

# Environmental and Social Report 2006

The seventh edition April 2005 – March 2006





## **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

### Corporate Profile (As of March 31, 2006)

Name:	Mitsui O.S.K. Lines, Ltd.
Foundation:	December 28, 1942 (Inauguration: 1884)
President:	Akimitsu Ashida
Paid-in capital:	¥64,915 million
Number of shares issued:	1,205,410,445
Number of shareholders:	131,050
Shares listed in:	Tokyo, Osaka, Nagoya, Fukuoka, Sapporo
Business:	Multimodal transport mainly by ocean-going shipping
Consolidated revenue:	¥1,366,725 million (for FY2005 ending March 31, 2006)
Number of employees:	881 (600 on land, 281 at sea) excluding employees temporarily assigned to other companies
Fleet	570 vessels; 43,334 thousand DWT
Number of Group companies:	325 (consolidated)
Number of consolidated subsidiaries:	64 in Japan, 211 overseas
Number of equity method non-consolidated subsidiaries:	2 overseas
Number of equity method affiliates:	20 in Japan, 28 overseas
Number of employees in Group companies:	8,351 (consolidated companies)
Group fleet:	705 vessels, 45,447 thousand DWT
Head Office:	2-1-1 Toranomon, Minato-ku, Tokyo 105-8688
Branches in Japan:	Sapporo, Yokohama, Nagoya, Osaka, Kobe, Kyushu
Offices:	Tomakomai, Hiroshima, Moscow Representative Office, Vladivostok Office
URL:	http://www.mol.co.jp

### Overseas Network (29 nations)





MOL Head Office Building

#### **Editorial Policies**

- The MOL Group has reported on its groupwide 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 the MOL Group's philosophy and actions on corporate social responsibility (CSR) including safe operation and environmental protection, which are the foundation of our business activities, to various stakeholders.
- This report covers four general areas "management," "safe operation," "the environment," and "society." Targets and achievements in each category are shown on corresponding pages, so readers can see our approaches and progress at a glance.
- For further reference
- Environmental Report Guidelines 2003 and Environmental Accounting Guidelines 2002 issued by the Japanese Ministry of Environment:
- Sustainability Reporting Guidelines 2002 issued by Global Reporting Initiative (GRI) • Issued in October 2005 and September 2006, and scheduled for issue in September 2007

#### Period: FY2005 (April 1, 2005 to March 31, 2006)

Exception: The organization chart in this report is as of July 1, 2006. In addition, some activities begun prior to FY2005 and activities during FY2006 (April 1, 2006 to March 31, 2007) are reported with notes.

#### Organizations

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

Mitsui O.S.K. Lines, Ltd. and 325 consolidated companies (275 consolidated subsidiaries, two equity method non-consoli-dated subsidiaries, and 48 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. Environmental activities are divided into the following three categories. Reported activities are based

on No.3 below, but data is available only for items covered in Nos.1 & 2. 1. Activities conducted at MOL (including all operated vessels).

Since a very small number of employees work in offices outside the Head Office, the environmental burden of these offices

is extremely low, so data covers only the activities aboard MOL-operated vessels and in the Head Office. 2. Activities at MOL and 64 consolidated subsidiaries in Japan

3. In addition to No.2 above, activities conducted at equity method applied affiliates - Kansai Kisen Kaisha, Meimon Taiyo Ferry Co., Ltd., and Nippon Charter Cruise, Ltd., and four overseas companies (the United States, South America, Europe, and Asia)

Please see notes regarding scope of application for data other than above. Emissions per unit load (ton-mile) in the transition of MOL CO2 emissions (page 7), transition of MOL NOx emissions (page 30), and transition of MOL SOx emissions (page 30), are calculated based on FY2001 as the benchmark year, since Navix Line merged into MOL in 1999. The social performance is based on MOL's non-consolidated data

### Consolidated Subsidiaries in Japan (64 companies)

#### 1. Containership business (4)

Operate container terminals and offer liner shipping agency services. Utoc Corporation, Mitsui O.S.K. Lines (Japan) Ltd., International Container Terminal Co., Ltd., Shosen Koun Co., Ltd.

#### 2. Bulkship business (4)

Own or operate car carriers, dry bulk carriers, tankers, and LNG carriers, or offer tramp agency services. Chugoku Shipping Agencies, Ltd., Mitsui O.S.K. Kinkai Ltd., Tokyo Marine Co., Ltd., M.O.LNG Transport Co., Ltd.

#### 3. Logistics business (7)

#### Transport and store cargo, and offer total logistics solutions.

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

#### 4. Ferry and domestic transport business (12)

Offer passenger and cargo transport by ferry, and transport domestic cargo Searox Kitaichi Co., Ltd., Sea-Road Express Corp., Kyushu Kyuko Ferry Co., Ltd., MOL Ferry Co., Ltd., The Diamond Ferry Co., Ltd., Diamond Line K.K., MOL Naiko, Ltd., Blue Highway Express K.K., Blue Highway Express Kyushu Co., Ltd., Blue Highway Service K.K., Blue Highway Line Nishinihon Corporation, Miyako Shoji Co., Ltd.

#### 5. Associated business (26)

#### Real estate, cruise ship operation, tugboat services, trading, construction, temporary staffing, and marine consulting.

Esca Corporation, Osaka All Service Corporation, Kansai Building Maintenance Co., Ltd., Santo Tatemono Service, Mitsui O.S.K. Kosan Co., Ltd., Daibiru Corporation, Dojima Estate Corporation, Hu-Tec Service Co., Ltd., Hokuso Kohatsu K.K., Mitsui O.S.K. Passenger Line, Ltd., Ikuta & Marine Co., Ltd., Ube Port Service Co., Ltd, Kitanihon Tug-Boat Co., Ltd., Green Kaiji Kaisha, Ltd., Green Shipping, Ltd., Kobe Towing Co., Ltd., Nihon Tug-Boat Co., Ltd., Mitsui O.S.K. Techno-Trade, Ltd., M.O. Marine Consulting, Ltd., M.O. Engineering Co., Ltd., Kusakabe Maritime Engineering Co., Ltd., M.O. Marine Construction Co., Ltd., Mitsui O.S.K. Career Support, Ltd., Japan Hydrographic Chart & Publications Co., Ltd., Sanwa Marine Ltd., Kitanihon Soko Koun Co., Ltd.

#### 6. Others (11)

#### Mainly serve as MOL Group cost centers, for ship management excluding LNG carriers, Group-related finance, information, and accounting.

MOL Adjustment, Ltd., M.O. Cableship Ltd., M.O. Ship Tech Inc., M.O. Ship Management Co., Ltd., MOL Accounting Co., Ltd., Orange P.R. Ltd., MOL Tankship Management Ltd., International Marine Transport Co., Ltd., MOL Information System Ltd., Nihonkai Kisen Kaisha, Mitsui Kinkai Kisen Co., Ltd.

## Environmental and Social Report 2006

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# Creating an Excellent and Resilient MOL Group that Contributes to Sustainable Worldwide Growth

MOL Group efforts on corporate social responsibility (CSR) are aimed at converting the corporate principles into tangible form. We are striving to create an excellent and resilient global corporate group based on the following principles:

- Contributing to global economic growth and development
- Maximizing corporate value by promoting an open and visible management style that is guided by the highest ethical and social standards
- Promoting and protecting our environment by maintaining strict, safe operation and navigation standards

### Contributing to global economic growth and development

CSR consists of various elements, but I believe its foundation is to faithfully contribute to society through our intrinsic business activities – transporting the cargo entrusted to us by our customers in a reliable, safe, speedy manner, with minimum environmental impact. The MOL Group supports sustainable global economic growth through its world-leading transport services.

# Maximizing corporate value by promoting an open and visible management style that is guided by the highest ethical and social standards

Daily business activities are based on acute awareness and strict compliance with social norms and corporate ethics. Companies, as social institutions, must be operated and managed in a highly transparent manner. The MOL Group always attempts to study and establish the optimum corporate governance framework, while paying close attention to regulatory compliance and change in the social and business environment.

The company joined the United Nations Global Compact in March 2005. The Global Compact resulted from UN Secretary-General Kofi Annan's challenge to business leaders in 1999 – join an international initiative that unites corporations with UN agencies, labor, and society to support 10 principles covering human rights, labor, the environment, and anti-corruption measures. These 10 principles encompass common global values and rules of conduct, and closely match the MOL Group's CSR goals and corporate philosophy. We are working to implement the 10 principles through the activities of the Global Compact Japan network.



President Akimitsu Ashida

a. a. hida

# Promoting and protecting our environment by maintaining strict, safe operation and navigation standards

Safe operation and reliable cargo transport are the foundation of MOL Group business activities. We take great pride in our maritime technologies, developed over decades of experience, which enable us to offer top-quality services around the world. However, a single oil spill or major accident could have a tremendous impact on the marine environment and society. MOL Group directors and employees are keenly aware of this risk and spare no effort to ensure safety in every phase of our operations.

Vessels require extremely high levels of safety and reliability because they must operate under extreme weather conditions and in heavy seas. The MOL Group is aware of these special conditions and sets its unique environmental standards different from those for land-based facilities. We take special care to ensure that our vessels are environmentally friendly and economical throughout their service lives. Considering the critical issues of global warming and air pollution, we have developed and introduced an energy-saving propeller system, wind/water resistance reducing vessel designs, and emission control systems. What's more, the MOL Group operates Japan's largest ferry and domestic coastal service network, positioning us to effectively promote a modal shift in transport and logistics.

### People are fundamental — "Can Do Spirit" is vital to increasing corporate value

One of the most important assets of the MOL Group is human resources. I believe the key to increasing corporate value is fostering creativity and efficiency among Group directors and employees. We all must have a "can-do" spirit, which will create a "can-do" company. In other words, we will be a company that's eager for a challenge, a company that follows through, and a company that never loses its enthusiasm for continued growth and improvement.

### Working together with our stakeholders

MOL Group businesses are supported by various stakeholders such as customers, shareholders, business partners, and local communities. This Environmental and Social Report is produced as a tool to enhance communication with these stakeholders. We hope this report will give you a better understanding of the MOL Group's perspectives and approaches to CSR, and welcome your feedback.

Aiming to become an excellent and resilient global corporate group that contributes to sustainable world growth, all MOL Group directors and employees are united to continue to do our very best, and we look forward to your continued support.



VLCC Iwatesan

### Helping to Prevent Global Warming Through Our Core Business

### **Global Warming and Its Causes**

Global warming and related effects such as glacial retreat, the melting of permanently-frozen ground, rising sea levels, impact on ecosystems, and abnormal climate changes that threaten the existence of life on earth, are caused by greenhouse gases (GHG) including carbon dioxide (CO<sub>2</sub>). The Kyoto Protocol\* went into effect in February 2005 as an international effort to prevent global warming. It sets forth legally binding GHG reduction targets for industrialized nations (Annex I nations).

### The MOL Group's Stance

Global warming is the most important and urgent environmental issue now. We set ourselves out to reduce GHG generated through own business activities by various countermeasures, and meet the needs for prevention of global warming required from the customer and society through ocean service which has an excellent transport efficiency.

## Efforts in Ocean Shipping

Ocean shipping activities cover the entire world, and the industry's approach to environmental protection needs to adopt the same standards for all vessels and marine areas because of today's

#### \* Kvoto Protocol

The Kyoto Protocol is the protocol, requiring reduced emissions of six GHGs including CO<sub>2</sub>. It was adopted at the 3rd Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP3), and is called the Kyoto Protocol because the conference was held in Kyoto, Japan, in December 1997. The protocol sets forth legally binding reduction targets for industrialized nations (Annex I nations), aiming to reduce GHG emissions by at least 5% between 2008 and 2012 (the first commitment period) by all participating industrialized nations. Under the protocol, Japan is responsible for reducing emissions by 6%.

FY2010 Group Target	Reduce $CO_2$ emissions by 10% per unit load from MOL-operated vessels from FY2005 levels		
Mid-term plan (FY2004–2006)	Continue countermeasures to prevent global warming		
2005 targets	Achievements	Evaluation	2006 targets
$\boldsymbol{\cdot}$ Continue to reduce CO2 emission per unit load from vessels	Nearly maintained 2004 level (only 0.1% increase)		Continue to reduce CO <sub>2</sub> emission per unit load
Work to reduce global warming and comply with the Kyoto     Protocol	Promoted modal shift as MOL Group	0	

integrated global market. Therefore, the Kyoto Protocol gives the International Maritime Organization (IMO) authority to limit and reduce GHG emissions from merchant vessels. In response, the IMO began developing a calculation method for GHG emissions from vessels plying international waters, and assigned specific tasks to the Maritime Environmental Protection Committee (MEPC). At the 51st MEPC conference in March 2003, however, developing countries insisted that only vessels plying international routes of Annex I nations (advanced countries) as defined in the Kyoto Protocol, should be responsible for GHG reduction. As a result, technical and political studies are under way separately. There are currently no international regulations concerning GHG emissions from ocean vessels. However, the Japanese Shipowner's Association, to which MOL belongs, has been working hard to achieve an approximately 10% reduction in CO<sub>2</sub> emissions per unit load by 2010, compared to 1990 levels. This is part of a voluntary effort by the Japanese Federation of Economic Organizations (Keidanren), which represents 35 major industries. Evaluation by per unit load instead of total volume target aims both at social responsibility – meeting global transport demand, which increases every year – as well as more efficient, environmental-friendly transport and operation.

### Efforts on Board MOL-Operated Vessels

MOL works to prevent global warming, by setting a goal of continuously reducing vessel  $CO_2$  emission per unit load. Overall emissions from our vessels during FY2005 totaled 15,586 thousand tons, an increase from FY2004 due to the fleet expansion taking place under our mid-term management plan MOL STEP, backed by rising global trade. However, thanks to the following countermeasures,  $CO_2$  emission per unit load for FY2005 maintained at nearly the same level as FY2004, rising only by 0.1%.

### Our Major Countermeasures to CO<sub>2</sub> Emissions

- Continual study and implementation of measures for maintaining and improving the vessel performance (fuel efficiency, speed, etc.), based on such analysis of ship operation data (i.e. Maintain and control quality level of engines and auxiliary equipment, ship bottom cleaning, and sandblasting while in dry-dock)
- Reduce navigation speed and select optimum routes depending on the situation, and introduce support systems
- Improve transport efficiency by introducing large and energy-saving designed vessels
- Develop and introduce various energy-saving technologies (i.e. Propeller Boss Cap Fins (PBCF) system, wind/water resistance reducing designed vessels, use of combustion improver, etc.) (Please refer to pages 32 and 33 for details.)

#### \* International Maritime Organization (IMO)

A specialized United Nations agency, that promotes cooperation among national governments on technologies related to ocean shipping, shipbuilding, maritime safety, prevention of marine pollution by vessels, and efficient ship operation.





Emission per unit load (ton-mile) (compared to FY2001)

Note: Ton-mile: A unit of cargo transport equivalent to a ton of cargo moved one mile. Calculated using the formula: amount of cargo x transport distance

## Transition of MOL Fuel consumption

### (A oil + C oil base)





#### \* Modal Shift

A generic term for a measure to shift from on-land cargo transport by truck to means such as ocean shipping and railroads, which can transport mass volumes and reduce environmental impact. The modal shift is expected to limit CO2 emissions, increase energy efficiency, and help reduce traffic congestion and accidents. Many companies are working to reduce their environmental impacts as part of various business activities. Looking at logistics, the Modal Shift, which would move a larger share of goods by ocean shipping and railroads, is considered an effective means of reducing environmental burdens, and has gained wide acceptance.

#### \* The Kyoto Mechanisms

Economic incentives that reduce emissions-reduction cost by using market mechanisms to average its international costs. There are three mechanisms – Joint Implementation (JI): transaction of emission reductions related to projects jointly implemented by industrialized nations; Clean Development Mechanism (CDM): Emission reductions by joint projects between industrialized nations and developing countries; and Emissions Trading (ET): Portions of the industrialized nation's emission allowances can be bought and sold on an international trading market.





Note: Abstract of concerned council joint session materials (FY2001), related to Japan's domestic measures to prevent global warming

\* Calculated from all MOL-operated vessels during FY2005

# rading market. Japan made comprehensive plans related to global warming, such as the global warming prevention (1998 and

to promote global warming prevention. What's more, the revised Energy Conservation Law, which took effect on April 1, 2006, now requires all cargo owner companies, including those in the transport sector, to take energyconservation measures. The previous law focused on energy conservation, mainly at factories and

Promoting the Modal Shift\* with Japan's Largest Ferry and

Japan is responsible for reducing GHG emissions by 6% between 2008 and 2012 (the first

commitment period). However, emissions during 2004 totalled approximately 1,355 million tons of

CO<sub>2</sub>, an increase of 8.0% over the target of the benchmark year 1990. The Kyoto Protocol introduced

the Kyoto Mechanisms\*, which include economic rationales for industrialized nations to ensure

2002). And in April 2005, the Kyoto Protocol target achievement plan was adopted at a Cabinet meeting to respond to issue of the Kyoto Protocol and evaluation and review of the 2002 outline

smoother progress toward their targets. It is by no means easy for Japan to achieve the targets.

**Coastal Transport Network** 

Japan's Efforts on Kyoto Protocol

conservation measures. The previous law focused on energy conservation, mainly at factories and buildings. Transport companies (specific transporters) and cargo owners (specific cargo owners), which have more than a certain scale of business/transport capacity, are required to prepare midand long-term energy-saving plans and regularly report energy usage status.

#### Specific Transporters (However, limited to domestic transport. International transport is not included in this target)

Industry sector	Standards	Cargo	Passengers	
Shipping	Total fleet scale	20,000 gross tonnage or more	20,000 gross tonnage or more	
Automobile No. of units		200 or more	Bus	200 or more
Automobile	NO. OF UTILS	200 or more	Taxi	350 or more
Railroad	No. of trains	300 or more	300 or more	
Air transportation	Total max. takeoff weight	9,000 tons or more		

#### Specific Cargo Owners

Targeting companies in all industry sectors whose annual consignment transport volume, along with their own business activities (including the volume by self transport) is 30 million tons and kilometers or more.

#### MOL as a Leader in the Modal Shift

About 20% of CO<sub>2</sub> emission in Japan comes from the transportation sector. Automobiles account for 90% of that figure, with about 50% from private cars. With the target in the Kyoto Protocol target achievement plan set forth in April 2005 – limit CO<sub>2</sub> emissions from the transportation sector by about 250 million tons by 2010 (an increase of 15.1% from 1990) – the Land, Infrastructure and Transportation Ministry and other concerned government ministries set forth concrete measures to address automobile traffic and establish an environment-friendly traffic system.

Use of environment-friendly means of transport such as railroads and vessels (called the modal shift) is the main pillar in the latter measure.

Prevention of global warming requires not only the efforts of all cargo owners and logistics companies, but also comprehensive approaches that cross industry lines in order to improve the logistics system. The "Green Logistics Partnership Conference," formed in December 2004 through the cooperation of concerned government ministries and parties, has more than 2,400 members, including MOL Group companies and other Japanese cargo owner and logistics companies. The conference works to promote and expand independent efforts to reduce CO<sub>2</sub> emissions in the logistics sector through cooperation between cargo owners and logistics companies.

