the garbage recycling rate by 5.0 percentage points from FY2006.
- Reduced electricity use per employee in the Head Office by 6.6% from FY2006.
- Reduced office paper use per employee in the Head Office by 10.1% from FY2007.
- Distributed the Environmental and Social Report 2008 (6,500 copies in Japanese and 4,500 copies in English) inside and outside the Group.
- Continued to conduct existing activities. No new activities were initiated.
- Presently reviewing the environmental management structure
- Extended the Company's in-house monthly newsletter regarding environmental issues *Gekkan Kankyo* to MOL Group companies.
- Decided to strengthen integrated transportation services, including integration of an MOL Group company, Sea-Road Express Co., Ltd., which provides integrated transportation services, as a subsidiary of another MOL Group company, MOL Ferry Co., Ltd.
- Introduced the environment-related businesses of Kusakabe Maritime Engineering Co., Ltd., Mitsui O.S.K. Techno-Trade, Ltd. and Sanwa Marine Ltd. in the Environmental and Social Report 2008

### Self-Assessment

Achieved

Not achieved

Not achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Achieved

Not achieved

Not achieved

Achieved

Achieved

Achieved

### FY2007-2009 Midterm Environmental Targets

- Prevent marine incidents resulting in pollution by oil spills.
- Reduce vessel CO<sub>2</sub> and NO<sub>x</sub> emissions per unit load by 10% in FY2010, compared to FY2005.
- Reduce vessel SO<sub>x</sub> emissions by 17% per unit load in FY2010, compared to FY2005.
- Comply with low-sulfur fuel regulation.
- Cooperate on developing treatment technologies that meet discharge standards for ballast water.
- Replace all VLCCs with double hull vessels by the end of FY2008.
- Step up adoption of electronically controlled engines for vessels.
- Promote installation of PBCFs on MOL-operated vessels.
- Research and develop environment-friendly paints for vessels.
- Continue study of fuel additives.
- Introduce renewable energy.
- Aggressively research, develop and adopt emission gas purification systems, emulsion fuel and so on.
- Establish organizational structure for research and development (positioning dedicated personnel (division), utilizing the MOL Technology Research Center, tie-ups with external institutions, etc.).
- Research and study measures for vessels' LCA.
- Promote thorough separation and recycling of garbage generated in the Head Office.
- Reduce electricity use per employee by 3% in the Head Office compared to FY2006.
- Reduce office paper use per employee in the Head Office by 3% compared to FY2007.
- Proactively disclose environmental information through the Environment and Social Report and website.
- Continue existing activities (Kids ISO, beach cleanup, Tanzania Pole Pole Club, and Ecocap Movement) and study new activities.
- Promote environmental protection activities in Group companies in Japan, overseas subsidiaries and affiliates.
- Address environmental business at Group companies.

## Promoting Beverage Can Recycling Business with Eye on a Future Recyclable Society

Kusakabe Maritime Engineering Co., Ltd. <http://www.kusakabe-eng.co.jp/>

Kusakabe Maritime Engineering established the "Tri-R-Kobe" can recycling plant in May 2004. At the plant, empty beverage cans collected by recycling programs are compressed and fed into a dry quenching furnace that emits greatly reduced levels of dioxin to produce high-quality steel pellets and aluminum pellets. Because this furnace is powered mainly with natural gas, CO<sub>2</sub> emissions are approximately 60% lower than conventional plants that run on heavy fuel oil, and combustible gas collected from the furnace is re-circulated to ensure more complete combustion. Thus the plant has a minimal environmental impact, helping to create a resource recycling society.



Pressed cans



Commercially recycled aluminum pellets (right) and steel pellets (left)

## Environmentally Friendly Building –Nakanoshima Daibiru Building

Daibiru Corporation <http://www.daibiru.co.jp/>

In March 2009, the Nakanoshima Daibiru Building was completed in Nakanoshima, the birthplace of Daibiru Corporation. Built with high environmental performance in mind, this building boasts an "ecological façade," which blocks the sun's rays, while retaining views and light; an "automated light adjustment ecosystem" that automatically controls the brightness at desks; and an efficient air conditioning system that takes fresh air in from the outside. These environmental performance aspects have won the building high marks; it has earned the highest CASBEE Osaka\* rank of S.