The MOL Group takes a proactive approach to meeting modal shift needs of customers by offering Japan's largest network of ferry and coastal shipping services. In May 2005, MOL Ferry Co., Ltd. received the "Sixth Logistics Environmental Grand Prize," sponsored by the Japan Federation of Freight Industries, for the Tokyo-Hakata liner route jointly operated with Nippon Express. The award honors the companies' achievement of a contradictory target – improving cargo space capacity and shortening transit time with larger and advanced vessels, while improving fuel efficiency.



Sunflower Sapporo (MOL Ferry Co., Ltd.)



Cedros (MOL Naiko, Ltd.)



Star Diamond (The Diamond Ferry Co., Ltd.)



Ferry Kyoto 2 (Meimon Taiyo Ferry Co., Ltd.)



Sunflower Ivory (Kansai Kisen Kaisha)



Sunflower Satsuma (Blue Highway Line Nishinihon)



Musashi Maru (Kyushu Kyuko Ferry Co., Ltd.)

MOL Group Ferry Service Network



## The MOL Group Builds Better Lives All over the World

Japan, surrounded by the sea, exports and imports about 945 million tons\* of cargo annually (2004 figures). And 99.7% (by weight) is transported by ships. The MOL Group, with ocean shipping as its core, is involved in transport of various commodities that contribute to industrial growth and improved lifestyles for people all over the world. As a key player in an industry indispensable for sustainable worldwide economic growth, the MOL Group expands business while caring for the environment and society.

\* Source: Land, Infrastructure and Transportation Ministry "2005 Maritime Report"



Containership MOL Efficiency



Car carriers Pure car and truck carrier (PCTC) Courageous Ace

MOL

## Product Transport Business

#### Containerships

MOL has launched large, high-speed containerships that set the pace not only in efficiency but also environmental friendliness. These ships are deployed on major routes all over the world, calling at ports in the Americas, Europe, and Asia. We lead the world containership business with our top-class services. **Car Carriers** 

MOL, the first Japanese shipping company to launch a pure car carrier (PCC), continues to pioneer the field with environment-friendly features. For example, our newest carriers are designed to minimize wind/water resistance. These ships reinforce MOL's position in the world car carrier fleet not only from the viewpoint of transporting automobiles, but also from the aspect of environmental protection.

### Logistics

The MOL Group has warehouses and distribution centers all over the world, all connected by a sophisticated logistics network. Warehousing and multimodal transport services link sea, land, and air transport, and provide total logistics solutions that support more efficient flow of products and materials.

### Ocean shipping is a growing industry

#### Transition of Worldwide Trade Volume



Logistics Container trailer





### Natural Resource and Energy Transport Business

### **Dry Bulkers**

Dry bulkers transport massive quantities of bulk materials such as iron ore, coal, and grain. The MOL Group, as the world's largest dry bulker operator, works constantly to ensure the stable transport of these critical commodities.

### Tankers

MOL Group tanker fleet consists of very large crude carriers (VLCCs) displacing over 200,000 tons, product tankers that carry refined petrochemical products, chemical tankers for liquefied chemical products, and liquefied petroleum gas (LPG) carriers. This is one of the largest tanker fleets in the world.

#### LNG Carriers

Liquefied natural gas (LNG) has drawn attention in recent years as a clean, abundant source of energy. The MOL Group holds the leading share in this sector, and offers the most advanced technologies and expertise.



Dry bulker Kohyohsan



Tankers VLCC *Iwatesan* 

### Structure of the Ocean Shipping Industry

In the ocean shipping business, vessels can call at any port in the world, based on the principles of free trade, so our competitors are companies all over the world. In other words, shipping companies from all nations can freely enter any shipping market under the same conditions.

The mission of the ocean shipping industry is to provide transport service, and naturally vessels are the backbone of the industry. Vessels are ordered from shipbuilding companies. Financing vessels requires huge amounts of capital, not only from within the company but from financial institutions. Operating vessels requires fuel oil, which we procure from oil suppliers. In some cases, we entrust operations and management to ship management companies that directly manage the seafarers and vessels. When calling at ports, we work closely with harbor and port authorities for allocation of pilots and tug boats. And of course, we work with customers in virtually every industry through our logistics infrastructure and transport segments encompassing energy, resources, and finished products.





LNG carriers LNG carrier Senshu Maru

MOL Group aims to become an excellent global company that can contribute to the sustainable growth of the world economy.



Breakdown of Employees by Region (Consolidated)



Other regions

### Group Mid-Term Management Plan

MOL Group has pursued business expansion in booming markets around the world, in addition to proactively investing in fields where we anticipate growth, such as resource and energy transport, in the three-year management plan Mitsui O.S.K. Lines' Strategy towards Excellent and Powerful Group (MOL STEP) for fiscal year 2004 to 2006, and pushes these strategies under the main theme of creating a "world's largest, unique ocean transportation company group with full range of services." Since profits for FY2004 (first year of the plan) far exceeded the initial target, the company reviewed the target after FY2005 and 2006 (second and third year of the plan) as the MOL STEP Review. The world economy remained steady in 2005, and ocean trade showed solid growth. However, skyrocketing bunker prices and a correction in the containership market compressed profits.

The Group continues to proactively invest in the ocean shipping business, mainly resource and energy transport, to strengthen our base, while enhancing offshore trade with India and Russia, where we anticipate future growth in addition to China and the Europe/U.S. markets.

But we cannot achieve our targets only by expanding our fleet. Personnel on shore and at sea, and the organizational structure, are just as important in fleet operation. In addition, about 95% of seafarers on MOL Group-operated vessels are from nations other than Japan. In order to steadily



Long-term vision: To make the MOL Group an excellent and resilient organization that leads the world shipping industry

Main theme: "Growth" — Develop the MOL Group into the world's largest, highest-quality, unique ocean transport company group with full range of services



recruit and train excellent seafarers, the company pioneers new sources for mariners and develops its own education and training contents. Furthermore, MOL invites highly qualified executives to serve as outside directors and seeks out excellent mid-career personnel as staff for the Head Office who have abundant experience. The company believes in proactive diversification of human resources to develop an organization with higher quality directors and employees, as part of a strategy to ensure continued growth in the future.

MOL Group has set safe operation, marine and global environmental protection, as well as financial targets, as its most important tasks in business activities. The company works to ensure safe operation not only by safety management on all MOL Gorup-operated vessels, but also through an onshore support structure and full-scale development of education and training for Japanese and international seafarers. The company introduced the Group Environmental Target System in major domestic Group companies and overseas subsidiaries to continuously reduce our environmental burden by implementing environmental education at Group companies and stepping up environmental measures.

### **Basic Policies on Profit Sharing**

MOL recognizes that increasing corporate value by proactive investment in business and direct return of profits to shareholders through dividend are important management measures. At present, based on the mid-term management plan that aims at further growth, the company works hard to increase corporate value while improving business structure and proactively investing, mainly in vessels. (MOL made Daibiru Corporation a subsidiary by a tender offer during fiscal year 2005. This aimed to stabilize consolidated profits and integrate the MOL real estate business.)

In light of these considerations, MOL will continue to base dividends on a payout ratio of 20%, and will address the need to increase the ratio under our mid- and long-term management policies.

#### Total Assets/Shareholders' Equity



Total assets Shareholders' equity

### Fleet Expansion Plan







## Approaches to CSR

The MOL Group conducts business activities incorporating care for social justice, ethics, and the environment, and aims for sustainable growth of enterprises, communities, and the entire world, through management that takes into account the needs of various stakeholders.

### MOL Group Philosophy on CSR

The MOL Group views CSR as a way to ensure that businesses, communities, and the world enjoy sustainable, synergistic growth through corporate management that considers not only economics but also social justice, ethics, and the environment. The MOL Group believes this is a fundamental element of business.

#### MOL Group Stakeholders



Ocean shipping, which is the MOL Group's core business, offers international cargo transport using vessels, the most efficient mean of transport. Global ocean trade volume has increased drastically in recent years, in step with the world's rising population and economic globalization. We take a proactive approach to introducing new transport services such as expanding our offshore business, getting to market guickly to meet changes in Japan's industrial structure, more complex international logistics and diversified customer needs

The MOL Group continues to meet the needs of various stakeholders around the world through its business activities.

### Background of MOL Group CSR Efforts

### 1. Put corporate principles into tangible form

In the MOL Group Corporate Principles, the Group expresses the need to contribute to society as a multimodal transport group. As a basis to put our corporate principles into practice, the MOL Group regards compliance - complying with social norms and ensuring the highest standards of corporate ethics - as guite natural, and conducts highly transparent corporate governance. In addition, the MOL Group considers safe operation as the foundation of its activities, and spares no effort to protect the environment.

#### 2. Maintain good relationships with stakeholders

Ocean shipping, which is the core of the MOL Group, operates on a global scale, so our stakeholders vary. We value our relationships with each stakeholder and continue to build better partnerships.

### 3. Ensure sustainable growth by reinforcing governance and risk management

The MOL Group maintains management transparency and is acutely aware of the risks of any action that may cause a loss of credibility among stakeholders, such as compliance violations or serious accidents. In particular, we recognize that our business places a substantial burden on the environment, and do our utmost to minimize that impact.

### 4. Increase corporate value as a result of CSR efforts

We will never lose sight of the trust society places in the MOL Group, and strive to increase our corporate value through CSR efforts based on that trust.

### Participation in the UN Global Compact

In March 2005, MOL became the first Japanese shipping company to join the United Nation Global Compact, which supports 10 principles covering worldwide social issues. The company already set forth

#### Relationships with stakeholders

#### Shareholders

Increase corporate value through strengthening profitability, timely and appropriate disclosure through proactive IR activities

#### Customers

Increase satisfaction by providing high-guality, reliable services

#### Business partners

Build good relationships and share business opportunities through

#### Communities

Enhance understanding of the MOL Group, build good relationships, ensure safe operation and environment protection, contribute to society, etc.

#### Governments Pay taxes, comply with laws and regulations

Employees

Increase employee satisfaction, ensure excellent personnel, etc. by ensuring employment, respecting human rights, and offering occupational safety and health, education and training, and workplace where they can feel proud

the MOL Group Corporate Principles, and believes its participation in the Global Compact will promote awareness of our CSR efforts among stakeholders as well as MOL Group employees around the world.

UN Secretary-General Kofi Annan, who initiated the Global Compact, visited Japan as a guest of the Foreign Ministry in May 2006 and exchanged opinions with Japanese corporate leaders. Then-MOL Director and Senior Managing Executive Officer Hidehiro Harada (now Deputy President) attended the meeting.

Through support and implementation of the Global Compact, reflecting universal standards and rules of conduct recognized around the world, we are promoting the MOL Group's CSR activities on a worldwide scale.

### Efforts to Promote CSR Awareness among Group Employees

MOL published the CSR handbook in September 2005, and distributed to over 10,000 to Group employees around the world, including those serving aboard vessels. The handbook explains the MOL Group's objectives and approaches to CSR, which cover a range of issues – mainly employee rules of conduct, in a concise manner. It is used in education and training programs (please refer to page 40 and 41 for details) and at the MOL College (please refer to page 45) to foster CSR awareness.





UN Secretary-General Kofi Annan and then-MOL Director and Senior Managing Executive Officer Hidehiro Harada (center in the back row)







The above three committees, as subcommittees of the Executive Committee, are mainly responsible for CSR activities.

## Current Status of MOL Group's CSR Activities

The MOL Group makes great effort on CSR activities to win the trust of society and contribute to worldwide sustainable growth.

### Looking Back at Activities in 2005

In our CSR and environmental activities during 2005, we took a serious look at the collision of the crude oil tanker Kaminesan, which occurred in 2004. And as a result of our preventative measures and safe operation, no serious marine accident occurred during 2005. In addition, we have proceeded to expand our fleet, which now totals over 700 vessels, and is slated to increase to 900 by the end of fiscal year 2009. The company restructured ship management organization in the tanker division (please refer to page 22 for details). MOL continues to have a thorough safety operation while examining how the ship management system should be.



Hidehiro Harada Representative Director, Deputy President Chairman of CSR and Environment Committee

Speaking of environmental protection, total emissions of CO<sub>2</sub> (greenhouse gas), NOx, and SOx, increased as a result of fleet expansion backed by continued favorable conditions for ocean trade during 2005. We continued to introduce vessels and devices featuring energy-saving and environmental technologies, such as wind/water resistance reducing designed vessels and energy-saving propellers. Emissions per unit load were nearly the same as the previous year despite the launch of newly designed vessels. (Please refer to page 7 for details.)

In addition, the company implemented an employee satisfaction survey during 2005 (Please refer to page 41 for details). In general, our employees feel proud of working at the company, and their satisfaction is higher. On the other hand, some expressed slightly lower satisfaction in terms of working conditions. Based on these results, we hope to examine the working environment and create a workplace that is more comfortable and satisfying.

In social contributions, the company implemented the first MOL Kids Cruise. We conducted an essay contest and selected 157 students in grades 4 through 8, along with their parents, to take a trip aboard the cruise ship Nippon Maru. What's more, our employees operated this project on a volunteer basis, developing programs to build deeper understanding of the maritime industry and environmental issues among youngsters. We will continue such efforts in the future. (Please refer to page 48 for details.)

### About 2006 Activities

In order to further improve our approaches during 2006 by looking back at past activities, we set a new annual target, with the goal of making sustainable growth a reality. Future efforts will continue to focus on enhanced operating safety and environmental protection. CSR demands a long-term approach. A low-key, step-by-step effort creates value that leads to sustainable growth. The MOL Group takes CSR activities seriously, and strives to win the trust of society through fair business practices and concern for people and the environment.

## MOL Group's Approaches to CSR: Achievements for FY2005 and Targets for FY2006

Issues	FY2005 main targets	FY2005 main achievements	FY2005 main achievements	Pages
Compliance	Further penetration in MOL and Group companies	Established action guidelines of antimonopoly act Implemented in-house seminars concerning relevant laws and regulations	Maintain and reinforce the system through ongoing approaches (i.e. thorough conformity with action guidelines of antimonopoly law)	18–19
Corporate Governance	Deepen study based on New Corporate Law and other cases, and of other companies in Japan and overseas	Continued to study New Corporate Law (effective in May '06)	Reinforce governance by enhancing internal control functions referring to New Corporate Law	18
Respect for human rights and employees	Extend and introduce new personnel system to all employees except clerical workers     Implement employee satisfaction survey	Introduced new salary system to managers and assistant managers Implemented employee satisfaction survey	<ul> <li>Promote use of retired workers</li> <li>Study upgrade of business and introduction of new salary system for clerical workers</li> <li>Reinforce training (incl. human rights) and training facilities</li> <li>Study introduction of reduced work hours</li> <li>Study system considering work-life balance</li> <li>Deepen communication with employees</li> </ul>	40-45
Environmental protection	<ul> <li>Increase target companies in Group Environmental Target System (target all domestic consolidated subsidiaries)</li> <li>Encourage Group companies to acquire external certification of environmental management</li> </ul>	Increased target companies (63 companies)     Seven Group companies acquired Green Management Certification     Participated in Team Minus 6%     Introduced environmental e-learning     Established MOL Group Environmental Award	Encourage domestic Group companies to acquire external certification     Approaches to revised Energy Saving Law     Promote use of low sulphur fuel oil     Promote disposal of onboard waste in a manner that exceeds legal standards	8 26 29–30
Quality control	Develop and upgrade seafarer education, and further strengthen ship management and inspection	Passed screening of ISO9001:2000     renewal     Implemented companywide safety checks	Continuously improve along with quality management system     Set forth procurement policies	20–21
Safe operation and risk management	Enhance seafarer training     Strengthen safety management system	Enhanced training system for overseas manning companies     Opened MOL Training Center (MSU Russia)     Reinforced BRM training system     Promoted vessel information sharing (integrated LAN system test started)	Restructure ship management system aiming at safer operation     Reinforce approaches to seafarer employment and education     Improve exchange of information with vessels through stepped-up vessel inspection	20–23
Information disclosure and accountability	Establish information disclosure standards attuned to the times     Introduce CSR special section as part of in-house magazine (April)     Publish CSR handbook for Group employees	Employed information consulting company, and established disclosure standards     Published and distributed CSR handbook for Group employees	Check specifics of information disclosure considering points to keep in mind in case of an accident     Increase various stakeholders' interest and understanding of ocean shipping, vessels, and the MOL Group	15–16 38 50
Social contribution	Planned MOL Kids Cruise     Continue to develop other existing     activities	Continued to work on existing activities     Implemented MOL Kids Cruise     Contributed money to disaster relief and     helped transport aid supplies     Promoted cooperation with UN World     Food Plan (WFP) and NPO	Continuously work on existing activities     Consider activities related to communities     Implement activities to realize a     sustainable society     Introduce employee-participation     programs	46–48
Others	• Activities through UN Global Compact Japan Network (GCJN)	<ul> <li>Deepened approaches through GCJN activities</li> <li>Participated in Social Innovation Japan</li> <li>Implemented CSR approach survey at overseas Group companies</li> </ul>	Deepen deployment of CSR overseas     Implement Customer Satisfaction (CS)     survey	15 39

Issues	FY2010 environmental targets	
Measures against global warming	Reduce $CO_2$ emission per unit load from MOL-operated vessels by 10% from FY2005 levels	
Approaches to air quality	Reduce NOx/SOx emission per unit load from MOL-operated vessels by 10% from FY2005 levels	

## **Corporate Governance and Compliance**

One of MOL Group Corporate Principles says the group must "promote an open and visible management style that is guided by the highest ethical and social standards." The MOL Group works to create an optimum governance system with a painstaking approach to compliance.

#### Basic Policies (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 respect 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.

#### New Rules of Conduct Conform to Antitrust Laws

MOL rules of conduct demand conformance with laws and regulations in foreign nations to maintain and promote fair and free competition. In July 2005, the company strengthened the rules of conduct to conform to antitrust laws. MOL continues to work on various approaches to compliance.

### Basic Concept of Corporate Governance

MOL believes the optimum governance style relies on management by the board of directors with participation of outside directors who are indispensable for corporate governance, supervising and encouraging operations of the president as chief executive officer. Based on this belief, we have completed various management restructuring efforts. The company also believes that improved corporate governance enhances the transparency of corporate management from the viewpoint of shareholders, and seeks to establish a system that maximizes stakeholders' profits through optimum allocation of management resources. In the MOL Group Corporate Principles, this concept is stated as follows: "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."

### Measures Concerning Corporate Governance

The Board of Directors consists of eight internal and three outside directors (as of July 2006). Three outside directors check the appropriateness of management decisions and the status of operational execution from the viewpoint of shareholders, and at the same time, play a key role of revitalizing the Board of Directors by expressing beneficial opinions on overall management. The Corporate Planning Division provides the outside directors with advance notice of proposals or agenda items to be discussed at the Board of Directors Meeting, and reports important issues to them regularly. Thus, the company provides a system that allows outside directors to effectively carry out their supervising functions.

For business execution, MOL took steps to improve the Board of Directors by inviting outside directors and introducing the executive officer system in 2000. The executive officers, who are appointed at the Board of Directors and delegated authority from the representative directors, work to speed up management based on the best policies determined by the Board of Directors. The Executive Committee, as the supreme decision-making body at the operational execution level, functions as a deliberative body on important issues related to basic management plans and key matters related to business execution.