\* Comprehensive Assessment System for Building Environmental Efficiency for Osaka City

35 floors above ground  
Total floor area:  
79,467.08 m<sup>2</sup>

# Caring for Land-based Employees

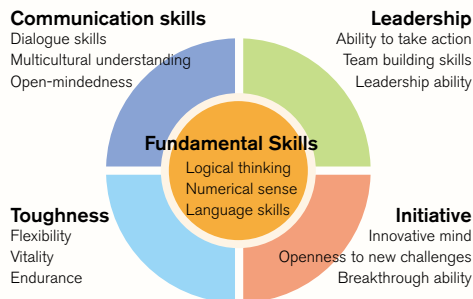
The MOL Group is enhancing recruitment activities, training programs and various other systems with the aims of securing and developing employees who can create new value and ensuring the growth of both the MOL Group and individual employees.

## Recruitment and Human Resources Development

Every year, MOL conducts fair recruitment activities with a clear image of the types of people the Company is looking for.

MOL regards an employee's first 10 years in the Company as a cultivation period. Training falls into two broad categories: on-the-job training (OJT) and off-the-job training (OFF-JT). The OJT system develops employees by exposing them to jobs in various workplaces. Meanwhile, OFF-JT includes position-specific training, onboard training to gain experience in the frontlines of our business and cross-cultural skills training. We also run Career Development Workshops in support of individual career development, MOL Group Management Schools to develop future leaders of the MOL Group, and MOL Group Executive Seminars targeted at executives of Group companies.

### Required Skills



## HR System and Evaluation System

We have adopted a system for personnel management and remuneration that encourages employees to take the initiative in their work and more appropriately reflects responsibility and results. Aiming to ensure a fair and highly transparent evaluation, appraisal is conducted annually and managers also conduct interviews with their subordinates every quarter.

## Consideration for Health Care and Work Environments

Besides complying with laws and regulations, we have introduced the following systems to enhance employee health and their working environments so that employees work energetically in good health both physically and mentally.

### Health Management

- Implement yearly medical check-ups
- Provide daily medical services in the Company clinic
- Implement mental health consultation service and online mental health self-evaluation
- Formulate countermeasures against new influenza strains
- Implement medical check-ups and recovery leave for employees spending an extended period of time at worksites, and establish no overtime days
- Implement medical exams before, during and after overseas postings for employees working overseas

### Training before the first assignment onboard (the training vessel *Fukae Maru*)



Onboard training for land-based employees (Containership *MOL Excellence*)



### MOL Kakio Institute (Training facility)



### Career Development Workshops

These workshops are designed to maintain good and sound relationships between employees and the Company, by providing employees with a chance to think about and recognize this relationship as well as to make self-assessment. This program targets all employees aged 30 and over.

### Company clinic in MOL's Head Office



### Care for Working Environments

- Implement training regarding sexual harassment and human rights.
- Accept various consultations in the Counseling and Aid Center in the Human Resources Division, Head Office.
- Implement Casual Days (every Friday, casual everyday between June and September)
- Implement disaster safety confirmation system

### Systems that Support Diverse Human Resources and Work Styles

MOL operates various systems with the aim of utilizing diverse human resources and allowing employees to work in various ways.

- Child-care leave: In addition to morning sickness and maternity leave, MOL also has a child-care leave system catering for the period before children are accepted at day care. About 70 employees have taken child-care leave since the system was introduced in 1992.
- "Refresh" leave: Employees are allocated extra holidays after 15 years and 25 years of continuous service.
- Nursing care leave: Employees may take up to 2 years' nursing care leave.
- Reemployment system for mandatory retirees: MOL has introduced an active senior program in response to a law in Japan enacted to encourage stable employment of workers who have reached the mandatory retirement age.

### Status of Career Women at MOL

(As of March 31, 2009)

Number of women employees	Highest position of women employees	System to transfer to career employment
Career employees: 69 Clerical workers: 136	Group Leader (the position following general managers of divisions, offices, and branches)	Clerical workers can transfer to career employment if they satisfy certain conditions and pass an exam

### Meeting the Needs of Expatriate Staff and Other Locally Hired Employees

The Company appoints a person to support various aspects of the lives of expatriate employees and their families, including medical care, children's education, and safety in the nation where they work. And we have hired about 3,000 national staff at local subsidiaries all over the world, contributing to the growth of local economies.