The company adopted the corporate auditor system, and two of four auditors are appointed from





the outside. The Internal Audit Office, independent from each division and office as an organization directly controlled by the Executive Committee, audits the business operations of the divisions/offices and Group companies in cooperation with the corporate auditors and independent public accountants that conducts the legal audit. In May 2006, MOL established the Corporate Auditor Office as an organization directly controlled by the corporate auditors and Board of Auditors, thus creating a system that allows for more practical and efficient oversight of the corporate auditors.

### Approaches to Compliance

MOL believes compliance means more than just strictly complying with laws, regulations, and internal rules (including "rules of conduct" set forth independently); it also covers corporate activities and daily operations based on social norms and corporate ethics. The range of social responsibilities the

company should bear has continued to grow - obligations to stakeholders who have grown more numerous and more diverse as a result of our business expansion and globalization, and improved awareness of the need to protect the ocean and global environment. The MOL Group is well aware of this responsibility, and is painstaking in its approach to compliance.

### **Organizations Responsible for Compliance**

### **Compliance Committee**

The company established the Compliance Committee as a subordinate organization of the Executive Committee, with the Deputy President as the chairman and the membership made up of Executive Officers responsible for the Internal Audit Office, Human Resources Division, and Corporate Planning Division. The committee strengthens the companywide compliance system, and sets penalties for violations.

#### **Compliance Officer**

General managers of divisions, offices, and branches are appointed as compliance officers. They take a strict approach to compliance and are responsible to report any violation to the Compliance Committee Secretariat Office and promptly take necessary corrective actions. In addition, they are required to strictly preserve the confidentiality of anyone reporting a compliance issue.

#### **Compliance Advisory Service Desk**

The Compliance Advisory Service Desk handles cases that are difficult to report through compliance officers. The General Manager of the Internal Audit Office, independent from divisions, offices, and branches, is responsible for the desk. Consultation to the Advisory Desk is carried out by e-mail, telephone, or letter after the person reporting the issue gives his or her name. The General Manager of the Internal Audit Office will meet with persons reporting compliance issues depending on their needs, and ask the Compliance Officer and the General Manager of the Counseling and Aid Center in the Human Resources Division to assist, depending the nature of the problem. In these cases also, the confidentiality of anyone reporting a compliance issue will be strictly protected. Issues will be reported to the Compliance Committee Secretariat Office when the need arises, and they will conduct necessary investigations and auditing. The person reporting the issue will receive feedback on how the issue was resolved. In addition, the person reporting the complaint and those who cooperate in the investigation are protected from any retribution or unfair treatment.

### **Compliance systems at Group companies**

MOL Group companies, as independent corporations, build their own compliance systems. In case a violation occurs at a Group company, the company shall promptly address it according to internal regulations, and take preventive measures. At the same time, the compliance officer of the MOL branch, division, or office responsible for management of that company, reports it to the Compliance Committee Secretariat Office without delay. If the violation may affect MOL Group management, it will be reported to the Compliance Committee. MOL Group companies' directors and employees who find violations at a Group company can also consult with the MOL Compliance Advisory Service Desk.

### **MOL Group Rules of Conduct**

MOL sets forth rules of conduct for directors and employees, based on the viewpoints of various stakeholders. If the company directors and employees implement the rules of conduct, the MOL Group will create a better working environment for everyone. This improves corporate business activities, wins and retains the trust of stakeholders surrounding the company, and leads to continuously increasing corporate value.

#### Rules of Conduct (Compliance Rules Article 4)

All company personnel must act within the following Code of Conduct when carrying out their work duties. Company personnel shall, at all times:

#### 1. Observe

- Observe: the laws of Japan and all other nations, and "regulations and the like" and act in accordance with social standards and corporate ethics while at all times exercising due caution as a good administrator
- 2. Respect human rights and prohibit discrimination and 2. Respect human rights and prohibit discrimination and harassment by: respecting every individual's basic human rights; and not discriminating based on ethnicity, faith, religion, nationality, age, sex, class, disabilities, and the like, understanding, appreciating, and valuing the diversity of cultures, customs, and so on, in every area and nation, not subjecting anyone to sexual harassment or making difference nerval memoke and host acting or conclusion in a ware difference nerval memoke and host acting or conclusion in a ware

- offensive sexual remarks and not acting or speaking in a way that might be misunderstood as sexual harassment. 3. Observe confidentiality of information and respect
- intellectual property rights by:
   not revealing confidential company information to a third party without permission and not using such information
- handling confidential information from third parties such as clients and contractors in the same way as you would handle the company's confidential information, onot buying or selling shares of our company or outside companies based on knowledge of important internal information until that information is officially announced (Insider trading is prohibited.),
   not using or obtaining confidential information from third parties unjustly,
   not violating the intellectual property rights of third parties, for example, by copying or using computer software withou authorization.

#### 4. Draw a clear line between official and personal

- onduct, and avoid conflicts of interest by
- not acting against the company's interests. not using company property or funds for any activities against the company's interests.
- 5. Avoid antisocial activities by taking a stern and uncompromising antisocial forces and groups that m sing attitude agains ay threaten public order and safety, and not taking part in antisocial acts
- 6. Fulfill social responsibility by:
- endeavoring to make a positive contribution towards realization of better society as a good company citizen in international society and a community,
- recognizing the importance of transparency in management and properly disclosing corporate information to promote understanding and trust among various stakeholders.
- 7. Ensure safe operation and environmental protection by: voluntarily, aggressively working to protect the marine and global environment, by enforcing standards for vessel operating safety and respecting environmental laws and regulations.
- 8. Build trusting relationships with clients and
- striving to build strong, trusting business relationships and partnerships with honesty, transparency, and equality,
   respecting laws and regulations in various nations, including antitrust laws, to maintain and promote free and fair comparities.
- antitrust laws, to maintain and promote free and fair competition, not giving or accepting money, expensive gifts, business entertainment, or economic earnings of an inappropriate value when dealing with representatives of contractors, not offering bribes or unlawful profits, or promising them in any relationship with government agencies in Japan or overseas.
- Leadership and management demands that:
   directors and employees in management positions shall lead by example, carrying out the Code of Conduct honestly and demanding the same of affiliates, subsidiaries, and entrusted companies which dispatch employees.

#### 10. Report and consultation means:

- Teporting and consulting with the Compliance Officer, Compliance Committee Secretariat, or Compliance Advisory Service Desk without delay, if a company individual learns of a breach of compliance or the one that may be considered; and not giving silent acquiescence or covering up breaches

- by him of her, all company personnel shall cooperate with investigations related to any alleged breach, the offender and his/her supervisor may be subject to caution/warning in Article 14 or disciplinary action in Article 15, if an investigation determines that a breach has occurred, the company strictly maintains the confidentiality of company personnel who reported a breach and cooperated in related investigations to protect him or her from retaliation, and guarantee him or her that he or she shall not be treated unfavorably.

\* Articles 14 and 15 are omitted

Safe vessel operation is not only fundamental to the MOL Group's business activities, but also critical to protecting the marine and global environment. The MOL Group sets out basic policies on safe operation and works hard to ensure safety in both hardware and software aspects of operations.

### **Ensuring Safe Operation**

Our business activities take place on the ocean, which has always been shared by everyone in the world and really belongs to all of us. Therefore, maintaining the well-being of the ocean is the most basic social responsibility for us in the ocean shipping business. In particular, safe vessel operation is key to preserving the marine environment, safeguarding human life, and protecting cargo and trade. Vessel accidents can cause serious destruction of the marine environment through spills of fuel oil or cargo from tankers. The entire company strives to prevent the accident, on the premise that safe vessel operation is the basis of our business. The Marine Management Division sets forth policies concerning groupwide safety standards. We conduct periodic vessel inspections, and provide training, supervision, and advice to ship management companies\* in order to ensure compliance with company policies and rules on vessel operation.



Soichi Hiratsuka Executive officer, General Manager, Marine Management Division

#### Basic Policies of MOL's Safe Operation

- Respect and follow laws and regulations.Maintain safe operation and provide reliable
- transportation
  Protect human life and the marine environment
- Protect human life and the main life and th
- Improve personnel skills
- Ensure reliable vessel maintenance and management

#### \* Ship management company

The number of MOL-operated vessels totals 570. About a half of them are MOL-owned and bare charted vessels\*<sup>1</sup>, and the rest are time chartered vessels\*<sup>2</sup> from third parties. MOL-owned and bare chartered vessels are managed by ship management companies within or outside the MOL Group. The wellexperienced ship managers of these companies are responsible for arranging allocation of highly skilled seafarers, training in safe operation, maintenance and repair of the vessels, and procurement of high-quality supplies and components.

With time chartered vessels, ship management is entrusted to each ship owner in principle. But MOL adopts its unique quality standards to all operated vessels without distinguishing between owned vessels and chartered vessels. We determine the management status of the vessels through inspections and direct instructions, and provide strict quality management through feedback and instructions to ship management companies and ship owners.

#### \*1 Bare charter

Ship owner charters out the vessel without the crew.

#### \*2 Time charter

Ship owner takes responsibility to maintain and manage the vessel, and charters out the vessel with the crew.



ISO9001 Certification logo

### MOL Safety Management System

When it comes to safety, MOL addresses both hardware and software aspects, such as maintenance and control of hulls and equipment, establishment of engineering standards, and education and training of seafarers. These approaches are reflected in its unique quality management system called the MOL Safety Management System. The system has acquired certification from Det Norske Veritas (DNV) for conformance with ISO9001:2000 international standards.

### Safe Operation System

The Operational Safety Committee, chaired by the MOL president, studies, reviews, and institutes basic guidelines concerning safe operation for MOL and MOL Group companies.



### MOL Group Quality Management System for Safe Operations

### Emergency Response System

MOL prepared an emergency response manual to ensure that any type of marine accident is dealt with promptly. If a major accident occurs, the company is ready to create an emergency task force led by

Mid-term plan (FY2004–2006)

Ensure safe operation

2005 targets	Achievements	Evaluation	2006 targets
Prevent serious marine accidents including oil spill	No serious incident occurred	0	Prevent serious marine accident including oil spill

the president with the assistance of the executive officer responsible for Marine Management Division. MOL has also established a companywide emergency response system centered on the emergency task force to prevent the spread of any environmental damage and take immediate steps to safeguard human life and property. To ensure readiness for any such emergency, the company conducts periodic drills based on a realistic accident scenario.

### Vessel Inspections — Overall Inspection of Operated Vessels' Safety

Periodic vessel inspections are indispensable to help define our approaches through direct instruction and audits on safe operation and environmental protection. What's more, the inspections help us monitor performance of ship management companies, ensure the implementation of MOL policies, and reflect MOL's intentions as the vessel operator (the party involved in the transportation contract). Inspections cover conditions in various parts of the vessel – such as the bridge, decks, cargo holds, engine room, navigation gauges, fire protection equipment, mooring machinery – operation methods, maintenance activities and records, update and revision status of nautical charts, and storage of vessel supplies. The inspections also confirm proper disposal records of waste and oil and records of onboard environmental education.

### Safety Check Implementation (February to April 2006)

MOL has conducted a Companywide Safety Check, which is separate from normal vessel inspections, every year since 1995. This year, we implemented the checks for two months from February 16 to April 15, selecting 119 vessels of all types, and checked the main items shown on the right. In addition, we give instructions and advice to ship management companies and owners of chartered vessels based on analysis of daily vessel inspection and problem data. And of course we thoroughly communicate company policies concerning safe operation and environmental protection to them.

### Reinforcing Anti-terrorism and Anti-Piracy Measures

Terrorism and piracy that target vessels and cargo, and illegal use of vessels to transport weapons and people, have received greater attention since the September 11, 2001, terrorist attacks in the United States. The number of incidents of piracy (including attempts) reported during 2005 totaled 276 around the world. Seafarers who must navigate dangerous waters face hard work and tremendous levels of stress.

The company has strengthened its onboard security plans with improved surveillance in dangerous waters and stricter control of vessel supplies and cargo from outside parties, in line with the Vessel Security Plan and Anti-Terrorist and Anti-Piracy Response Manual. We strive to prevent losses due to terrorism and piracy through tightened security measures.

#### Vessel Security System





Table top drill based on an accident scenario involving a containership

#### FY2005 priority items to be checked

- (1) Communication status of MOL manuals and guidelines
- (2) Prevention of air pollution
- (3) Inspection of Port State Control (PSC\*) items to be checked
- (4) Prevention of engine trouble(5) Prevention of accidents resulting in injury
- or death (6) Painstaking environmental protection

\* Port State Control (PSC): The system of onboard, on-the-spot inspections by national authorities when a foreign vessel calls at a port. It aims to eliminate sub-standard vessels that do not meet international standards for safety and environmental protection.



A vessel inspection in progress



Watch on deck

### FY2005 Major Activities: Reorganization of Ship Management Structure

MOL decided to reorganize the ship management structures for its tankers, and containerships/car carriers/bulk carriers. The goal was to create an organization that ensure consistent implementation of the Head Office's safe operation policies throughout the MOL Group fleet by clearly linking the Head Office, Group ship management companies, and vessels, in light of expansion of the scale of fleet operations. For that purpose, MOL established the core ship management company that has headquarters functions, and formed a structure to position several companies all over the world under the supervision of that company.

### Tankers

MOL's Marine Management Division Tanker Supervising Group, which handled overall tanker management, was consolidated into a Group ship management company, International Energy Transport Co., Ltd., which was renamed MOL Tankship Management Ltd. Two ship management companies in London and Singapore were restructured under MOL Tankship Management.

#### Containerships/Car Carriers/Bulk Carriers

MOL established two new ship management companies overseas, and started a new management system with six companies in Tokyo (M.O. Ship Management Co., Ltd., Mitsui Kinkai Kisen Co., Ltd.), Hong Kong, Rotterdam, Singapore, and Manila. With this new system, ship management companies around the world can more effectively oversee the expanding fleet, monitor operations aboard vessels, and provide more dependable management services. In the future, the company plans to reorganize these ship management companies under the core company to which headquarters functions are transferred, as it has done with tankers.

#### **Basic Concept**

Tankers



#### Containerships/Car Carriers/Bulk Carriers



### Upgrading BRM Training with Vessel Operation Simulator

The company has its own MOL Training Centers in seven nations around the world – Japan, Philippines, India, Montenegro, Croatia, Indonesia, and Russia (opened in August 2005) – to enhance education and training of seafarers who will serve on MOL-operated vessels. As part of that, the company has upgraded the Bridge Resource Management (BRM) training program targeting seafarers on its very large crude carriers (VLCCs) since 2004. BRM is a basic concept encompassing skills and effective means of preventing marine accidents caused by human error, by controlling all elements in the bridge (information, equipment, environment, and human aspects). MOL positions this program as a key to safe operation of its vessels, and expanded its target from about 460 seafarers aboard VLCCs (tankers) to about 1,800 seafarers of captains, navigation officers, and crew members serving on LNG carriers, containerships, bulk carriers, and car carriers.

In concrete terms, the program sets up various situations using the most advanced simulator developed by the MOL Group's M.O. Marine Consulting Co., Ltd. The training centers also combine multinational trainees to recreate the cross-cultural environment they will experience on actual vessels.

### New and Upgraded MOL Training Centers

As mentioned above, MOL operates training centers all over the world to recruit and develop topquality seafarers who are indispensable for maintaining safe operation.

In August 2005, MOL opened the new MOL Training Center (MSU-Russia) in Vladivostok. Allocation of Russian seafarers on MOL-operated vessels started in 2002, and they currently serve on 12 vessels. As Russia emerges as a key source of seafarers, the company will assign them to even more vessels in the future. To further develop the onshore training system in addition to onboard education, MOL tied up with the local marine educational institute, the Maritime State University (Vladivostok Maritime University) to open a training center on the university campus. The center features training equipment such as a vessel operation simulator, a main engine remote control simulator, and reefer containers.

MOL also positions India as a key source of seafarers. In order to meet the increasing demand for seafarers associated with the expansion of our operated fleet, the company expanded the capacity of the training institute in Mumbai, which opened in 1995, from 220 trainees to 350 a year in 2005. At the same time, the size of the central floor area including office was doubled, and MOL-developed training equipment such as a PC-based LNG loading/discharging simulator and turbine engine simulator were introduced. (September 2005).



State-of-the-art vessel operation simulator at M.O. Marine Consulting, Ltd.



Exterior of the Vladivostok Training Center



A lecture at the India Training Center

The MOL Group is well aware of the environmental burden its business activities generate, and takes various steps to offer environmentfriendly services. These include launching environment-friendly vessels; minimizing the environmental burden of vessel operations; measures to prevent global warming; efforts to conserve energy; measures to reduce waste, air/marine pollution, and soil contamination; recycling of resources, development and introduction of environment-friendly technologies; and many more.

## **MOL Group Environmental Policy Statement**

As one of the world's leading multi-modal transport groups, Mitsui O.S.K. Lines 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 navigation;
- 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.

Established in September, 2000 Revised in March, 2003

ISO14001 Certification (scope is same as MOL EMS 21)



ISO14001 Certification logo

Scope:

All divisions of MOL Head Office and all MOL-operated vessels (not including short-term chartered vessels within one-year contract)

All divisions of the Mitsui O.S.K. Passenger Line, Ltd. Head Office and Nippon Maru

All divisions of the MOL Ferry Co., Ltd. Head Office and their operated ferries/RORO ships

Scope of application:

Business activities on site and the head office, related to "total logistics and cargo transport services, Nippon Maru cruise service, and ocean transport services of ferries/RORO ships"

Auditing authority: Det Norske Veritas (DNV) in Norway

Scheme:

Read Voor Accredited (RVA) in the Netherlands

## **Environmental Management System**

We introduced two unique environmental management systems, MOL EMS21 and the Group Environmental Target System, to promote business activities in accordance with our Environmental Policy Statements and work on environmental protection activities including reducing our environmental burden through the Plan-Do-Check-Action (PDCA) cycle.

### MOL EMS21

We started to operate the environmental management system, MOL EMS 21 in April 2001. In January 2003, we extended to adopt this system in all operated vessels (not including short-term chartered vessels within one-year contract), and acquired the environmental management system's international standards ISO14001 certification. What's more, we expanded the scope of our certification to Mitsui O.S.K. Passenger Line, Ltd. in September 2003 and MOL Ferry Co., Ltd. in January 2004.

### MOL Group Environmental Target System and MOL Group Environmental Meeting

We enhance our environmental protection activities through the MOL Group Environmental Target System, which targets 67 domestic consolidated subsidiaries and affiliates (except Mitsui O.S.K. Passenger Line, Ltd. and MOL Ferry Co., Ltd.) and four overseas subsidiaries, as well as the MOL EMS 21 environmental management system targeting MOL, Mitsui O.S.K. Passenger Line, and MOL Ferry (as of July 2006). The MOL Group Environmental Target System consists of setting common targets for all companies, measuring achievements, and self targets set by each group company. We use the PDCA cycle to set environmental targets for companies at the beginning of every fiscal year and promote

Mid-term plan (FY2004–2006)

Promote the environmental protection activities at domestic Group companies and overseas subsidiaries

2005 targets	Achievements	Evaluation	2006 targets
Enhance environmental management operation system     and deepen environmental protection activities	Held group environmental meeting (March). Added two Group companies in the MOL Group Environmental Target System	0	<ul> <li>Enhance and deepen environmental protection activities through group environmental target system, etc.</li> <li>Promote acquisition of external certification for environmental management</li> <li>Foster environmental education and eco leaders in Group companies</li> <li>Introduce group environmental accounting</li> <li>Reinforce group environmental compliance system</li> </ul>
Develop group-wide environmental education and training, and foster eco leaders	Implemented environmental e-learning trial. The results to foster group eco leaders were not satisfied		
Introduce group environmental accounting	Implemented trials to some companies	0	
Reinforce group environmental compliance system	Added two (2) Group companies	0	
Continue to acquire external certification for     environmental management	Seven (7) Group companies acquired Green Management Certification	0	

continuous improvement in subsequent years through half-yearly and year-end reviews. What's more, we hold the MOL Group Environmental Meeting once a year, encouraging group companies to discuss common issues faced by the MOL Group, introduce examples of advanced approaches, and exchange information and opinions.