Mitsui O.S.K. Bulk Shipping (Europe) Ltd. Brussels Office



Mitsui O.S.K. Bulk Shipping (Asia Oceania) Pte. Ltd. Singapore Office

### Relationships with Labor Unions

Land-based employees belong to the Mitsui O.S.K. Lines Labor Union, and seafarers are members of the All Japan Seamen's Union. Both unions enjoy good and sound relations with Company management.

### Language Training



### VOICES from the Frontline

#### Striving Hard Every Day With the Understanding and Cooperation of the Company and My Employer

I lead a busy life balancing both my work and childcare commitments. However, I am able to continue working with the understanding and cooperation of my employer and colleagues and spend my days productively. Soon after I returned to work I faced a number of difficult issues. For instance, one day I was called at work by the nursery school because my eldest daughter had taken ill all of a sudden. I also found that the finishing time for the center that looked after my eldest son at elementary school didn't fit in well with the time I finish work. However, I discussed my situation with my superior on each occasion and received advice and directions, including how to get through my work and adjust my schedule. Fortunately, the Company has suggested ways for employees to work efficiently and I am also aware myself of the efficient use of time. Every day, I find ways to make sure I am pulling my weight.



**Akino Koike**  
Assistant Manager  
Procurement Group  
Liner Division

## Caring for Seafarers

**A unique characteristic of the MOL Group is that we have seagoing employees among our workforce. They play a key role in ensuring safe operation and managing ship operations, the very basis of our business.**

### MOL's Seafarers

MOL's seafarers crew approximately 300 vessels. The large majority of our seafarers are foreign nationals from more than 20 countries; Japanese seafarers account for only around 3% of our seafarers. MOL pays due consideration to this multinational workforce in terms of the working environment onboard vessels and on shore as well as remuneration and benefits. At the same time, we run high-level development and training programs to produce outstanding seafarers who are highly motivated and possess excellent skills and knowledge.

### Basic Policies for Recruitment

MOL hires around 20 Japanese seafarers (seagoing employees) in a typical year, and since fiscal 2005 has employed female seafarers. Overseas, meanwhile, we have established bases for recruiting and managing seafarers around the world. We have also set up a scholarship system at overseas maritime academies to support aspiring seafarers. In countries lacking the necessary qualification systems within academy curriculums, we have introduced an internship system so that students can gain the necessary experience for earning qualifications. Promising young seafarers from various countries who have received such support will be employed as personnel who have the potential to be key MOL members in the future.

### Roles of MOL Seagoing Employees

MOL's seafarers engage not only in ship operation aboard Company-operated vessels but also in land-based vessel and seafarer management positions. In the case of Japanese seafarers, for example, for the first 10 or so years of their careers, they concentrate on serving aboard

ships and accumulate competence as future captains and chief engineers. Based on that experience, they are posted to land-based positions for a certain period of time where they utilize their know-how, or they follow their own career paths by serving aboard various types of vessels. Such land-based positions are open broadly to non-Japanese seafarers, too, and seafarers of many different nationalities support the Company's safe operations in various locations that are not their home countries. Thus, MOL seafarers are required to serve as all-round players to lead the whole MOL Group.

### Occupational Safety and Health

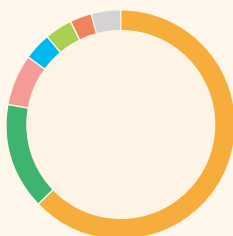
An Onboard Management Committee and Onboard Safety and Health Committee are set up on each ship. They strive to improve the working environment and safety and hygiene through onboard duty planning, safety checks of onboard equipment/machinery and working environments, occupational safety and health management, and education for onboard operations. Qualified onboard health officers take responsibility for monitoring seafarers' physical and mental health. In order to keep our seafarers fresh, MOL ensures that they receive adequate leave on land and maintain their health through regular detailed checkups.

### Occurrence of Workplace Accidents

	(No. of cases/million hours)	
	2007	2008
Lost Time Injuries (LTIF)	0.72	0.62
Total Recordable Cases (TRCF)	2.36	2.50

LTIF: Frequency of injuries and illnesses (including death) that prevent seafarers from returning to normal work  
 TRCF: Total of LTIF, incidence of injuries that hinder normal operation, and incidence of injuries and illnesses requiring treatment  
 Scope of data: Vessels managed by major MOL Group ship management companies

### MOL Seafarers by Nationality



- Philippines 63%
- India 15%
- Europe 7%
- Russia 4%
- Indonesia 4%
- Japan 3%
- Others 4%

(As of March 31, 2009)

### VOICES from the Frontline

#### Being Aboard a Vessel

Right now I'm involved in a training voyage aboard an LNG carrier. Believe me, there is nothing quite as exhilarating as piloting a 290-meter-long vessel safely past another ship using my own judgment, while staring from the bridge at a tank filled with 145,000 m<sup>3</sup> of LNG. It's a moment when I viscerally understand my role in being there. However, after experiencing some port entries, departures and several watch duties on deck, it is also true that, almost daily, I'm frustrated with myself over the huge barrier that remains between what I've learned and what I can actually do on demand.

While frequently receiving kind instruction, and, when needed, stern guidance from my senior colleagues, I strive to tear down this barrier bit by bit by internalizing as many ocean navigation skills as I possibly can. When the time to leave this vessel finally arrives, I am determined to be able to say proudly that, in spirit, skill, and physical strength, I am a professional LNG vessel navigational officer.



**Kentaro Matsuo**  
 Junior Third Officer  
 LNG Carrier *ENERGY PROGRESS*

## Caring for Families at Home

It is vital to care for seafarers and their families, who must spend considerable time apart. MOL has established consulting offices for seafarers and their families in the Human Resources Division at Head Office as well as in locations overseas, and offers services that are closely tailored to particular countries and regions. For instance, we hold gatherings for seafarers and their families around the world that are attended by Head Office corporate officers. These family gatherings include briefings to explain the current status of the Company, question-and-answer sessions, consulting, and social meetings.

## Crew Duties

**Deck Department:** Responsible for vessel navigation, safe cargo transport, loading/discharging operations, and hull maintenance. On vessels which are always underway, three teams of an officer and an able seaman take deck watch (navigation and lookout) around the clock with six four-hour shifts to ensure safe operation.

**Engine Department:** In charge of maintenance and operation of vessel equipment and machinery including the engine. They are responsible for keeping the vessel in the best operational condition. The day in the engine room starts with a work plan meeting early in the morning, and continues in principle from 9:00 a.m. to 5:00 p.m. But a rotating engineer is on call in case of engine trouble during the night, when it is in M zero (unattended) operation.

**General Affairs Department:** Takes responsibility for preparing meals for the seafarers and managing foodstuffs, cleaning, and health and sanitation. Their working hours are from early morning to night because they must prepare breakfast, lunch, and dinner. They take their meals and breaks during slow times.

## Education and Training for Seafarers

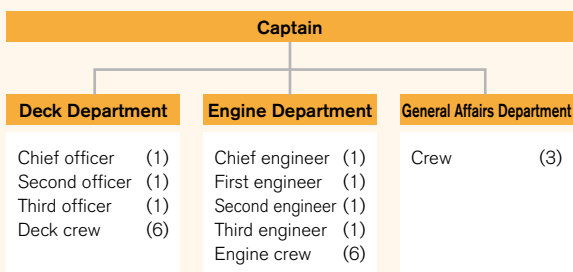
Needless to say, seafarers' skills, experiences, and awareness are vital to maintaining vessels' safe operation. MOL has crew training centers in eight locations in six countries where seafarers undertake education

and training programs before taking up a position on a vessel. These centers offer a variety of training based on MOL's unique and uniform curriculum. According to the type of vessel to which a seafarer is assigned, each training center provides a variety of training, extending from classroom lectures on theory to actual practice on our simulators and real engines. This training enables seafarers to operate the latest onboard equipment and machinery and comply with new laws and regulations. Naturally, we take a strict approach to quality management, in which safe operation is at the heart. We also seek to provide more extensive education and training for a growing number of seafarers in our crew training centers all over the world, in step with our growing fleet and expanding business. MOL sets its own skill requirements for every seafarer as a technical expert at the front line according to his/her rank in addition to the standards set by international treaties, and the Company has established its own education system to enable all MOL seafarers to fulfill these requirements. We also operate our own training vessel, the *Spirit of MOL*, which is an important training facility for new seafarer education and for ensuring safe operation. New mariners, regardless of their nationality, who represent the future of the Company, learn specialist maritime knowledge and skills through intensive safety and basic training, and by living together with other interns of various nationalities, they develop pride and a sense of belonging as members of the MOL Group.