### **Environmental Management Promotion System**

The CSR and Environment Committee, directly under the Executive Committee, manages and operates MOL EMS 21 and MOL Group Environmental Target System, while cooperating with the Operational Safety Committee.



Group environmental meeting

#### MOL Group Environmental Management System



### **Environmental Audits**

Under MOL EMS21, the chairman of the CSR and Environment Committee, as the executive in charge of environmental management, receives results of regular internal audits, which are executed more than once a year, and confirms that the system functions effectively. While the internal audits are implemented by the CSR and Environment Office targeting all divisions and offices at the Head Office, the Marine Management Division implements the environmental inspections of vessels. In addition, maintenance audits are implemented annually, and renewal audits are conducted every three years by an ISO14001 external certification body (DNV).

The CSR and Environmental Office implements audits, centering on environmental compliance viewpoints, of the target companies of the MOL Group Environmental Target System, in cooperation with the Internal Audit Office.

MOL Group Companies with Green Management Certification

Company name	Acquired month
Kyushu Kyuko Ferry Co., Ltd.	August 2005
International Container Transport Co., Ltd.	October 2005
The Diamond Ferry Co., Ltd.	November 2005
Meimon Taiyo Ferry Co., Ltd.	December 2005
Blue Highway Line Nishinihon Corporation	January 2006
Diamond Line K.K.	February 2006
Green Kaiji Kaisha Ltd.	March 2006
Kansai Kisen Kaisha	May 2006



Award ceremony for the first MOL Group Environmental Awards

#### **Policies to Prevent Soil Contamination**

In Japan, the law to prevent soil contamination was enacted in February 2003. The law came about after cases of soil contamination by harmful substances such as heavy metals and volatile organic compounds (VOC) associated with redevelopment of old factory sites were revealed. Society is much more aware and concerned about these issues. We don't use harmful substances specified in the law, and strictly conform to national and local environmental regulations. Toward that end. in November 2004, we set forth policies to prevent soil contamination, outlining proper disposal in the context of the aforesaid land record survey and MOL Group Environmental Policy Statement, and confirmation of existence or non-existence about specific facilities and the past use of specific harmful substances.

### Green Management Certification

The MOL Group has taken the initiative in acquiring Green Management Certification, founded by the EcoMo Foundation to set environmental management standards for transportation companies. Our Kyushu Kyuko Ferry Co., Ltd. became the first domestic coastal transportation company to acquire the certification, and the Group companies in the chart at left have acquired the certification (as of July 2006).

### MOL Group Environmental Awards Founded

We founded the MOL Group Environmental Awards this year as an incentive to educate and motivate MOL Group directors and employees about the importance of environmental protection activities.

MOL Group Environmental Awards are presented by the Chairman of the CSR and Environment Committee to the MOL Head Office (covering divisions and offices of the MOL Head Office and vessels) and MOL Group companies (covering MOL Group companies in Japan and overseas that participate in the MOL Group Environmental Target System), for the best efforts in development and introduction of environmental technologies and activities.

The first selection of honorees was held in June 2006. The Car Carrier Division, Technical Division, and M. O. Ship Management Co., Ltd. received the highest award for their excellent efforts on energy conservation measures for car carriers – development of vessels designed to reduce wind/water resistance and the development and adoption of an exhaust gas emission filter. The following Group companies were also honored:

Outstanding performance award:

MOL Ferry Co., Ltd. (for receipt of the sixth Logistics Environmental Grand Award)

Excellence award:

Kyushu Kyuko Ferry Co., Ltd. (as the first company in Japan's domestic coastal shipping industry to acquire Green Management Certification)

Mitsui O.S.K. Techno-Trade, Ltd. (for receiving more than 1,000 orders for the PBCF).

### Caring for the Environment When Scrapping Vessels

Aging vessels must often be removed from service and scrapped in the interest of safe operation and protection of the marine environment. At present, many scrapping projects are carried out in India, Bangladesh, and China. Selection of scrapping yards must be based not only on environmental aspects, but also working environment.

MOL sets forth the guidelines and environmental aspect evaluation sheets when selling a vessel for scrapping. We confirm that the scrapping yard has acquired ISO14001 certification or the equivalent, and evaluate scrapping methods and procedures to ensure the safety of personnel and the environment. And when delivering a vessel for scrapping, we always minimize the volume of fuel oil and ballast water on board, and provide prior notice of the location of any hazardous materials.

We operate mostly newer vessels, and do not have many to sell for scrapping. During FY2005, for example, we did not sell any vessels for scrapping.

Finally, most scrapped vessel parts/components and steel plates are recycled for more effective use.

## The MOL Group and the Environment

The MOL Group conducts a range of business activities on land and at sea, including ocean shipping. In the course of those activities, we place a burden on the environment – for example, CO<sub>2</sub> emissions mainly associated with fossil fuel consumption. Following is a summary of MOL and MOL Group environmental impacts, such as consumption of fuel, electricity, and office paper during FY 2005. In the future, the MOL Group will continue to make serious efforts to reduce its environmental burden in various ways.





\*1 Fuel oil (C oil): Mainly for main engines

\*2 Diesel oil (A oil): Mainly for on-board generators

\*<sup>3</sup> MOL Naiko, Ltd., MOL Ferry Co., Ltd., The Diamond Ferry Co., Ltd., Kyushu Kyuko Ferry Co., Ltd., Blue Highway Line Nishinihon Corporation, Nihon tugboat Co., Ltd., Green Kaiji Kaisha, Ltd. Ube Port Service Co., Ltd., Kitanihon Tugboat Co., Ltd., Green Shipping, Ltd., Kusakab Marine Engineering Co., Ltd., Mitsui O.S.K. Techno-Trade Co., Ltd., and Kobe Towing Co., Ltd. (13 companies in total) However, this category does not match the company's segment classifications.

\*4 Mitsui O.S.K. Kinkai, Ltd., Tokyo Marine Co., Ltd., Mitsui O.S.K. Passenger Line, Ltd., and M.O. Cableship Ltd. (four companies in total) However, this category includes some results related to transport services in Japan. \*5 Data on SOx emissions of Group companies is not available.

\*<sup>6</sup> All consolidated subsidiaries in Japan, not including data from small companies whose environmental burden is negligible. In addition, this category includes the actual figures for activities such as terminals and on-land transport, as well as the environmental impact in associated with consumption of such fuels at offices.

## Approaches to Marine Environmental Protection

The MOL Group recognizes its responsibility to take every possible means to ensure safe operation, make all-out efforts to prevent marine pollution resulting from accidents and oil spills, and strive to operate vessels in a way that minimizes their burden on the marine environment.



Ballast water disposal system



Double-hull structure



Containership coated with silicon resin paint

### Ballast Water

When a vessel sails without cargo, it must take on ballast water to adjust the draft and ensure that the propellers are at the proper position in the water. Seawater is as pumped into dedicated tanks aboard ships to serve as ballast. The ballast water is then discharged when the vessel reaches the port where it takes on cargo. As a result, marine organisms can be transported among different regions, causing harm to the marine environment. This problem became an international environmental issue in the late 1980s.

The International Maritime Organization (IMO) sought to address the problem by adopting a new international treaty for the control and management of ships' ballast water and sediments in February 2004. Under this treaty, effective in 2016, vessels cannot discharge ballast water unless it is treated to meet a certain standard. MOL currently complies with the guidelines and regulations covering various calling ports, and change ballast water in the open sea, at a certain distance from the land, which is permitted as an alternative treatment, until ballast water treatment methods are developed. The company also works proactively on research and development to render ballast water harmless, and cooperates with manufacturers and industry organizations to conduct on-land performance tests of ballast water treatment equipment (pilot units) and install it on vessels for onboard demonstrations. MOL sees tremendous possibilities in this work, and hopes to find a solution to the ballast water issue as quickly as possible.

### **Double-Hull Tankers**

MOL has the world's largest tanker fleet, and is expanding its global activities as an expert in energy transport. In particular, operation of tankers that transport mass volumes of crude oil demands strict safety standards. The company works toward continuous improvement of safe operation technologies and provides emergency response training to land-based employees as well as seafarers. What's more,

MOL is taking an aggressive approach to adopting double-hull vessels in its tanker fleet – a key to preventing spills of crude oil, petroleum products, and chemicals in case the outer hull is breached by a grounding or collision with another vessel. At present, the company operates 92 crude oil tankers, product tankers, and chemical tankers, and 78 tankers, or 85%, have double hulls.



### **Using TF Ship Bottom Paints**

Fuel efficiency declines when barnacles and marine plants attach to the bottom of a vessel and increase the hull's resistance as it travels through the water. The traditional approach to this problem has been to coat ship bottoms with paint containing tributyl tin (TBT). But in the late 1980s, researchers recognized that TBT, as an environmental hormone, poses risks to human health, and the IMO has discussed limiting its use. At a conference in 2001, the IMO adopted a new treaty banning the use of TBT paints as of January, 2003, and requiring an elimination of TBT paint from vessels or overlaying coatings to prevent TBT from leaching into seawater, as of January 2008.

In Japan, marine-related industries teamed up to effect a complete ban on the use of TBT paint on

Mid-term plan (FY2004-2006)

Protecting the marine environment

2005 targets	Achievements	Evaluation	2006 targets	
Complete switch to TF ship bottom paint on all managed vessels during FY2005	• Completed	0	Continue to evaluate and develop ballast water purification technologies	
Step up efforts to evaluate and develop ballast water purification technologies	Studied integration with other companies' technologies	0	Continue to adopt double-hull tankers     Continue to conduct onboard tests of silicon     resin paints	
Continue adoption of double-hull tankers	Six (6) double-hull tankers were launched	0		
• Examine silicon resin paints	Conducted analysis of onboard tests and continued to     accumulate data	0		

newly constructed vessels and those being repaired in Japan, starting in 1990. MOL also changed to tin-free (TF) paint even on new vessels built overseas starting in 1999, and has pushed forward to repaint vessels dry-docked overseas with TF paint since FY2000. As a result, MOL has completed the switch to TF paint on all its managed vessels well in advance of regulatory requirements.

We have also conducted practical tests of a new silicon resin paint that is expected to offer longterm antifouling performance.

### Processing Waste Oil

Vessel fuel oil contains many impurities, so water and impurities are extracted by pre-treatment before it is used in main engines, power generators, and boilers. Waste oil from this process is heated in a separate tank to remove water, and then incinerated in conformity with environmental regulations. Waste oil that has a high fuel content is effectively used to fuel boilers. MOL continues to reduce incineration of waste oil through proper disposal and effective use.



Waste oil incinerator

### **Processing Bilge Water**

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

### **Onboard Waste Disposal**

Since seafarers spend all their time on board a ship, they generate the same type of garbage as a household, plus various waste unique to ships, such as loading and packing materials. On MOL-operated vessels, we established onboard waste management plans that require collection, separation, storage, and disposal of onboard waste based on

the MARPOL73/78 treaty\*. Waste management officers supervise this process, and work to build awareness of the need for proper waste disposal among officers and crew members. Food waste and other biodegradable trash are finely ground and disposed of in specified areas of the open sea, and plastic waste is disposed of appropriately on land.

#### Proper disposal of bilge water



\* MARPOL73/78 treaty

(International Convention for the Prevention of Pollution from Ships 1973 as modified by the protocol of 1978 relating thereto)

The international treaty to prevent marine pollution, known as the MARPOL Treaty. The treaty sets technical standards, such as vessel structures and anti-pollution equipment, with the express objective of preventing marine pollution. Japan ratified the treaty in 1983.

## Approaches to Prevention of Air Pollution

Vessels operated by burning fossil fuels such as A oil and C oil, generates carbon dioxide (CO<sub>2</sub>), nitrogen oxide (NOx), sulphur oxide (SOx), and soot and smoke. CO<sub>2</sub> is a cause of global warming, and NOx and SOx contribute to acid rain. The MOL Group is thoroughly aware of the environmental burden created by its business activities, and takes a proactive, ongoing approach to preventing air pollution.

#### Transition of MOL NOx Emissions



Total emission volume

Emission per unit load (ton-mile) (compared to FY2001)

### Transition of MOL SOx Emissions



Total emission volume

Emission per unit load (ton-mile) (compared to FY2001)

### Fuel Oil Analysis at the MOL Technology Research Center

One of the main activities of the MOL Technology Research Center (Tokyo, Japan) is analyzing the characteristics and controlling the quality of fuels for vessels operated by MOL all over the world. Every time our ships procure fuel, a sample goes to the center, where researchers measure its sulphur content by X-ray analysis equipment and conduct other tests to ensure that it meets our standards for environmental protection, safe operation, cost control, and prevention of damage to vessel engines.

Transition of Sulphur Content in MOL-Use Fuel Oils

A Oil	C Oil
0.77%	2.75%
0.73%	2.60%
0.68%	2.71%
0.62%	2.78%
0.56%	2.82%
	0.77% 0.73% 0.68% 0.62%

### Marine Transport and Acid Rain Issue

Combustion of fossil fuels such as A oil and C oil that are used as vessel fuel generates nitrogen oxide (NOx) and sulphur oxide (SOx) as well as carbon dioxide (CO<sub>2</sub>). Precipitation (rain and snow) in which NOx and SOx are dissolved in the drops is called acid rain.

In September 1997, the MARPOL73/78 Treaty Annex VI (regulations for preventing air pollution from vessels) for NOx and SOx emissions from vessels was adopted at IMO, and took effect May 19, 2005.

Other regulations regarding the use of low-sulphur fuel oil are to be issued in European (Baltic Sea, North Sea) and in the U.S. California coastal area (some of them are already in effect). MOL has formed a cross-sectional task force involving relevant divisions to confer about the company's response.

#### IMO MARPOL73/78 Treaty Annex VI, Regulations for NOx and SOx Emissions

	NOx		SOx
Regulatory item	Diesel engines over 130kW output on vessels built after January 1, 2000		All fuel oils used on vessels
	17g/kWh	Rated speed below 130 rpm	Fuel sulphur content limited to 4.5% (as of May
Regulation value	45xn <sup>-0.2</sup> g/kWh	Rated speed between n=130rpm and 2,000rpm	19, 2005). However, for vessels operating in the Baltic Sea, fuel sulphur content will be limited to 1.5%, or they must be equipped with exhaust gas
	9.8g/kWh	Rated speed over 2,000 rpm	desulphurization equipment (as of May 19, 2006).

#### Regulations for Low-Sulphur Fuel Oil in European Regions

Target sea areas		Content of regulations	Effective date	
Baltic Sea (east of northernmost Denmark)		Sulphur content limited to 1.5%	May 19, 2006	
North Sea (east of southernmost	Within 12 nautical miles of coastal area	Sulphur content limited to 1.5%	August 11, 2007	
U.K. and France's Bretagne Peninsula)	All targeted sea areas	Sulphur content limited to 1.5%	November 22, 2007	
	Within its territorial waters and within		January 1, 2007	
California State coastal areas	24 nautical miles from the base line	Gas oil or marine diesel oil of sulphur content limited to 0.1%	January 1, 2010	

### **MOL's** Approaches

Reduction of fuel oil consumption contributes to reduction of NOx and SOx emissions, as is the case with CO<sub>2</sub> and other exhaust gases. So MOL takes various countermeasures to reduce the consumption of fuel oil (please refer to page 7).

#### **Measures to Reduce NOx**

In advance of the MARPOL73/78 Treaty Annex VI, MOL began using engines that conform to its standards for vessels launched after January 1,2000. We are also working to optimize engine conditions such as adjustment of fuel oil injection timing, and developing an exhaust gas post-treatment system. In addition, the company is moving to adopt electronically controlled engines that more effectively reduce NOx and soot/smoke emissions.

### Measures to Reduce SOx

Generally, C oil used as vessel fuel has relatively higher sulphur content. Based on our own quality standards, we generally procure oil that has sulphur content well below the regulated value of 4.5%.

Mid-term plan (FY2004–2006)	Protecting air quality			
2005 targets	Achievements	Evaluation	2006 targets	
Reduce CO <sub>2</sub> , NOx, and SOx emissions per unit load	<ul> <li>NOx emission per unit load increased by 0.1% from FY2004. SOx emission per unit load increased by 1.5% from FY2004 because of increase in average sulphur content volume in C oil</li> </ul>	Δ	Reduce CO <sub>2</sub> , NOx, and SOx emissions per unit load     Continue to study adoption of lower sulphur	
Study adoption of low-sulphur fuel oil	Adopted equipment suitable for low-sulphur fuel oil on some vessels in advance of European reguations	0	fuel oil	
Standardize use of R-404A as refrigerant for all onboard refrigeration and air conditioning systems	Adopted on all vessels launched during term	0		

### Protection of the Ozone Layer

### **Equipment on Vessels**

Chlorofluorocarbons (CFCs) were conventionally used as refrigerants for equipment such as air conditioning and refrigeration. MOL was using R-22 (HCFC) which has a relatively small ozone depletion coefficient. However, after taking a comprehensive look at the environmental impact, refrigeration performance, and supply stability, the company began using R-404A, which has an ozone depletion coefficient of zero in 2002, and since then has adopted it for all newly built vessels.

MOL has already replaced the onboard fire extinguishing systems that used halon with carbon dioxide devices. Recently, the company has expanded the use of high-expansion foam fire extinguishers.

#### **Reefer Containers**

MOL adopted reefer containers that use R134a, which has an ozone depletion coefficient of zero, starting in 1995. The company completed replacing reefer containers using R-12 refrigerant (ozone depletion coefficient of 0.9) with R-134a containers in 2003.

### Approaches to Energy Conservation

The MOL Group takes various measures to conserve energy aboard vessels and in container terminals.

#### **Energy Conservation on Vessels**

The pure car and truck carrier (PCTC) *Euphony Ace*, launched in November 2005, features a design that reduces wind/water resistance. It's also equipped with solar panels on the garage deck as well as a double-layer fuel tank, power generation exhaust gas purification system (please refer to pages 32-33 for details). The solar power generation capacity is 10kW, which is equal to 250 fluorescent lamps. Generated electricity is used for illumination on the cargo deck of the vessel. What's more, to reduce the temperature of the garage deck in sunny summer weather, it is coated with insulated paint (foam urethane). This increases air conditioning efficiency to further save energy. Thus, *the Euphony Ace* is the ultimate eco-ship integrating various energy-saving technologies.

### **Energy Conservation at Container Terminals**

MOL Group company International Container Terminal Co., Ltd. in Tokyo (TICT) operates the Tokyo Bay Ohi container wharf berths No.3 and 4, which are leased from the Tokyo Port Terminal Corporation through MOL. MOL and TICT are installing solar panels (generation capacity: 200kW) on roofs of the No.4 berth gate and adjacent container washing facility in a tie-up project with the New Energy and Industrial Technology Development Organization (NEDO). This work is slated for completion in January 2007. The system is expected to generate more than 20% of the terminal office's annual power needs. MOL Group positions this terminal as an "Eco Terminal" and will continue to enhance its environmental friendliness in the future.