LNG carrier *Wakaba Maru*

### Organization of Vessel (Crew of 23 seafarers)



Deck Department: Voyage planning



Engine Department: Removing a piston from the main engine

### MOL's crew training center in the Philippines



### Training onboard the training vessel *Spirit of MOL*



# Social Contribution Activities



The MOL Group contributes to society through the transportation of various goods that support industry and better lives for people all over the world. We also engage in social contribution activities based on the following basic policies.

### Basic Policies

- Transport of aid supplies
- Marine and global environmental protection ■ Maritime education
- International cooperation ■ Monetary contributions

## Transport of Aid Supplies

### Transport of Aid to Disaster-Stricken Iloilo City, Philippines

The MOL training vessel *Spirit of MOL* carried around 37 tons of relief supplies, including drinking water tanks, blankets and buckets, to areas devastated by Typhoon Frank.

### Transport of Mobile Library Buses

MOL car carriers transported 21 mobile library buses from Japan (Yokohama) to South Africa.



### Transport of Donated Clothing

An MOL containership transported a 20-foot container load of donated clothing to Brazil (Santos) from Japan (Yokohama).

## Marine and Global Environmental Protection

### Beach Cleanup



We have conducted cleanup campaigns since 2000. In 2008, we did such campaigns at Odaiba Seaside Park in Tokyo and Yuigahama Beach in Kamakura City, Kanagawa Prefecture, Japan.

### Volunteer Leader Training for Oil Spill Response

Since 2004, we have encouraged employee participation in this lecture co-sponsored by the Umimori Volunteer Information Center and The Nippon Foundation, with cooperation from the Maritime Disaster Prevention Center. By promoting employee participation in the

sessions aimed at developing volunteer leaders who have a basic knowledge of oil spill response, MOL has strengthened its commitment to safe operation.

### Impression After Taking “Volunteer Leader Training for Oil Spill Response”

During the two-day training, I learned how damage occurs after an oil spill and gained a sense of self-renewal as a person involved in the ocean shipping industry, through the practical exam and experimental test. And, I keenly felt my social responsibility as a shipping company employee.

Preventing any incident from occurring on our operated vessels, of course, is the most important thing. However, we must know characteristics of oil spills and how to take countermeasures in preparation for an incident just in case. I firmly believe this will ensure appropriate decisions and action even in a crisis.



**Toshiya Iwagami**  
 Manager  
 LNG Carrier  
 Group (B)  
 LNG Carrier Division

### Cooperation in Marine Research Projects

Surface water temperature observation research using expendable bathythermographs (XBTs) aims to clarify the interaction between the ocean and atmosphere, the role of the ocean in climate change, and the ocean's overall circulation. This research is conducted at sea aboard our VLCC (Very Large Crude oil Carrier) *Kaminesan*.

## International Cooperation

- Supported seafarer education and training in the Philippines and other countries.
- Helped support the United Nations World Food Program (WFP).
- Donated to Museu Historico da Imigracao Japonesa no Brasil archive project in Sao Paulo, Brazil.



## Monetary Contributions

- Support to the disaster area of the Great Sichuan earthquake in China. Made monetary donations through the Japan Red Cross, China Red Cross, and other organizations.



## Maritime Education

### 4<sup>th</sup> MOL Kids Cruise

Continuing on from last fiscal year, we hosted the MOL Kids Cruise again on the cruise ship *Nippon Maru*. The goal of this program is to provide an opportunity for children, who represent the future of Japan as a seafaring nation, to build their interest in ships and the sea. In total, 153 pairs of pupils from the fourth to sixth grade at elementary school and their guardians were invited and MOL and MOL Group employee volunteers played a leading role in the event's planning and operation. The onboard program included a range of ingenious, educational activities for children to be able to learn and enjoy, such as a rope work class, a trivia quiz about ships and the sea, and a magic show. MOL will continue to communicate the world of ocean shipping and the importance of marine and environmental protection through this kind of program.



### Terminal Tours

MOL also hosts tours of container terminals, which are the gateways for trade from/to Japan, for junior and senior high school students as well as adults. A total of 215 tours were hosted at the Tokyo and Kobe container terminals operated by Group companies (International Container Terminal Co., Ltd., and Shosen Koun Co., Ltd.) during fiscal 2008.

## Group Companies' Social Contribution Activities

### MOL Ship Management Co., Ltd.

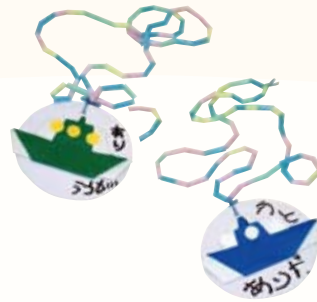
- Exchange of letters and visits between the iron ore carrier *Shinzan Maru* and children in Kamiyama-cho (which shares the same Japanese characters as the vessel), Tokushima Prefecture.



- Capesize bulkier *Niitaka Maru* cooperated with marine weather measurements.

### Kansai Kisen Kaisha

- Invited 60 kindergarten children to visit its ships (Osaka, Beppu).
- Invited around 60 elementary school children in total to visit its ships (Osaka).



### Tokyo Marine Co., Ltd.

- Made a donation to areas in Myanmar affected by Cyclone Nargis.

### International Container Terminal Co., Ltd.

- Watered the ground at the entrance to the Tokyo Ohi Container Terminal and surrounding gate as a way to tackle the heat island phenomenon.

### MOL (America) Inc.



- Since August 2006, this company has transported more than 5,000 wheelchairs for disabled people to various countries from Shanghai.

### MOL South Africa (Pty) Ltd.

- Donated textbooks, school bags, uniforms and other items to a children's home in Durban, South Africa.



### Mitsui O.S.K. Lines (Vietnam) Ltd.

- Donated operation fees to families struggling to live with children suffering from heart disease.



# Communication

The MOL Group disseminates information about its business activities and CSR efforts to help shareholders gain a better understanding, and promotes two-way communication, listening closely to their opinions.

## Communication with Shareholders and Investors

MOL aims to build better and sounder relationships with shareholders and other investors. In this regard, MOL fulfills its accountability for information disclosure based on three key principles of being—“timely,” “accurate,” and “fair”—to obtain the understanding of shareholders and investors. At the same time, MOL works hard to execute highly transparent management with the president himself taking the initiative and responsibility for investor relations (IR). MOL uses various IR tools such as its annual report and Investor Guidebook to convey details of its business environment and management strategy from a medium- to long-term perspective in a straightforward manner. Furthermore, we hold various meetings, including the Annual General Meeting of Shareholders, avoiding the dates most Japanese companies hold their annual meetings; quarterly results presentations; small meetings; and exhibitions and/or briefing sessions for individual investors. IR tools and earnings-related information are prepared in both Japanese and English and posted on our website as part of our commitment to global fair disclosure. We continue to work every day to improve fair disclosure for all investors and increase opportunities to provide them with information.

## External Recognition

- IR Prime Business Award: MOL's IR activities were once again recognized with the 2008 IR Prime Business Award. In 2005, MOL was honored with the IR Prime Business Award Grand Prix which made the Company ineligible for the Prime Business Award for two years, according to the award regulations. (Sponsored by the Japan Investor Relations Association)



Award logo

- Nikkei Award for Annual Reports: MOL's annual report has won a Nikkei Annual Report Award eight times. After picking up an excellence award for our fiscal 2000 report, we won the fiscal 2004 best award, followed by excellence awards in fiscal 2005 and fiscal 2006. We also won prizes in fiscal 2002, 2003, 2007 and 2008. (Sponsored by Nihon Keizai Shimbun, Inc.)

- MOL continues to be selected as a component of the Dow Jones Sustainability Indexes (DJSI), FTSE4Good Global Index, and other socially responsible investment indexes.

## External Communication

MOL uses a variety of information distribution methods to simply communicate the information required by all stakeholders.

- The MOL website (Japanese and English, <http://www.mol.co.jp>)
- Corporate Profile (Japanese and English)
- Annual Report (Published every year in Japanese and English)
- Environmental and Social Report (Published every year in Japanese and English)
- Quarterly *Ethica*
- Ships that Support Our Lives* pamphlet
- Kaisha no Arukikata* (MOL – A Guide to the Company) (edited/published by Diamond Inc.)

## Communication within the MOL Group

MOL holds periodic liaison meetings and councils at various levels, aiming to share its vision, information, and consciousness.