### About the Ozone Layer

The ozone layer (O<sub>3</sub>) is the layer between about 10 km and 50km above ground. It absorbs much of the hazardous ultraviolet (UV) radiation that leads to skin cancer, cataracts, and immune system problems in humans and various animal species. Research indicates that this precious ozone layer is being destroyed by substances such as freon used as a refrigerant in air conditioning systems and refrigerators, and halon used in fire extinguishers. Ozone depletion became an issue in the late 1970s. Once these substances are emitted in the environment, they penetrate to the stratosphere, and freon irradiated by strong UV rays generates chlorine, which destroys the ozone layer.

	Туре	Name of refrigerant	ozone depletion coefficient	Global warming coefficient	Remarks
	CFC	R-12	0.9	8,500	Stopped production in 1995
	HCFC	R-22	0.055	1,700	Production will be stopped in 2020
		R-134a	0	1,300	Single refrigera- tion
	HFC	R-404A	0	3,260	
		R-407C	0	1,770	Mixed refrigera- tion
		R-410A	0	1,730	



Euphony Ace



Gate 4 at International Container Terminal Co., Ltd. in Tokyo (TICT) Tokyo Bay Ohi Container Wharf

## Approaches to Environmental Technologies

MOL supports research and development related to vessels, and proactively develops and adopts technologies that boost energy efficiency and increase safety and reliability.



Courageous Ace



Utopia Ace



Vessel speed

\* IMO 54th Marine Environmental Protection Committee in March 2006 adopted a proposal that vessels contracted for construction after August 1, 2007, shall be equipped with double-hulled fuel tanks.



### Reducing Wind Resistance to Improve Energy Efficiency

The shape of conventional car carriers makes them more susceptible than other ships to wind resistance and a phenomenon called "leeway," in which the wind pushes the vessel from the side. Naturally, that reduces fuel efficiency. MOL teamed up with Universal Shipbuilding Corp. and Osaka University to develop a car carrier with a wind resistance reducing design. We launched this innovative pure car and truck carrier (PCTC), called the *Courageous Ace*, in March 2003. By reducing the wind resistance from the bow with an aerodynamically rounded and beveled bow line and having wind channels along the sides at the top of the garage deck, the vessel can maintain a straighter course than before. [It captured the 2003 "Ship of the Year" award from the Society of Naval Architects of Japan (SNAJ).] Shortly after we launched wind/water resistance reducing design PCTCs with various modifications.

The *Utopia Ace*, launched in July 2004, features a hyper-slim energy-saving design under the waterline, reducing resistance by 8% compared to a conventionally designed vessel. Additionally, the ventilation covers on the shipside decks feature aerodynamically rounded sides, to further cut wind resistance. This *Utopia Ace* received the Ship of the Year Award 2005 from Lloyd's Register in the U.K. in February 2005.

### **PBCF Maximizes Engine Power**

A ship's propeller moves the vessel by changing rotational energy into propulsion energy. Since water is twisted when the prop rotates, a vortex always occurs behind the propeller. This results in energy loss in the propulsion of the vessel. The MOL-developed Propeller Boss Cap Fins (PBCF) has the same number of fins as propeller, and is installed at the rear of the propeller hub. The PBCF is capable of enhancing propulsion efficiency by effectively



MOL's unique PBCF increases vessel speed.

breaking up the strong hub vortex. The result is a 4-5% improvement in fuel efficiency (which also reduces CO<sub>2</sub>, NO<sub>x</sub>, and SO<sub>x</sub> emissions) at the same speed. Since development started in 1987, all types of vessels worldwide have been fitted with the PBCF system. The accumulated number of vessels ordered PBCF system topped 1,000 in January 2006.

### Prevention of Oil Spills in Case of a Collision or Accident

MOL formulates comprehensive measures for safe vessel operation. Well in advance of regulatory requirements\*, we have already introduced ships designed to minimize the risk of marine oil spills, even in case of a collision or grounding.

#### Containerships

A large-scale containership generally stores nearly 10,000 tons of fuel oil in tanks at the bottom of the hull. On our containerships launched after 2003, the risk of an oil spill is reduced significantly by storing about 60% of the fuel in tanks built into the walls between cargo holds. What's more, MOL plans to adopt double-hulled fuel tanks for 100% of the fuel on all 8,100 TEU containerships launched after 2007.

Mid-term plan	(FY2004–2006)
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Study and adopt technologies to enhance energy efficiency, improve safety, and prevent oil spills

2005 targets	Achievements	Evaluation	2006 targets
Launch six (6) wind/water resistance reducing design     car carriers	Launched six (6) car carriers	0	Launch (2) wind/water resistance reducing design car carriers
Study introduction of electronically controlled engines	Decided to adopt on six (6) containerships and two (2)     VLCCs	0	Encourage introduction of electronically con- trolled engines     Encourage use of PBCF
Increase the number of vessels equipped with PBCF	<ul> <li>Implemented survey of possibility to adopt PBCF on ves- sels operated by the MOL Group including tankers and chartered vessels. Implemented internal briefing sessions</li> </ul>	0	<ul> <li>Redesign exhaust gas purification system</li> <li>Launch two (2) car carriers and five (5) tankers with features to prevent oil spills</li> <li>Adopt technologies to reduce use of cylinder oil</li> </ul>
Launch six (6) car carriers and four (4) tankers with     features to prevent oil spills	• Six (6) car carriers and four (4) tankers entered service	0	Continually study fuel additives
Study exhaust gas purification system	Conducted onboard tests of technology to collect particulate emissions using tree oil. Gathered information on other technologies.	0	
Study adoption of technologies to reduce use of cylinder oil	Gathered information on Sulzer engine lubrication system     Replaced equipment on two vessels	0	
Study fuel additives	<ul> <li>Implemented trial use of additive (Lubricon) on car carriers, accumulated data, and implemented trial use in land-based loading/discharging equipment and ferries</li> </ul>	0	

#### **Car Carriers**

Car carriers normally have more than 10 decks to hold automobiles. Fuel tanks used to be placed under the lowest car deck, but on the car carriers MOL launched starting in 2004, the tank is placed where the lowest car deck would normally be, in effect creating a double hull.

### Large-Size Tankers (VLCCs)

All tankers built after July 1996 must have a double-hull structure to prevent cargo (crude oil, etc.) from leaking in the event of a collision or grounding, according to the revised MARPOL Treaty (International Convention for the Prevention of Pollution from Ships), which took effect in 1992. All MOL double-hull VLCCs launched after May 2005 have double-hulled fuel tanks as well.

### Approaches to Soot/Smoke and Dust Purification

Diesel engine exhaust gas contains soot and dust such as diesel emitted particulate (DEP). The MOL Group works hard to procure high-quality fuels, and undertakes the following measures to reduce emissions.

The MOL Group ship management company M. O. Ship Management Co., Ltd. jointly developed an exhaust gas purification system for power generator engines, using the catalytic effects of tree oil extracted from timber harvested during forest thinning operations. This technology, developed jointly with Hiroshima-based Juon Co., Ltd. relies on a purification system installed inside the exhaust pipe

of the diesel engine. Tree oil, a bio-catalyst extracted from thinned timber using a method patented by Juon, is sprayed into the exhaust gas. The tree oil significantly increases the efficiency of the filter, allowing more particulate material to adhere to the filter. This greatly reduces emissions of soot and smoke. This system is installed aboard the PCTC *Euphony Ace* (please refer to page 31) launched in November 2005. In addition to protecting air quality, the system makes effective use of thinned timber – an environment-friendly approach that helps protect forests.





#### Exhaust Gas Purification System



## Initiatives in the Office

The MOL Group carefully considers ways to optimize working conditions and uses various approaches to reduce the environmental burden generated by office operations.

#### Transition of Electricity Use



### Water Sprinkling Campaign

Joining in the Nationwide Water Sprinkling Campaign, MOL implemented water sprinkling out-of-date emergency drinking water on streets around the Head Office in Toranomon, Tokyo, on August 10, 2005.



#### **MOL Joins Black Illumination 2006**

The MOL Kobe building joined Black Illumination 2006, a part of a nationwide "Light Down" and CO<sub>2</sub> reduction campaign, and the building's illumination was turned off on the night of June 18, 2006.



MOL (Kobe) building (when illumination is turned on)

### Reduction of Electricity Use

Through the in-house e-mail magazine and other ways, MOL urges employees to turn off lights during lunch breaks and when leaving the office, and encourages them to always turn off unneeded lights, by posting stickers saying "Turn off the lights in empty rooms!" in all guest and meeting rooms of the Head Office. Thanks to these low-key efforts and the effects of replacing the air conditioning system in the computer room with energy-efficient equipment in April 2004, the company reduced electricity use during FY2005 by 20%, compared to FY2003.

### **Reduction of Office Paper Use**

The company purchased integrated copying machines that combine printers and facsimiles and upgraded document control software to achieve the target of reduced office papers consumption in the Head Office, compared to the previous year. The CSR and Environment Office also has a paper "distribution center" to encourage Head Office employees to use both sides of paper. This small step helped decrease paper use during FY2005 by 0.1% from FY2004 in spite of increased business operations.





#### Initiatives in the Overseas Office

The independent MOL Group Environmental Target System (please refer to page 25 for details), is deployed in four major overseas subsidiaries as well. MOL Liner Division's subsidiary in Asia, Hong Kong-based MOL (Asia) Ltd., is one of them. Setting the target to reduce office paper use by 1% from the previous year, the Hong Kong



MOL (Asia) Hong Kong Offce staff in charge of environmental efforts: Queenie Lo (left), Mac Wong (center), and Edith Chung

office has made steady efforts such as two-sided printing and use of back sides of paper. They also reduced paper consumption by introducing the E-Flow System that integrates office supply purchase, transport expense settlement, and document control system with electronic media, in 2005. In all, they accomplished a 5% reduction of office paper use from 2004.

### Activities of "Team Minus 6%"

MOL participated in "Team Minus 6%," a national campaign to prevent global warming, promoted



by the Global Warming Prevention Headquarters in August 2005. Team Minus 6% aims to prevent global warming by accumulating six daily actions at home and in the office. The company proactively develops this campaign in the office. Following are some examples:

### **Temperature Adjustment**

The "Cool Biz" casual dress code adopted from June to September allows the air conditioning to be set at a higher temperature, saving energy.

#### **Stop Excessive Packaging**

The company purchased "Mottainai bags," a product of the Green Belt Movement, and distributed them to the participants of the beach cleanup project (please refer to page 46 for details) in May 2006.

## **Environmental Accounting**

MOL quantitatively determines investments, costs, and savings related to environmental protection in business activities, to ensure the most efficient approaches to environmental protection. The company began disclosing this environmental accounting with the Environmental Report 2001 to inform stakeholders of our activities.

### FY2005 Environmental Accounting

Scope of calculation: Environmental activities in the MOL Head Office and on MOL-operated vessels Period of calculation: FY2005 (From April 2005 to March 2006)

(However, depreciation of environmental investments and economic benefits after FY2000 are included in the costs and economic benefits of environmental measures.)

Reference guidelines: Ministry of the Environment "Environmental Accounting Guidelines (2002)"

### Investment and Costs of Environmental Measures

Environmental investments increased significantly compared to FY2004, due to investments to install exhaust gas purification systems and solar panels on car carriers, introduce environmental e-learning, in addition to investments and costs of other environmental measures such as mounting of PBCFs (please refer to page 32 for details) and installation of exhaust gas ecomizer.

Volume of Investment and Costs of Environmental Measures (Unit: ¥million)							
Measures	Category of Ministry of the	FY2003 Achievements		FY2004 Achievements		FY2005 Achievements	
	Environment Guidelines	Investment	Cost	Investment	Cost	Investment	Cost
Vessel related							
<ul> <li>Recoat ship bottom paint (incl. sand- blasting*1)</li> </ul>	Cost for environmental protection	0	348	0	263	0	40
• Equip vessels with PBCF	Cost for environmental protection	55	12	57	15	47	30
• Exhaust gas economizer*2	Cost for environmental protection	2,274	245	485	291	821	385
Other vessel-related invest- ment	Cost for environmental protection	160	10	201	24	366	63
Office related	Cost for resources recycling	6	0	26	2	26	11
R&D cost	R&D cost	29	19	8	31	0	30
Expenses for environmental management, and social contribution	Cost for management activi- ties, cost for social activities	0	122	0	259	0	261
Total	2,524	756	777	885	1,260	820	

### **Economic Benefits of Environmental Measures**

The economic benefits in FY2005 increased as a result of accumulated effects of introducing vesselrelated energy-saving technologies, and to some extent by skyrocketing bunker prices,

Economic benefits of Environmental Me		(Ur	nit: ¥million)		
Measures	Effects	FY2003	FY2004	FY2005	
Vessel related					
Equip vessels with PBCF	Reduce fuel oil (reduce CO <sub>2</sub> /NOx/SOx)	584	841	1,506	
Exhaust gas ecomizer	Reduce fuel oil (reduce CO <sub>2</sub> /NOx/SOx)	1,384	2,355	3,989	
Other vessel-related investment	Reduce cylinder oil	28	98	249	
Office related					
Resource conservation     (reduction of electricity and water consumption)	Reduce electricity use	0	5	0	
Total		1,996	3,299	5,744	

### Support System of Environmental Measurement Technologies

Since MOL adopted a strict profit control system by division, some cases showed that relevant sales divisions hesitated to introduce environmental measurement technologies that have little economic benefit. However, the company considers it indispensable to promote introduction of these technologies in light of the huge environmental issues facing the world, and is determined to bear some additional investment and costs when certain technologies, which meet certain requirements, are introduced. This is called the Support System of Technologies for Environmental Measures.

Over ¥1.4 billion in technology introductions have already been funded since its introduction in November 2004. MOL continues using this system to promote introduction of more practical environmental technologies.

(Assumption)

- 1. Exchange rate for FY2005 is average rate set by the company during FY2005: ¥112.29/US\$
- Investment and costs concerning safe operation are not included in the chart at left.
- Additional investments associated with wind/water resistance reducing design occurred, although it was not included in chart on the left because of difficulty in calculation of additional vessel prices in along with changes of specifications.
- 4. The company implemented work to make double-hull fuel tanks for four tankers and six car carriers launched during FY2005 as our voluntary approaches, although it was not included in the chart on the left because of difficulty in calculation of the investment.
- MOL launched six double-hulled tankers during FY2005, but the costs are not included in the left chart, because it is based on legal requirements.
- 6. Other vessel-related investments include the bilge separator and the cylinder lubrication system (which reduces oil consumption in the main engine cylinders), electric-powered anchor winches (preventing oil leakage from hydraulic lines) which were introduced before FY2005, and exhaust gas purification systems, garbage disposal units, solar power generation, insulation foaming agents, and fuel additives, which were introduced in FY2005.

#### \*1 Sandblast

Removal of rust and paint by spraying sand particles at the hull surface. This helps boost efficiency effect.

\*2 Exhaust gas economizer

A system that collects and uses exhaust gas from main engine as steam, reducing energy consumption.

#### (Assumption)

- Vessel-related economic benefits (cost reduction) is mainly the effect of fuel cost reduction.
- Economic benefits by replacement with ship bottom antifouling paints (sandblasting including T/F paint) is not assumed.
- Cost reduction of ¥84 million in fuel expenditures for six car carriers featuring a design that minimizes wind and water resistance (launched during FY2005) is not included.
- The company reviewed the effects and revised some of them retroactively.

## **Approaches at Group Companies**

The MOL Group makes serious efforts to continually reduce its environmental burden, through MOL EMS21 and the Group Environmental Target System, in line with the MOL Group Corporate Principles and MOL Group Environmental Policy Statements.



Nippon Maru

#### Mitsui O.S.K. Techno-Trade, Ltd **Environmental Policy Statements**



- 1. MOTech makes environmental protection our top priority in providing maintenance engineering services for storage vessels and facilities at the national oil storage base in Shirashima, offshore from Kitakyushu City, Fukuoka Prefecture
- 2. We also make environmental protection our top priority in ensuring safety and environmental protection in supplying fuel oil to vessels both in Japan and overseas.
- 3. We strive to expand our sales of energy-saving, wastereducing products and develop new environment-friendly products and materials



Try-R Kobe plant

### Efforts to Reduce Environmental Burdens aboard Cruise Ships

Mitsui O.S.K. Passenger Line, Ltd. http://www.mopas.co.jp/

Mitsui O.S.K. Passenger Line (MOPAS) operates the cruise ship Nippon Maru, which acquired ISO14001 certification for its cruise services. Besides reduction of the environmental burden associated with ship operation, a major challenge for the Nippon Maru is to reduce the environmental burden peculiar to cruise ships. Because up to 600 passengers are aboard the ship, their cooperation is indispensable for environmental measures.

Recently, first-class hotels have started posting messages asking for cooperation in environmental efforts in their guest rooms. MOPAS has used its onboard newsletters to request cooperation for simple packaging at onboard shops and reduction of the environmental burden related to other services. Last year, a revised onboard video guide was introduced, featuring a crew member asking passengers for their cooperation in MOPAS environmental efforts. As a result, passengers have become more accepting of the company's requests.

## Creating Environmental Policy Statements: Aiming to Be a Company that Contributes to the Environment

#### Mitsui O.S.K. Techno-Trade, Ltd. http://www.motech.co.jp/

MOL Group technology trading company Mitsui O.S.K. Techno-Trade (MOTECH) is active in a broad range of businesses, especially vessel related activities. MOTECH promotes the sale and adoption of PBCFs (Please refer to page 32 for details), supplies vessel equipment and components, materials, fuels, and lubricants, and installs and maintains industrial equipment. Other activities include real estate sales and sales of gardening and environment-related materials.

In addition, utilizing its experience in vessel management services, MOTECH helps with maintenance engineering for eight oil reserve vessels (700,000 kiloliters/vessel) anchored at the Shirashima National Oil Storage Terminal offshore of Wakamatsu in Kitakyushu City. Entrusted with the operation from Shirashima Oil Storage Co., Ltd., which undertakes operation, engineering maintenance, safety, and disaster prevention of oil storage facilities, MOTECH set forth environmental policy statements and positions environmental protection as the most important requirement when executing operations. The company takes a strict approach to preventing accidents and spills of paint and other materials into the ocean, and carefully collects, separates, and disposes of industrial waste resulting from its operations.

## Promoting Beverage Can Recycling to Create a Recyclable Society

### Kusakabe Maritime Engineering Co., Ltd.

Kusakabe Maritime Engineering's main business is marine construction, but it moved in another direction - toward creating a recyclable society - by establishing the "Try-R-Kobe" can recycling plant in May 2004.



Can press

Commercial recycling of aluminum

pellets (right) and steel pellets
Mid-term plan (FY2004-2006)

Encourage environmental protection activities at domestic Group companies and overseas subsidiaries. Efforts on Group environment business

2005 targets	Achievements	Evaluation	2006 targets
Encourage response to modal shift, give other support of Group companies' environment business, and offer information	Supported sales of PBCF. Explained outlines of the revised Energy Saving Law (Promote modal shift)	0	<ul> <li>Encourage environmental measures in container terminals and logistics warehouses</li> <li>Respond to revised Energy Saving Law/ revised law on global warming measures</li> <li>Develop response to modal shift</li> <li>Support environmental business and offer information</li> </ul>

Compressed blocks of steel and aluminum beverage cans, collected by community, corporate, and private recycling programs are broken down into pieces and heated in a rotary kiln that uses new technologies to eliminate paints and coatings on can surfaces, and annealed. Then, high-quality steel pellets and aluminum pellets are collected through granulators and magnetic separators. All these pellets are high-quality products. Steel pellets are used as refrigerant for steelmaking and materials for cast metal, and aluminum pellets are used as a deoxidizing agent for steelmaking and as materials of secondary aluminum alloy.

Clean-burning city gas is used to fire the plant, so CO<sub>2</sub> emissions are reduced by about 60%, and combustible gas collected in the kiln is further circulated in complete combustion. Thus the plant has a minimal environmental burden, and meets the needs of today's environment-friendly society.

## Managing an Environment-Friendly Office Building

#### Daibiru Corporation http://www.daibiru.co.jp/

Daibiru Corporation, the MOL Group's core real estate business, sets forth rules of conduct concerning environmental protection, contributes to an energy-efficient and recycling society with advanced office buildings, and promotes harmonious coexistence with the environment. Daibiru addresses the following environmental aspects in current renewal work at the MOL Head Office building in Tokyo's Toranomon district:

- Expand greenery areas on lobby floor and around entrance
- Reduce waste of electricity by introducing daylight sensors and human motion detectors
- Zoned air conditioning temperature control function
- Use rain water for flushing toilets

## Promote Reuse of Secondhand Containers

 Seven Group Companies
 http://www.container-shop.com/

 Sea-Road Express Corp., Marine Container Sales Co., Ltd., Sanwa Marine Ltd., Chukyo Maintenance Co., Ltd.,

 Mitsui O.S.K. Lines (Japan) Kyushu Branch, Shoko Engineering Ltd., Chugoku Shipping Agencies Ltd.

Containers MOL uses for shipping are manufactured to meet International Standards Organization (ISO) requirements for durability and resistance to shock, vibration, wind, and weather on land and sea, as well as loading and unloading, and transport. At the end of their useful service lives at sea, containers are phased out of marine transport. However, even after they can no longer be used at sea, they are perfectly suitable for various applications on land. They are sturdy, watertight, easy to refurbish, and inexpensive, and are ideal for storage units, garages, offices, shops, and even living spaces. MOL sells these secondhand containers through seven domestic Group companies, making effective use of valuable resources.



MOL Head Office Building



Secondhand container used to store emergency supplies



Used container turned into a gardening store

MOL responds proactively to communication opportunities and provides complete, straightforward information to stakeholders.



Foreign institutions and individuals

Japanese individuals 📃 Japanese banking institutions

Other Japanese financial institutions





#### Number of Accesses to IR Web Site



## Building Better Relationships with Shareholders and Investors

In order to obtain the understanding of shareholders and investors, the company works to execute transparent operations by disclosing information on a timely basis, appropriately, fairly, with the president taking an initiative and responsibility for investor relations (IR). The company believes that returning profits directly to shareholders through dividend payments is a key management policy. MOL will continue to base dividends on a payout ratio of 20%, and will address the need to increase the ratio under our mid- and long-term management policies.

### **Communication with Shareholders and Investors**

MOL emphasizes the following points in communicating to shareholders and investors.

- Communication based on the mid-term management plan
- Specify the tasks to be accomplished, explain them, and increase the level of information disclosure
- Cordially explain to investors who say "The ocean shipping industry is hard to understand"

MOL set "growth" as the theme of MOL STEP, and carefully explains the steady mid- and long-term growth of the shipping industry, along with the effects of market cycles, using the word "cyclical growth" and charts illustrating other concepts. The company has also restructured its business segments, dividing ocean shipping operations into containerships and bulkships to disclose detailed business results, and goes to great effort to explain changes by segment. And of course, MOL conforms to Securities Exchange Laws and timely disclosure rules and regulations set by the stock exchanges the company is listed on.

## **Communication Opportunities**

MOL holds the Annual General Meeting of Shareholders on a different date from most companies, allowing more shareholders to attend and participate (on June 22, 2006 for FY2005). What's more, the company holds small meetings in addition to briefing sessions to explain quarterly results to institutional investors. The company also makes presentations in briefings for individual investors and provides online information and updates via cellular phone. Thus, MOL works proactively to provide better communication for a broad range of shareholders in Japan and overseas to build their trust and understanding.

### **Evaluations from Outside the Company**

### Special IR Prime Business Award

(sponsored by: Japan Investor Relations Association)

This special award is presented to companies that have received the IR Prime Business Award three times. MOL won the award in 2001, 2004, and 2005. **Nikkei Award for Annual Report** (sponsored by: *Nihon Keizai Shimbun*)



Special IR Prime Business Award logo

MOL took excellence award in the Nikkei Annual Report Awards in FY2005, following the best award in FY2004.

**Disclosure Excellent Company Award** (sponsored by: Security Analysts Association of Japan) It was the second consecutive year MOL was rated in the top rating of the transport sector on corporate disclosure by the Security Analysts.

## **Customer Relations**

Many different parties are involved in ocean transport service. MOL recognizes its own roles and works hard to build teamwork and meet diversified customer needs.

#### Meet Various Customer Needs

The MOL Group Corporate Principles state: "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." Our group seeks to achieve this principle every day – grasping customer needs, and devising innovative ways to meet them. MOL runs an ocean shipping business, but today's customer needs cannot be covered only by ocean transport. Door-to-door and point-to-point transport arrangements, which combine with on-land transport such as railroad and trucks, in addition to our basic business, ocean transport from port to port, become everyday services for MOL. Traditionally, we transported cargo based on customer requests, taking it from point A to point B. But now we try to propose different options that will save our customers time and money, for example, offering more economical transportation route, proposing other discharging ports for time-efficiency. In addition, customer needs are very broad, and concerned with overall logistics. The company considers needs from both software and hardware aspects, such as just-in-time delivery from a shipment site to a consignee, and development of warehouse and information networks to precisely track cargo. MOL helps customers establish effective logistics networks.

## **Anticipating Customer Needs**

Looking back at the MOL Group's shipbuilding history, the company embraced customer needs like launch of Japan's first specialized carrier for completed cars and dry bulk cargoes\*<sup>1</sup>. Another milestone is the development of Cape-size bulkers – 150,000 to 170,000 DWT\*<sup>2</sup> carriers have become the mainstream in Cape-size bulkers transporting iron ore. In 2004, MOL started to construct custom-made ion ore carriers of 200,000 DWT, 230,000 DWT and 300,000 DWT to meet needs of specific customers. This came about when our sales division acted on information they got through daily contact with customers. After that, the sales and technical divisions repeatedly visited shipbuilding companies and customers in Japan and overseas, executed on-site field surveys at loading and discharging ports, researched the optimum type of vessel based on their future trade forecasts, made the proposal to the customers, and eventually made it a reality. The company believes intangible services such as offering information and a human touch through the personality of salespersons are critical to seizing these kinds of opportunities. MOL continues to enhance both internal and external communication to thoroughly grasp customer information and develop innovative solutions to their needs.

\*1 Specialized carriers for completed cars and dry bulk cargoes MOL launched the Oppama Maru, the first specialized carrier to have the cars driven directly onto the ship via a ramp. Until then, cars had to be lifted onto ships by cranes.



Oppama Maru

\*<sup>2</sup> Deadweight Tonnage (D/W, DWT) Tonnage of cargo the vessel can load

## Caring for Land-Based Employees

The MOL Group recognizes that employees are the real power behind any business. We go to great lengths to develop world-class specialists through unique training and education programs.

#### Concept of Employees' Basic Capabilities



Dialogue skills Adaptation to different cultures Open mindedness

New employee training



with teacher (left) of language school

## Basic Policies on Employment and Education

MOL is determined to push forward to become an "excellent and resilient group that leads the world shipping industry." Its driving force is employees, in other words, "human resources." Leadership to govern the entire Group of over 300 companies around the world, communication ability for smooth cooperation with business partners and customers and other concerned parties in Japan and overseas, initiative to compete and win in today's global market, and toughness to go forward to achieve our targets – we demand these four requirements in addition to solid business skills.

## Human Resources Development Programs

A career-track (non-clerical) employee's first 10 years in the company is considered a cultivation period. During this time, employees are rotated into different jobs, usually around three, to experience various workplaces and operations. Along with on-the-job training (OJT), MOL provides other training systems, such as position-specific group training, overseas training, language instruction, and onboard training that only a shipping company can offer, and outside training such as coaching programs. Furthermore, the company offers correspondence courses for personal development.

#### Outside training Common Correspondence courses New and young employees General Manager Senior Assistant Assistant Manager Manager Group Leader 6th 3rd/4th training year training Senior assistant training Position-specific training Assistant manager training Manager training Group leader training General manager training Logical thinking course Leadership course Functional training Management by Objective (MBO) coaching course Executive training Management school Short-term study programs/ Internships Overseas training Practical training OA and PC / Logistics / Financial accounting / Legal and Insurance / Employee evaluation / Mental health, etc. Onboard training Onboard training New employee building English language proficiency / English, Chinese language course / Global business skills Others

#### **Training Programs**

## New Employee Training

MOL hires about 20 land-based employees every year. During new employee training, which lasts a month and a half, the company focuses on on-site operation and plans a unique menu including field trips to branches at ports, vessels, and shipyards.

## Developing Global Businesspeople (Intensive English-Language Program, Short-term Overseas Study, Practical Overseas Training, and Language Courses)

MOL provides English-language intensive programs, a half year after employees join the company, to increase language skill and develop the capability to communicate globally, which is indispensable for the worldwide ocean shipping business, and improve communication skills with non-Japanese. Our company also helps cover the costs for employees who want to learn languages other than English through correspondence courses. In addition, the company arranges various opportunities such as

Mid-term plan (FY2004-2006)

Aim at MOL where employees work at fair and rewarding jobs

2005 targets	Achievements	Evaluation	2006 targets
<ul> <li>Extended introduction of new personnel system to all land-based employees other than clerical workers</li> <li>Implement employee satisfaction survey</li> </ul>	<ul> <li>Introduced the new salary system to managers and assistant managers</li> <li>Implemented employee satisfaction survey</li> </ul>	0	<ul> <li>Introduce employment of retirees</li> <li>Examine ways to upgrade clerical workers' operations and study introduction of a new salary system for them</li> <li>Enhance training (including human rights training) and training facilities</li> <li>Consider introduction of short-term working hour system</li> <li>Examine ways to improve work life balance</li> <li>Deepen communication with employees</li> </ul>

practical overseas training (North America, Europe, and Asia), short-term overseas academic study, and language courses, to foster global viewpoints early in employees' careers.

## Learn about Vessels and Ports (Onboard Training)

MOL's business takes place aboard vessels, so learning about vessels is indispensable for ocean shipping professionals. Onboard training is provided for about 15 employees a year, who experience a vessel voyage lasting from several days to a month. The goal is to promote understanding of safe operation, and the marine environment and build mutual understanding and cooperation with seafarers.

## **CSR-Related Education**

## (Compliance, Human Rights, Environmental Education, etc.)

The company offers compliance training covering issues such as antimonopoly laws and prevention of insider trading, human rights training, and environmental training using e-learning.

FY2005 Number of Environmental Education Trainees				
Types of training FY2004 FY2005				
New employee training	18	32*		
Senior assistant training	33	34		
Assistant manager training	41	35		
Manager training	26	33		
Group leader training	0	25		

\* Including 16 career employees

## Creating an Energetic Company

One unique characteristic of MOL is that employees actively and seriously debate issues without regard to rank, at various places such as section, group, and division meetings, "Can-Do" meetings with the President (Please refer to page 50 for details), and cross-sectional brainstorming sessions. This openness is part of our corporate culture, and employees refer to each other as "Mr.," "Ms.," and so on, rather than using position titles.

## Personnel System and Evaluation System

MOL realizes that it is important to motivate and energize employees, who are the company's most important management resource. In FY2005, the company introduced a new salary system, based on results and responsibilities, for managers and lower-positioned employees. This followed a similar move for higher level management personnel introduced in FY2004. Establishment of a "fair and transparent evaluation system" is critical for such a personnel system. Managers and their subordinates set annual targets at the beginning of each fiscal year and have quarterly evaluations and interviews. Through these evaluation systems, the company tries to evaluate employees fairly. And the company offers training in evaluation and coaching to those at and above manager level.

## Developing the Next Generation of Top Executives

MOL offers group training programs by noted outside instructors and joint studies such as management analysis of Group companies and proposal of strategies at an intra-Group business school, to foster the next-generation of top executives for Group companies. Our Group companies' employees also participate in this school, aiming to enhance Group management and human exchanges. We also offer the MOL Group Executive Seminar, which targets current top executives of Group companies.

#### **Employee Satisfaction Survey**



Miwako Ando Manager, Human Resources Division, Human Resources Management Group

We implemented the employee satisfaction survey to everyone in the company in October 2005. The results showed generally high levels of satisfaction overall, compared to other companies\*. Particularly, satisfaction with works, salary, the evaluation system, allowances, working conditions, the company's brand image, CSR management, and approaches to the environment was generally very high. On the other hand, the survey indicated some dissatisfaction with the operation of the salary system and the evaluation system, skill development support, and the training system. We have already started tackling the areas where we saw dissatisfaction. We continue our efforts to understand employees' concerns about various aspects of their work and the workplace, and develop a working environment that is rewarding to them.

\*Implemented benchmarks with other 20 companies

#### **Outlines of Employees Satisfaction Survey**

Target:

company

56.1%

Agree

Disagree

233



### Toward Creating an Innovative Work-Life Balance in Japan



Keiichi Fukushima General Manager Human Resources Division Counseling and Aid Center

Women's participation in the workplace expanded in the United States, during the 1980s, and the concept of "work-life balance" for working mothers became popular. Japan also saw recognition of its importance in the wake of a reduced birth rate. MOL took action to upgrade its personnel system based on the Next Generation Education and Support Promotion Act.

On the other hand, there is a concern that the traditional Japanese work ethic may limit the effect of such changes.

The point is to create a working system that allows women to make the most of their skills. In today's environment, we need to increase alternatives to ensure flexible working conditions for employees to develop a way to balance work and private life, while taking into account the advantages and disadvantages of Japan's traditional labor practices and today's diversified employment patterns.

## Personnel Exchange among Group Companies

The MOL Group promotes personnel exchanges between MOL and domestic or overseas Group companies and among Group companies. Recruitment and training at Group companies, were implemented at each company, but are now done through the MOL Group by such sharing employment information. We also have frequent exchanges through sports or cultural activities and events by group employees.

### **Career Development Workshops**

This is a self-improvement program to build better relationships between companies and employees. The goal is for all employees to reflect themselves on their relationship with the company, and for supervisors and employees alike to realize that their work has meaning. The company implements this program mainly targeting managers (over 37 years old). MOL also has a career design training program targeting non-clerical workers.

## Ensuring Employees' Health and Protecting the Work Environment

Each employee works in a well-developed work environment, in a physically and mentally healthy condition – this is the foundation of the MOL workplace. To maintain such a working environment, MOL established the following systems:

- Yearly medical check-ups
- Medical services in the company clinic located in the head office
- Mental health consultation service
- Physical exams for employees and spouses 35 and older through the MOL health insurance association
- Medical exams before and after overseas postings
- Yearly medical check-ups for employees working overseas
- Counselling and Aid Center in the Human Resources Division (please refer to the column at left.)
- Casual Day (every Friday, casual everyday between June and September)

## Supporting Systems for Women Employees and Family Life

As more and more women advance in the workforce, individual value and lifestyle diversify. MOL takes the initiative in such changes in the social environment, and continues to introduce and examine various systems as we plan to develop the next generation of employees.

Maternity and child-care leave	Introduced five (5)-day leave for maternity and one-hour flex time in daily work schedules. Employees can take eight weeks of leave before and after childbirth (all salary is paid six weeks before and after the birth). Child-care leave system pending acceptance at day care is available (without pay). About 50 employees have used these systems since 1992, and these have become established with almost 100% use.
"Refresh" leave	After 15 years of service, employees receive refresh leave of five days off plus incentive pay, and 10 days off plus incentive pay after 25 years of service.

#### Status of Women

As of March 2006	Career employees: 39, clerical workers: 153
Highest position of women employees	Group Leader (the position following general managers of divisions, offices, and branches)
System to transfer to career employment	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

There were 159 expatriate staff working overseas, as of March 31, 2006. The company supports various aspects of their lives such as medical care, children's education, and safety of the nation where they work. The company hired about 3,000 national staff all over the world, striving to promote the growth of local economies.

## **Relationships with Labor Unions**

Land-based employees belong to the Mitsui O.S.K. Lines Labor Union, and seagoing employees are affiliated with the All Japan Seamen's Union. Both unions enjoy strong, trusting relations with the company management.

## Caring for Seagoing Employees

MOL hires seagoing employees for its ocean-going shipping business. They play a key role of maintaining vessels' safe operation and managing vessel operation, which are the basis of our company business.

## Caring for Seagoing Employees

## **Basic Policies for Employment**

Since a national license is required to work as a seagoing employee, acquisition of seamen's competency certification is an essential condition of employment. MOL's policy is to hire about 20 seagoing employees every year – generally half navigation officers and half engineers. The company now has female navigation officers, hired in FY2004 and FY2005.

Operational range and activities of seagoing employees have expanded every year, requiring more expertise. They can gain expert knowledge through specialized training after joining the company and during onboard services, so the company considers motivation, enthusiasm, and flexibility in hiring decisions

### **Roles of MOL Seagoing Employees**

Many of MOL's seagoing employees advance to positions in sales support operations such as handling safety measures and coordinating vessels, port/harbor and sales divisions, as well as land-based vessel and seafarer management. For the first 10 years of their careers, they concentrate on serving aboard ships and acquire extensive competence as future captains and chief engineers. Then, based on experience as officers and engineers, they are posted to land-based positions where they can utilize their accumulated know-how as they follow their own career paths by serving aboard various types of vessels. Thus, they are required to serve as all-round maritime experts to lead the MOL Group.

#### Seafarer Education and Training

Needless to say, seafarers' skills play a key role in safe operation. MOL seagoing employees serve aboard some 30 vessels. And as a result of our efforts to expand supply sources of seafarers, Japanese seafarers of Group companies and non-Japanese of over 20 nationalities serve on other MOL-

operated vessels. MOL has already opened crew training centers\* in seven nations, and started to reinforce maritime education systems at schools in the Philippines and India in FY2005. The company also opened a training center in Russia. We expect employment of non-Japanese seafarers to continue to increase in step with our business expansion, and we are preparing to further enhance our education and training programs. We also plan to focus on leadership and management qualities by sharing maritime know how with former seagoing employees who have high levels of expertise, while recruiting and training foreign seafarers. It's worth noting that MOL takes a borderless approach to training seafarers, considering cross-cultural aspects to ensure more practical training. We recruit top candidates from all over the world and provide high-quality training to reinforce our foundation of safe operation.



MOL's crew training center in the Philippines



Classroom instruction

### Maritime Training Center in the Philippines

MOL's crew training center in the Philippines is the first training institute in that nation established by the Japanese shipping industry. It plays a central role in MOL's seafarer education network. In FY2004 and FY2005, the Philippine Minister of Labor and Employment awarded MOL the International Employers Award for its contributions.