- Group Management Meetings for MOL executives and presidents of major Group companies
- Executive Officers' Liaison Meetings, position-specific liaison meetings such as General Managers' Meetings
- Can-Do Meetings and Fresh Can-Do Meetings where the president meets with division managers and young employees. These meetings are held to stimulate thinking and discussion and to gain new perspectives on issues.
- "Better Understanding in Financial Results and Outlook Meetings" mainly for managers, assistant managers and young employees, which are held in parallel with official announcements to the public.

We also work to share information and facilitate the exchange of opinions internally and Group-wide through in-house magazines (Japanese and English), portal sites (MOL Group Information Portal), online bulletin boards ("CSR" and "The Environment," etc.), and online magazines such as the monthly *The Environment* and *Gentle Breeze*, etc.

## MOL's Communication Tools



## Third-Party Opinion



**Toshihiko Matsuo**  
Doctor of Engineering  
School of Marine Science and Technology,  
Tokai University

In 1992, the Earth Summit was held in Rio de Janeiro, Brazil, to mark the anniversary of the 1972 United Nations Conference on the Human Environment in Stockholm, Sweden. At the time in Japan, I saw many books about environmental problems in bookstores, but after Japan's economic bubble burst in the early 1990s, these sorts of books disappeared from the shelves as if the tide had gone out on the subject. There was thus a bubble-like increase in the public's awareness of environmental issues back then, but environmental problems aren't a temporary thing, and must be addressed regardless of the economic circumstances.

Logistics that mainly depends on trucks like in Japan is heavily responsible for global warming. It is for this reason that a modal shift from trucks to ships and trains is called for today. However, while CO<sub>2</sub> emissions per unit load of shipping are smaller because ships transport large volumes of cargo over long distances in one voyage, the absolute emission volume is not small. In fact, CO<sub>2</sub> emissions by large vessels in the international ocean shipping industry amounted to 870 million tons in 2007. That is equivalent to about 60% of Japan's total emissions and almost all of Germany's emissions. Shipping companies must therefore work hard in this area.

As a university researcher studying the modal shift, I was extremely interested in the MOL Group's Environmental and Social Report 2009. I read with considerable interest about the company's efforts to address environmental problems. I was particularly interested in ways the company is reducing CO<sub>2</sub> emissions from ships, that is, its initiatives to improve energy efficiency, as well as information about MOL Group company ferries and RORO ships.

As a reader, I am relieved and encouraged to hear that MOL is actively developing and employing technologies to improve energy efficiency as well as safety and reliability. New initiatives such as the use of solar power and wind power, as well as ongoing hard work to improve ship design, showed me that MOL is working in the right spirit as a shipping company.

Additionally, I'm delighted to see that an energy-saving diesel-powered ferry with a twin engine and single shaft belonging to an MOL Group company won an outstanding performance award under the MOL Group Environmental Award scheme. Ships benefit from the modal shift because they have a comparatively lower environmental impact than trucks. But as I said earlier, efforts to minimize environmental impact are still needed by shipping companies. I would therefore like to compliment the MOL Group for its environmental efforts.

These days in Japan, ferry operators have unfortunately been placed in an extremely disadvantageous position by the lowering of expressway toll charges. However, this situation doesn't detract from the fact that ships are an extremely effective means of addressing the global warming impact of logistics. Therefore, the MOL Group and Japanese shipping companies are needed to support ferries and RORO ships. Much effort will also be required to earn the effective support of the government and related agencies. Rather than see ferries and RORO ships disappear, I hope that their presence will increase so as to address environmental problems effectively.

## MOL's Response



**Koichi Muto**  
Senior Managing Executive Officer  
(Deputy Chairman of CSR and Environment  
Committee)

We appreciate Dr. Matsuo's observation that environmental problems, and global warming in particular, are not fleeting issues and his opinion that despite the relatively smaller CO<sub>2</sub> emissions per unit load in marine shipping than other transport modes, the industry as well as other industries must do more to reduce these emissions. We also appreciate his encouraging evaluation of and expectations for our activities as a researcher of the modal shift.

Ocean-going shipping companies like MOL have a social mission to meet increasing demand for transportation services in support of industry and people's lives worldwide. But sustainable growth won't be possible without efforts to reduce environmental impact. Domestic shipping and ferry services have already been promoting the modal shift, but I think efforts to make their role more widely known to people should be reinforced.

By integrating and refining our existing technologies, innovating new technologies, building larger ships and efficiently operating vessels, we are determined to do our best to reduce our environmental impact per unit load even more than now.



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