Philippine President Gloria Macapagal-Arroyo meets with MOL President Akimitsu Ashida

\* Crew training centers Seven nations — Japan, Philippine, India, Montenegro, Croatia, Indonesia, Russia

#### Health Hazards of Asbestos

MOL implemented a survey of health hazards of asbestos in July 2005. The company contacted about 4,000 former seagoing employees and notified them of medical exams available at company expense. As a result, three cases were registered on workers' accident compensation insurance as of May 2006.

The company continues to fully respond to the asbestos issue such by providing advice on application procedures for insurance and issue of necessary documentation.

Number of Cases Involving Workers' Ac	cident
Compensation Insurance	

FY2001	2
FY2002	4
FY2003	5
FY2004	6
FY2005	1

Target: MOL seagoing employees

#### MOL Seafarers by Nationality



\*1 Mainly Croatia and Montenegro \*2 Bangladesh, South Korea, Singapore, Sri Lanka



Greeting card for foreign seafarers' families from MOL Group ship management company (MOSM)

#### **Carrying People's Dreams**



Naomi Takagi Second Officer

I think a visit to the *Shin Sakura Maru* as a Girl Scout when I was in an elementary school led to me getting a job as a navigation officer. Of course, I have different physical strength than the men on board, but I find that we can help each other if I work hard and cooperate. At first, it was bewildering to find difference in the way of thinking from foreign seafarers. But now I realize that if we make the extra effort to communicate on a routine basis, things will go smoothly. I look at all kinds of cargo when I'm on board, and realize that people all over the world are waiting for that cargo. I'm carrying people's dreams, and I take pride in answering that challenge.

## Caring for Seagoing Employees

Seagoing employees work for eight months, and take four-month leave in general. Because of this irregular working system, the company takes special care to ensure the welfare of these workers and their families.

## **Occupational Safety and Health**

The Onboard Management Committee and Onboard Safety and health Committee are established to serve seagoing workers. They work to improve the working environment and safety and health conditions through onboard duty plans, implementing safety checks on onboard facilities and working environment, and implementing safety and health management and education for onboard operations. Qualified onboard health officers take responsibility for monitoring seafarers' physical and mental health. The company ensures that employees receive adequate leave and maintain their health through implementation of dedicated checkups.

#### **Caring for Families at Home**

It is vital to care for seagoing employees and their families, who must spend considerable time apart. MOL established the consulting office for seagoing employees and their families in the Human Resources Division and organizes regional gatherings for employees and families (organized by a service club for seagoing employees, *Kaisho-Kai*) for both informational and social purposes.

## **Crew Duties**

**Deck Section:** Responsible for maneuvering vessel, safe cargo transport, loading/discharging operation, and hull maintenance. For safe operation, three teams of an officer and an able seaman, take deck watch (maneuvering and lookout) around the clock with six four-hour shifts while the vessel is under way.

**Engine Room Section:** In charge of maintenance and operation of vessel facilities including the engine. They are responsible for keeping vessel running in the best condition. The day in the engine room starts with working 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 is in M zero (unattended) operation.

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



Deck Section: Voyage planning on deck



Engine Room Section: Removing a piston from the engine

#### Organization of Vessel (an example in case of 23 crew members on board)

	Deck Section	Chief officer (1), Second officer (1), Third officer (1), Deck crew (6)
Captain	Engine Room Section	Chief engineer (1), First engineer (1), Second engineer (1), Third engineer (1), Engine crew (6)
	General Affairs Section	Crew (3)

## **MOL** College Opens

About 30 employees from overseas subsidiaries around the world gathered for the first MOL College in October 2005, as part of our initiative to develop a more global personnel system.

The MOL College was held as a measure for global human resources development, which is an MOL STEP task. One goal was to nurture employees of overseas subsidiaries that play a key role in the MOL Group by communicating the MOL Group Corporate Principles, midterm management plan, and overall business view. Equally important was to share MOL's rules of conduct and values to build a sense of belonging to the MOL Group through exchanges with employees at the Head Office. The two-way communication deepened understanding for everyone involved.



## **First Day**

The event began with a seminar related to multi-cultural communication, with participants from the Head Office. One seminar participant said, "I learned to communicate with people who have different values, and how to respond to them. That will put me on the path to success in global business."



## Second Day

After a lecture about MOL Group history, a question-and-answer session with MOL President Ashida was held. President Ashida gave thorough, well-thought-out answers, and one participant said. "I really understand MOL's vision, and I feel closer to the Head Office after the president answered my questions personally."

## Third Day

The participants visited the MOL Technology Research Center (Please refer to page 30 for details) in the morning. They learned how the center's activities safeguard the fuel used aboard MOL-operated ships and support MOL's top-quality services. In the afternoon, the Finance and Accounting Division and Marine Management Division made



presentations. Because both divisions' operations are so different from participants' daily activities, the presentations captured everyone's interest and generated lively discussion.

## Fourth Day

What are MOL Group "values"? Discussions focused on how to define universal values for the MOL Group. After a half-day session. The participants made presentations about MOL values in line with the future image of the MOL Group to President Ashida, six top executives, MOL (America) Inc. Executive Vice President Ray Keene, and MOL (Asia) Managing Director Michael Goh.



The first MOL College earned high marks from the participants since they gained an understanding of all MOL Group activities and policies, and had the opportunity to contact people outside their own divisions, which is rare for overseas employees. The company hopes to build a stronger sense of unity by exchanging opinions among employees beyond their own divisions and nations. The MOL College will continue to foster global human resources in the future.

#### **Impressions from Participants**



Masaru Morioka Liner Division Administration Group

At the group discussion on the last day, seven people from different divisions and nations – the United States, India, Nigeria, Brazil, and Japan – discussed MOL values apart from business. In a word, I had fun. The discussion was defining MOL values, and how they are reflected in the rules of conduct. We didn't automatically agree on everything, but we had a spirited discussion. We didn't reach agreement easily, but we got to see how each other's thought processes worked, and their ideas became clearer. Our discussions made me realize the high expectations we all have for the MOL Group.



#### Marcelo Batista MOL (Brasil) Ltda.

The MOL College was a valuable experience. My career has been in the containership business, so I had only limited knowledge about other MOL Group businesses. So this was a good opportunity for me to learn. By meeting worldwide Group employees in various fields and exchanging opinions with them, I was able to grasp what a big organization I work for. And at the multicultural communication seminar, I learned to be aware of different values, which will be a big help in business development.

## **Social Contribution Activities**

The MOL Group contributes to society by transporting various commodities that support people's lives and promote economic development around the world. We continue to work proactively on social contribution activities in line with our policies.

### **Basic Policies**

The MOL Group focuses social contribution activities on the following areas, closely related to our business:

- Transport of aid supplies
- International cooperation and maritime education
- Marine and global environmental protection
- Others (monetary contributions, etc.)



Measuring aerosol density



Beach cleanup program in Kamakura

#### \* Aerosol

Microscopic particles floating in the air such as fine sand dust, volcanic smoke, industrial emissions, and auto exhaust. It is recognized that aerosol particles reflect sunlight, help limit global warming, and generate clouds. So, this indicates a link to climate changes and the destruction of the ozone layer. However the exact role of aerosol particles is still unclear, and more research is needed on global aerosol density.



Oil-spill disaster volunteer leader training

## Aid Supply Transport and Monetary Donations

The MOL Group conducts aid activities in times of need, such as in the aftermath of natural disasters. Utilizing our world-linking container service networks, the company collects aid supplies from NGOs, companies, and individuals all over the world, and transports them to afflicted areas at no charge.

### Support for victims of the Pakistan Earthquake (October 8, 2005)

- Transport 20 TEUs (equivalent to 20 20-foot containers) of relief supplies to Karachi aboard our containerships
- Monetary donations to the Japan Red Cross

#### Support to areas hit by Hurricane Katrina (August 29, 2005)

- Free use of shipping containers bound for disaster areas These were used to transport aid supplies.
- Monetary donations to aid agencies including the Japan Red Cross (including company matching funds along with money raised by employees in overseas subsidiaries)

### Support for victims of Leyte landslides in the Philippines (February 17, 2006)

Donations to local aid agencies by MOL and overseas subsidiaries

## Others

- Cooperation with the Together with Africa and Asia Association (TAAA) to transport a mobile library bus to South Africa
- Cooperation in collecting donations to the Japan Red Cross and UNICEF
- Donation to Japan-China environment afforestation project in Chongqing

## **Environmental Protection Activities**

MOL also focuses on social contribution and environmental activities at sea where we do business. Cooperation in Marine Research Projects

- Surface water temperature observation research by expendable bathythermograph (XBT) This research aims to clarify the interaction between the ocean and atmosphere, the role of the ocean in climate changes, and the ocean's overall circulation. This research is conducted aboard the MOL VLCC *Katori* in the Indian Ocean.
- Aerosol observation research

MOL installed equipment to automatically track the sun and collect data on aerosol density aboard the coal carrier *Yahagi Maru* and the iron ore carrier *Shinzan Maru* in response to requests from research institutes.

#### Beach Cleanup

MOL started this campaign in 2000, and 2006 is the seventh year. A total of 24 employees, including some from Group companies, helped clean up the beaches at Odaiba Seaside Park in Tokyo and Yuigahama Beach in Kamakura.

### Participation in Volunteer Leader Training Sessions for Oil Spill Response

Since 2004, MOL supports employee participants in this lecture co-sponsored by the Umimori volunteer information center and The Japan Foundation, with cooperation of the Maritime Disaster Prevention Center. And in 2005, the company invited a lecturer from the center. Many directors and employees from MOL and Group companies have participated in this program. It was aimed at developing volunteer leaders who have basic knowledge of oil spill response. Participants get a fresh reminder of the importance of safe operation and learn how to react in case of an accident.

Mid-term plan (FY2004–2006)	Deepen social contribution activities	on activities		
2005 targets	Achievements	Evaluation	2006 targets	
Implement MOL Kids Cruise, as a unique approach suit- able for MOL     Deepen activities founded on basic MOL policies	<ul> <li>Continued existing activities</li> <li>Implemented MOL Kids Cruise</li> <li>Sent monetary donations to disaster areas, and cooperated in transport of aid supplies</li> <li>Enhanced cooperation with UN World Food Program (WFP) and NPO</li> </ul>	0	Continue existing activities     Study activities concerning local community     Implement activities to realize sustainable society     Introduce and adopt employee-participation     type programs	

## **Co-Sponsoring Kids ISO Program**

MOL continues to co-sponsor an environmental education program for pupils in elementary, junior high schools.

### Afforestation Activities in Tanzania

MOL donated used stamps and telephone cards that paid for about 1,300 seedlings that were planted by the NPO Tanzania Pole Pole Club. The club promotes afforestation activities in that nation.

## International Cooperation and Maritime Education

- Supported local seafarer education and training in the Philippines and other countries
- Participated in Junior Achievement, supporting vocational education for pupils in elementary, junior high, and high schools
- Participated in People's Hope Japan, which focuses on improving health and medical care in developing countries
- Helped support the UN WFP, the Japan office of the United Nations World Food Program (WFP)

## Others

- Conducted joint study with Tokyo University of Marine Science and Technology, and dispatched a lecturer to the university
- Hosted elementary and junior high school pupils in visits to offices and container terminals
- Dispatched a lecturer to Hitotsubashi University to lecture at the Faculty of Economics
- Accepted a lecturer from Kobe University's School of Maritime Science Technology as an intern

## MOL Group Companies' Social Contribution Activities

## Mitsui O.S.K. Passenger Line, Ltd.

Displayed the work of young artists in the Nippon Maru gallery, and hosted a visit to the ship by local citizens

#### MOL Ferry Co., Ltd.

Founded the Shiretoko fundraising packs

### International Container Terminal Co., Ltd.

Hosted container terminal tour for pupils in elementary and junior high schools and overseas trading trainees

#### Mitsui O.S.K. Lines (Japan), Ltd.

Cooperated in the transport of aid supplies (clothing, etc.) to the Children's Community Garden, a charity organization in Brazil

#### MOL Logistics (Japan) Co., Ltd.

Cooperated on a project to send hand-knitted sweaters to the children of the former Yugoslavia. This effort is sponsored by the Smile-Heart Club, the Mitsui Sumitomo Insurance volunteer organization



Container terminal tour for high school students (Ohi Wharf, Tokyo)



Lecture at the MOL crew training center in the Philippines



Shiretoko fundraising activity (Poster)

Vessels and sales offices of MOL Ferry, which has a long and strong relationship with Hokkaido, promoted fundraising packs to help preserve the natural wonders of Shiretoko, designated a World Heritage site.

## **MOL Kids Cruise**

Japan is a maritime nation and its future is in the hands of today's schoolchildren. The MOL Kids Cruise program invited these young pupils and their parents aboard the Nippon Maru to acquaint them with ships and the ocean, and to further impress them with the importance of environmental issues, which show no sign of alleviation. (Sailed from and returned to Yokohama, March 25-26, 2006)



We invited 157 schoolchildren from grades four through eight, along with their parents, 314 in total. The children were chosen by lottery from among those who submitted essays to our "Thoughts on Ships or the Ocean" contest that ran from June to September 2005. To conduct the program, we called on 12 volunteers from within the company in addition to the staff of the Corporate Planning Division CSR and Environment Office (secretariat). This team set the guidelines for applicants and selected participants, and conducted the program aboard the ship by themselves. In addition, the program was recognized and assisted by the Tokyo Metropolitan Environmental Agency, which cooperated in many ways, including publicity.

The essays submitted to the contest were all read by the secretariat staff and volunteers, then the Kids Cruise Captain, then Deputy President Hiroyuki Sato, and other relevant directors selected one Grand Prize winner and three runner-up prizes. The prizes were presented on board the ship during the Kids Cruise.

During the Kids Cruise, participants got to spend time on the bridge with the captain, and join many fun activities such as rope work, flag signaling, study of the constellations, quizzes about ships and the ocean, deck sports, napkin folding, clarinet ensembles, and more. Under clear skies, shouts of joy from the sports deck were just one indication of how much the kids were enjoying themselves, and inside, the children took to the lessons available with serious looks on their faces.

As part of the program, Takaya Kawabe, guest lecturer at the United Nations University, and weatherman Yoshihiro Takeda entertained the pupils with information about the ocean's vital role in the environment. Artist Ryohei Yanagihara spoke of the wonder of ships and the ocean and drew pictures of ships as the children watched. The kids were enthralled.

We were afraid the children would be unable to absorb much of the program's content, but later communication from their parents said, "Our kids understood a lot more of the program than we expected, which was quite a surprise." We were happy that the children paid such close attention to our messages about ships, the ocean, and the very important role of the ocean in protecting our environment. And we hope the experience helps the children turn their attention to shipping and to the issues facing the global environment.

The Kids Cruise is unique to our company and is possible because of our maritime heritage. And we feel the program was an excellent opportunity to communicate with people we don't encounter during our day-to-day business. In addition, this kind of program reinforces the philosophy that our Group companies can help people understand maritime shipping and learn to appreciate the role of the ocean in the global environment.

## Approaches to CSR Overseas

The MOL Group is building lasting relationships with various stakeholders around the world and engages in a variety of CSR programs aimed at promoting sustainable progress across the globe.

## MOL (America) Inc./Robert Colombo

One of the most important aspects of CSR is making sure all of our employees are well versed in our compliance rules of conducts. In fact, I think it is especially important to impress new employees with the importance of compliance. To make sure that every employee knows the legal and in-house compliance regulations and is committed to following them, it is important that we follow up by creating opportunities for question-and-answer sessions. Our CSR Handbook details our internal compliance standards, but it has also proven effective to touch upon these standards during management training seminars. Concerning the environment, we participate in the ETMS program (MOL Group Environmental Target System) (please refer to page 25 for details) and do all we can in operating our office in ways that minimize any burden on the environment. This program is in effect throughout our offices in the United States.



Robert Colombo AVP Human Resources MOL (America) Inc.

## MOL (Asia) Ltd./Edith Chung

Part of the CSR objective at MOL (Asia) of course includes compliance with legal requirements, but we also feel that each and every one of us must be more fully aware of CSR. Once such program conducted in 2005 was a blood drive in



Senior Citizens Day

cooperation with the Hong Kong Red Cross. Another, done for the first time was the planning and execution of a Senior Citizens Day at St. James' Settlement, a welfare organization in Hong Kong. The objective was to give seniors an opportunity to mix with younger members of society, thereby helping them to recover some of their self-

Edith Chung MOL (Asia) Ltd.

confidence. Thirty volunteers from our company spent the day with 50 elderly persons. The volunteers say that the experience gave them valuable insights into the issues facing not only senior citizens, but also various people.

## MOL (Europe) GmbH/Gilles Duponchel

We have distributed the CSR Handbook to all employees, and made sure that each person read the handbook at least once. After that, we held group discussion where we exchanged ideas and discussed the reasons why it was important for us to engage in CSR. Our employees are very positive about MOL Group CSR approaches and felt there were two important points. First, CSR-related information has an effect on overall management, and is an effective tool to help employees understand the direction of the entire MOL Group. Second, MOL is a corporation concerned both with the global environment and with its individual employees, and CSR approaches will serve to further strengthen and stabilize the company.

Gilles Duponchel Regional General Manager MOL (Europe) GmbH

Our company has engaged in social contribution activities in the past, but we see CSR as being part of our everyday MOL (Europe) GmbH activities, and we set our four major directions with CSR in mind. A major issue will be addressing environmental concerns in inland transport, which is one of our major businesses. Achieving our four major directions, especially safe inland transport, will be very much a part of our overall environmental policies.

MOL (Europe) GmbH 4 Major Directions

 Business:
 Customer Satisfaction

 Social:
 Training Strategy

 Finance:
 Limit Risk

 Inland:
 Safe Operations

## Communication

MOL believes that communication with all our stakeholders is vitally important. It helps people understand the stance of the MOL Group, and enables us to listen to the opinions and ideas of our stakeholders. And that, we think, is what communication is all about.

Mid-term plan (FY2004–2006)	Amplify communication across the spectrum of stakeholders		
2005 targets	Achievements	Evaluation	2006 targets
<ul> <li>Disclose information on MOL Group's CSR approaches to stakeholders</li> <li>Set disclosure information standards that meet the needs of the times</li> </ul>	<ul> <li>Renewed MOL Web site</li> <li>Placed the MOL Environmental and Social Report on the UN Global Compact site</li> <li>Took IR information activities to a higher level</li> <li>Held media relations drills</li> </ul>	0	<ul> <li>Check detailed items on information disclosure, considering the peculiarities and points to keep in mind, at marine accidents</li> <li>Work to increase interest and understanding of the MOL Group, vessels, and ocean transport on the part of all stakeholders</li> </ul>



MOL President Akimitsu Ashida and young employees at the Fresh Can-Do Meeting. The Fresh Can-Do and the Can-Do meetings bring together young employees, and managers/group leaders with the president to exchange ideas and look at issues and problems from a new viewpoint respectively.



MOL Environmental and Social Reports (2000-2005)



Quarterly Ethica

Distributed to customers, this quarterly provides artistic and cultural presentations on vessels, the ocean, and harbors/ports



Kaisha no Arukikata Edited and published by Diamond Inc. with MOL's cooperation, and distributed to customers and students (prospective employees)

### Communications in MOL and the MOL Group

MOL holds periodic liaison meetings and councils at various levels so everyone is able to grasp our organization's vision, information, and consciousness. These include Group Management Meetings for executives and presidents of Group companies and Executive Officers' Liaison Meetings, By-level Liaison Meetings such as General Managers' Meeting, Can-Do Meetings, Fresh Can-Do Meetings (please refer to photo at the left), and quarterly financial results report meetings mainly for assistant managers and young employees.

## Communications through In-House Magazines and Intranet Bulletin Boards

- Unabara monthly internal magazine for all employees, also distributed to Group companies
- Kaishokaiho Monthly communications magazine for seagoing employees
- Open Sea English Web site published quarterly for overseas Group company employees
- Open Sea (digest) English language magazine for non-Japanese onboard seafarers on MOL ships
- MOL Group Bulletin Board a bulletin board (on intranet) available to directors and employees of MOL and Group companies

In addition, publication of CSR and Environment bulletin boards, Monthly "Environment" on the Web site, and other print magazines help all employees share the same information and exchange ideas.

### **External Communications**

- The MOL Web site to provide information (Japanese and English, http://www.mol.co.jp)
- Annual Report (published in July each year in Japanese and English)
- Environmental and Social Report (Published in August each year in Japanese and English)
- Quarterly Ethica
- Kaisha no Arukikata (MOL A Guide to the Company) (edited/published by Diamond Inc.)

#### **External Evaluations (FY2005)**

- Continuing selection for the Dow Jones Sustainability Indexes (DJSI), FTSE4Good Global Index, Morning Star Index of Socially Responsible Investments
- The top rating in the transport sector on corporate disclosure by the Security Analysts Association of Japan (September)
- The International Employers Award from the President and Minister of Labor and Employment of the Republic of the Philippines (November)
- Excellent IR Award from the Japan Investor Relations Association (November)
- Excellence Award for Annual Report 2005 from Nihon Keizai Shimbun (December)
- Excellent Sustainability Report Award of the 9th Environmental and Sustainability Report Awards, jointly sponsored by Toyo Keizai, Inc./Green Reporting Forum
- MOL Ferry Co., Ltd received the 6th Logistics Environment Grand Prize from the Japan Federation of Freight Industries (JFFI) (May)

## **Third-Party Opinion**



Naoki Adachi Doctor of Science Evaluator Sustainable Management Forum of Japan Sustainable Management Rating Institute (SMRI)

Upon reading the 2006 Environmental and Social Report from MOL Group, I was impressed by the serious attitude with which your company undertook CSR issues, including those addressing both society and the environment. Despite the maritime and global nature of your business, your efforts for both society and the environment were well thought out and executed in detail. I was especially impressed by all your fine-tuned approaches to caring for people and the environment. Your company is active on sea lanes that are not protected by domestic legal restraints, and many of the vessels you operate are chartered rather than owned. Speaking strictly of legal restrictions, your company could interpret its responsibilities much more narrowly than is actually the case. Instead, you choose to interpret your responsibilities as broadly as possible and strive to do business globally according to a single standard. I find that indicative of a very responsible corporation.

In addition, your company employs seafarers and employees from many different countries and regions, and is careful to provide stringent training that takes the needs of each nationality into consideration. You also offer a level of employment that allows employees to support their families. The MOL College and other opportunities help ensure international communication and understanding among MOL Group personnel. I feel that MOL does well in meeting its responsibilities as an international corporation. Those activities are supported by corporate governance and compliance policies at MOL, which are detailed in this report. And in March 2005, MOL became the 29th Japanese company to join the UN Global Compact, which I see as a commitment at the highest executive level. Activities that contribute to society include the Kids Cruise and the collection of maritime data to help protect the global environment. These activities are especially valuable because they reflect your company's business.

One thing that disappoints me is the lack of clear vision for the future. From the ordinary reader's viewpoint, MOL belongs to an unfamiliar industry, and its explanations tend to be cluttered with industry jargon. With greater attention paid to terminology, this problem could be alleviated. A more significant problem than terminology, however, is the fact that the depth of MOL and the MOL Group's commitment to contributing to society is not well and convincingly portrayed. As the topics section of this report says, the most important thing required of maritime transport companies is presenting methods of mass transport that do not contribute to global warming. Without doubt, international transport of commodities will increase, and as it may contribute to global warming, and has serious effects on sustainability of human existence. In such a situation, we look to maritime transport for solutions, and a modal shift has already begun. Now MOL must go beyond mere environmental performance, go beyond short-term objectives, and embrace a much larger image of the future. By increasing MOL's role in the transport industry, the company can contribute to reduce its environmental burden. In that sense, I'd like to see MOL make audacious proposals and then take proactive steps to actuate those proposals. The goal of reducing CO2 emissions in 2010 to 10% less than those in 2005 may not be enough. And you must realize that the 0.1% reduction achieved this fiscal year is nowhere near sufficient. You must turn the tiny advances you are making today into dynamic environmental performances. You must set challenging objectives. And I'd like to see MOL genuinely commit to being a company that commits to "contributing to sustainable global growth."

When crossing the ocean, there are no paved roads so you must continually keep your destination clear at all times, and maintain a steady course. By the same token, your company must know where it wants to be 20 or 50 years from now, as well as the courses that must be sailed to reach those milestones. Making sure these courses are clear to all will not only help those steering the company but also those using the company's services. Hopes on the goals will help you overcome difficulties encountered en route. And I hope MOL will continue to prosper in the future.



Koichi Muto Managing Executive Officer (Vice Chairman of CSR and Environment Committee)

## **MOL's Response**

Professor Adachi, thank you for your valuable insights. The professor evaluated our approaches to the marine and global environment and CSR highly, especially those related to the ocean and the global environment as well as our employees including our seafarers. We fully intend to continue our tasks to ensure safe operation and protect the environment in line with the expansion of our fleet. To back up this approach, I think human resources are the key. Training and education of maritime officers and crews are indispensable to safe operations of vessels. In addition, transfer of those skills to the next generation is also vital to the safe operations of our vessels and the protection of our global environment. Training and education cannot be completed overnight, but without such training programs we cannot hope to contribute to sustainable growth of the world. As the professor pointed out, these approaches help us maintain the MOL Group raison d'etre and enable us to contribute to our various societies. Indeed, we fully intend to meet the greatly increasing demand for global transport services year in and year out, especially ocean shipping, while contributing to sustainable worldwide growth.





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## To all readers

## Re: MOL-operated vessels' incidents at sea

As already officially announced through press releases and other media, three serious incidents involving MOLoperated vessels have occurred since April 2006. Please allow us to offer our sincerest apologies to all of our stakeholders for the inconvenience and anxiety caused by these events. Our company regards every such occurrence as a serious threat, and all our directors and employees are committed to returning to the basics of safe operation and taking countermeasures to prevent the recurrence of any marine accident. The company presents the following outlines of the incidents, as of August 23, 2006. These incidents and countermeasures will be fully detailed in the next Environmental and Social Report, which will be issued in August 2007.

- 1. A fire occurred in the engine room of the containership *MOL Initiative* while under way off Hokkaido on April 3. The crew battled the fire by themselves but could not get it under control. MOL contacted the Kushiro Coast Guard Office and the crew were taken to safety by a patrol vessel's helicopter. The *MOL Initiative* was towed to Hakodate by an MOL-arranged rescue vessel, and full-fledged efforts to extinguish the fire were undertaken. The fire was completely controlled on April 9, and damage was limited to the engine room. The vessel was then towed to Tokyo Bay, where the cargo was unloaded and it was taken to a shipyard for repairs.
- 2. The hull of the car carrier *Cougar Ace* listed heavily to port and had become disabled at sea south of the Aleutian Islands on the afternoon of July 24. The incident resulted from the excessive discharge of seawater from the ballast tank at the bottom of the ship during ballast water exchange operations. (Ballast water is seawater placed in exclusive tanks to maintain the proper hull position. Ships exchange ballast water in the open sea to prevent environmental contamination at the discharge port.) With the cooperation of the U.S. Coast Guard and other parties, the crew was rescued and work proceeded promptly to stabilize and tow the vessel. The *Cougar Ace* has been anchored in Dutch Harbor in the Aleutian Islands, where safety measures for the cargo, hull, and engine are being conducted, and then the ship will be towed to the unloading port. No oil spill resulted from this incident.
- 3. The crude oil tanker *Bright Artemis* was under way in the eastern Indian Ocean on the afternoon of August 14 when it received a distress signal from a cargo ship that was on fire and drifting about 18 miles away. The tanker immediately proceeded to that position for the rescue. However, the wrecked ship was rapidly pushed by ocean waves and winds, and struck the tanker, rupturing one of the cargo tanks.

Unfortunately, about 4,500 tons of crude oil spilled. The crew took immediate steps to stop further oil spills, such as pumping the crude oil from the damaged tank to other tanks. The Maritime Port Authority of Singapore and the Indian Coast Guard have been informed of the incident.

MOL chartered an airplane to take six oil spill prevention experts to the area to observe the situation on August 16. There were some oil patches of a few square meters found at the site, but a broad and dense oil sheen was not observed. There is a high possibility that vaporization and diffusion of the slick were accelerated because of the highly volatile components of the spilled oil and the strong wind/wave action during the monsoon season. The experts saw a very low possibility that spilled oil would reach the shores of surrounding nations, or result in a major impact on the marine ecosystem. Nevertheless, MOL has established a structure to take immediate action such as arrangement of vessels and materials for oil spill control and response, just in case the spilled oil approaches the shoreline.

Hidehiro Harada

Representative Director, Deputy President Chairman of CSR and Environment Committee

## **GRI Guidelines and U.N. Global Compact Comparison Charts**

In producing this report on MOL Group CSR activities, our No. 1 goal is to communicate the information in way that is easy to understand. We referred to the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines to select the items covered in this report. The chart below shows these GRI guidelines, the principles of the U.N. Global Compact, which we joined in March 2005, and our activities.

Relevant Global Compact principles		GRI Guidelines	Related pages
	1.Vision and S	trategy	
Principle 8	1.1	Statement of the organisation's vision and strategy regarding its contribution to sustainable development.	4-5
	1.2	Statement from the CEO (or equivalent senior manager) describing key elements of the report.	4-5, 16-17
	2.Profile		
	Organisationa	Profile	
	2.1	Name of reporting organisation.	2
	2.2	Major products and/or services including brands if appropriate.	2.10-11
	2.3	Operational structure of the organisation.	10
	2.4	Description of major divisions, operating companies, subsidiaries, and joint ventures.	2-3
	2.5	Countries in which the organisation's operations are located.	2
	2.6	Nature of ownership; legal form.	2
	2.8	Scale of the reporting organisation.	2
	2.9	List of stakeholders, key attributes of each, and relationship to the reporting organisation.	14
	Report Scope		
	2.10	Contact persons for the report including e-mail and web addresses.	Back cover
	2.11	Reporting period (eg fiscal/ calendar year) for information provided.	3
	2.12	Date of most recent previous report (if any).	3
	2.13	Boundaries of report (Countries / regions, products / services, divisions/ facilities/joint ventures / subsidiaries) and any specific limitations on the scope.	3
	2.16	Explanation of the nature and effect of any re-statements of information provided in earlier reports, and the reasons for such	35
	Report Profile	re-statement (eg, mergers / acquisitions, changes of base years / periods, nature of business, measurement methods).	
	2.18	Criteria / definitions used in any accounting for economic, environmental, and social costs and benefits.	3, 35
	2.20	Policies and internal practices to enhance and provide assurance about the accuracy, completeness, and reliability that can be placed on the sustainability report.	3
	2.22	Means by which report users can obtain additional information and reports about economic, environmental, and social aspects of	35-37, 50
	2.6	the organisation's activities, including facility-specific information (if available).	
		Structure and Management Systems	
	Structure and		
	3.1	Governance structure of the organisation, including major committees under the board of directors that are responsible for setting strategy and for oversight of the organisation.	18
	3.2	Percentage of the board of directors that are independent, non-executive directors.	18
	3.4	Board-level processes for overseeing the organisation's identification and management of economic, environmental, and social risks and opportunities.	15, 24-25
	3.6	Organisational structure and key individuals responsible for oversight, implementation, and audit of economic, environmental, social, and related policies.	15
	3.7	Mission and values statements, internally developed codes of conduct or principles, and policies relevant to economic, environmental and social performance and the status of implementation.	2, 18-19, 20, 24, 40, 43, 46
	Stakeholder Er	ngagement	
	3.10	Approaches to stakeholder consultation reported in terms of frequency of consultations by type and by stakeholder group.	19, 38, 41, 50
	3.11	Type of information generated by stakeholder consultations.	41
	3.12	Use of information resulting from stakeholder engagements.	51
	Overarching P	licies and Management Systems	
Principle 7	3.13	Explanation of whether and how the precautionary approach or principle is addressed by the organisation.	6-9
	3.14	Externally developed, voluntary economic, environmental and social charters, sets of principles, or other initiatives to which the organisation subscribes or which it endorses.	14-15
	3.15	Principal memberships in industry and business associations, and/or national/international advocacy Organizations.	9
	3.19	Programmes and procedures pertaining to economic, environmental and social performance.	6-7, 12-13, 16-5
	3.20	Status of certification pertaining to economic, environmental and social management systems.	20, 24
	4. GRI Content		
	4.1	A table identifying location of each element of the GRI Report Content, by section and indicator.	Questionnaire
	5. Performance		
	Integrated Ind	icators	
	Systematic indicators	Systematic indicators relate the activity of an organization to the larger economic, environmental, and social systems of which it is a part.	6-9
	1		

	Economic P	erformance Indicators	
	EC1	Net sales	2, 13
	Environme	ntal Performance Indicators	
Principle 8	EN1	Total materials use other than water, by type.	27
Principle 8	EN3	Direct energy use segmented by primary source.	7, 27, 34
Principle 8	EN5	Total water use.	27
Principle 8	EN7	Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, freshwater and marine environments.	28-29
Principle 8	EN8	Greenhouse gas emissions (CO2, CH4, N2O, HFCS, PFCS, SF6)	7, 27
Principle 8	EN9	Use and emissions of ozone-depleting substances.	31
Principle 8	EN10	NOx, SOx and other significant air emission by type.	27, 30
Principle 8	EN11	Total amount of waste by type and destination.	27
Principle 8	EN14	Significant environmental impacts of principal products and services.	8, 27-33
Principle 8	EN15	Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed.	26
Principle 8	EN17	Initiative to use renewable energy source and to increase energy efficiency.	31, 32
	EN34	Significant environmental impacts of transportation used for logistical purposes.	6-9
	EN35	Total environmental expenditures by type.	35
	Social Perfo	ormance Indicators: Labor Practices and Decent Work	
	LA1	Breakdown of workforce, where possible, by region/country, status (employee/non-employee), employment type (full time/part time), and by employment contract (indefinite or permanent/fixed term or temporary). Also identify workforce retained in conjunction with other employers (temporary agency workers in co-employment relationships), segmented by region/country.	12, 44
	LA5	Practices on recording and notification of occupational accidents and diseases, and how they relate to the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases.	44
	LA10	Description of equal opportunity policies or programmes, as well as monitoring systems to ensure compliance and results of monitoring.	42-43
	LA12	Employee benefits beyond those legally mandated.	42-44
	LA16	Description of programmes to support the continued employability of employees and to manage career endings.	40-42
	LA17	Specific policies and programmes for skills management or for lifelong learning.	40-41
Principle1, 2	HR1	Description of policies, guidelines, corporate structure, and procedures to deal with all aspects of human rights relevant to operations, including monitoring mechanisms and results.	14-15, 17, 18-19
Principle1, 6	HR4	Description of global policy and procedures/programmes preventing all forms of discrimination in operations, including monitoring systems and results of monitoring.	14-15, 17, 18-19
Principle3	HR5	Description of freedom of association policy and extent to which this policy is universally applied independent of local laws, as well as description of procedures/programmes to address this issue.	14-15
Principle5	HR6	Description of policy excluding child labour as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied, as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring.	14-15
Principle4	HR7	Description of policy to prevent forced and compulsory labour and extent to which this policy is visibly stated and applied, as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring.	14-15
	HR9	Description of appeal practices, including, but not limited to, human rights issues.	19
Principle10	SO2	Description of the policy, procedures / management systems, and compliance mechanisms for organisations and employees addressing bribery and corruption.	14-15
	SO4	Awards received relevant to social, ethical, and environmental performance.	38, 50
	\$07	Description of policy, procedures / management systems, and compliance mechanisms for preventing anti-competitive behaviour.	18-19
	PR6	Voluntary code of compliance, product labels or awards with respect to social and/or environmental responsibility that the reporter is qualified to use or has received.	Back cover

The Principles of the Global Compact				
Human Rights	Principle 1: The support and respect of the protection of international human rights;			
	Principle 2: The refusal to participate in or condone human rights abuses.			
Labor	Principle 3: The support of freedom of association and the recognition of the right to collective bargaining;			
	Principle 4: The abolition of compulsory labor;			
	Principle 5: The abolition of child labor;			
	Principle 6: The elimination of discrimination in employment and occupation.			
Environment	Principle 7: The implementation of a precautionary and effective program on environmental issues;			
	Principle 8: Initiatives that demonstrate environmental responsibility;			
	Principle 9: The promotion of the diffusion of environmentally friendly technologies.			
Anti-Corruption	Principle10: The promotion and adoption of initiatives to counter all forms of corruption, including extortion and bribery.			

## **Questionnaire for Environmental and Social Report 2006**

Thank you for taking the time to read MOL's Environmental and Social Report 2006. To help us produce even more effective communications tools in the future, please take a few minutes to share your opinions and ideas about this report.

	<b>e Environmental</b> Average Average	and Social Rep Difficult to un Poor			
Q2 What topic(s) did you find th MOL Group Corporate Principles/Corpora Editorial Policies/Scope/Consolidated Subs Creating an Excellent and Resilient MOL C MOL Group Approaches to Prevention of The MOL Group Builds Better Lives All ov	te Profile/Overseas Ne sidiaries in Japan/Cont Group that Contribute Global Warming	twork ents s to Sustainable Wo			
<ul> <li>Corporate Governance and Compliance</li> <li>The MOL Group and the Environment</li> <li>Approaches to Prevention of Air Pollution</li> </ul>	Approaches to Marine n	Deration 🔲 E Environmental Pro	Invironmental Management Stection		
<ul> <li>Approaches to Environmental Technologies</li> <li>Environmental Accounting</li> <li>Customer Relations</li> <li>MOL College Opens</li> <li>Approaches to CSR Overseas</li> <li>Communication</li> </ul>			<ul> <li>Initiatives in the Office</li> <li>Shareholder and Investor Relations</li> <li>Caring for Seagoing Employees</li> <li>MOL Kids Cruise</li> <li>Third-Party Opinion</li> </ul>		
Q3 Please write down any com	ments below.				
Q4       What is your occupation/relation         Business partner       Shareholde         Environmental NGO/NPO       Financial in         Corporate environmental protection/CSR	er/investor Go	<b>- Group?</b> overnment/adminis udent :her (	tration Journalist )		
Q5 How did you know about this report?         Newspaper       Magazine         MOL/MOL Group employee       Environmental seminar					
Thank you for your cooperation. Please complete the following optional info	rmation.				
Name Address	Sex Mal	e - Female	Age Fax		
Occupation (Company name, division/departme			e e e e e e e e e e e e e e e e e e e		

The company will use your answers to this questionnaire to develop future approaches to CSR. We carefully manage any personal information in accordance with our privacy protection policies.

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