

## Bluer Oceans, Cleaner Environment and Sustainable Future





Mitsui O.S.K. Lines

<http://www.mol.co.jp>

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## Editorial Policy

- The MOL Group has reported on its Group-wide environmental protection activities every year since October 2000, when we published the first Environmental Report. In 2003, we renamed the publication the Environmental and Social Report to encompass the Group's overall social contributions as well as environmental protection initiatives.
- Reference Guidelines
  - Environmental Report Guidelines 2007, Japanese Ministry of the Environment
  - Environmental Accounting Guidelines 2005, Japanese Ministry of the Environment
  - GRI (Global Reporting Initiative) (GRI Guidelines Version 3.0)Please visit our website to view comparison charts with the GRI Guidelines and UN Global Compact

 <http://www.mol.co.jp/csr-e/index.html>

- Previous issue: September 2010  
This issue: September 2011  
Next issue: September 2012 (scheduled)

## Scope

### Period

FY2010 (April 1, 2010 to March 31, 2011)

In addition, some activities begun prior to FY2010 and activities during FY2011 (April 1, 2011 to March 31, 2012) are reported with notes.

### Organizations

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

\* The MOL Group

Mitsui O.S.K. Lines, Ltd. and consolidated subsidiaries (320 consolidated subsidiaries and 60 equity-method affiliates).

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

### Data

■ Financial data is based on consolidated results unless otherwise noted.

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

1. Activities conducted at MOL (including all operated vessels).
2. Activities at MOL and 56 consolidated subsidiaries in Japan, as well as activities conducted at equity-method affiliates—Meimon Taiyo Ferry Co., Ltd. and Nippon Charter Cruise, Ltd.
3. In addition to No. 2, activities conducted by 18 key overseas subsidiaries.



Besides this report, information concerning the MOL Group's CSR activities can be found in the "CSR/Environment" section of our website, which was completely revamped in February 2011 to make information easier to read.

 <http://www.mol.co.jp/csr-e/index.html>

## Marine Transport and Environment Glossary

### Container Terminal

Box-shaped shipping containers hold electrical products, apparel, food and other cargo for transport by land or sea. A container terminal is where vessels berth to load and unload containers.

### Ship Recycling/Scrapping

Scrapping refers to the dismantling of aging vessels in the interest of safe operation and protection of the marine environment. Ship recycling refers to the reuse of steel plates and other parts obtained when scrapping vessels after hazardous substances have been properly disposed.

### Ship Bottom (Antifouling) Paints

Refers to paint applied to the bottom of vessels to prevent marine organisms from attaching themselves to vessels. When attached, the organisms increase hull resistance when traveling through the water, reducing fuel efficiency.

### Tugboat

These are small but highly powerful and maneuverable boats used to pull large vessels by rope so that they can safely dock and leave shore. Tugboats also push the bows of vessels to guide and point them in the right direction.

### Double Hull

Double hulling refers to the double plating of a vessel's outer plates or fuel tanks in order to prevent spills of cargo and fuel oil into the marine environment in the event of a grounding or collision of vessels.

### CO<sub>2</sub> Emissions per Unit Load (ton-mile)

Refers to the volume of carbon dioxide (CO<sub>2</sub>) emitted for transporting 1 ton of cargo 1 mile. The measure is used for comparing the energy and environmental efficiency of cargo transport.

### Coastal Transport

Refers to the transport of food, daily necessities, industrial materials, oil and other cargo from domestic port to domestic port.

### Ballast (Water)

When a vessel has no cargo, the propellers can rise above the surface due to buoyancy. To prevent this from happening, seawater, called ballast water, is injected to add weight and submerge the vessel to a certain degree.

### Modal Shift

Refers to establishment of a transportation system with a low environmental burden by switching to low-impact modes of transport. Specifically, this involves switching from automobiles and airplanes to railways and ships for transportation.

### Chartered Vessel

A vessel borrowed from a ship owner or other party.

### LTIF

An abbreviation for Lost Time Injury Frequency, it refers to the frequency of work-related accidents per hour per 1 million people. The company sets an LTIF target with the goal of ensuring the occupational health and safety of seafarers.

### GHGs

An abbreviation for greenhouse gases, the most well-known of which is CO<sub>2</sub>. GHGs are blamed for global warming because they trap heat.

### IMO

Abbreviation for International Maritime Organization. The IMO is one of the specialist agencies of the United Nations and deals with all maritime-related matters.

### LNG

The abbreviation for liquefied natural gas. When natural gas is cooled to approximately minus 162°C, it liquefies and becomes one-six-hundredth of the volume of its gaseous state, facilitating the transport of large quantities.

### MARPOL Treaty

An international agreement designed to prevent pollution of the marine environment from oil, chemical substances, waste, and exhaust emissions from ships. Atmospheric emissions are also governed by this treaty.

### MOL

The abbreviation for Mitsui O.S.K. Lines, Ltd.

### NO<sub>x</sub>

The abbreviation for nitrogen oxide, which is contained in exhaust gases emitted when a ship burns fuel oil. NO<sub>x</sub> is one of the causes of photochemical smog and acid rain.

### PM

An abbreviation for particulate matter, especially diesel emitted particulate, soot and dust contained in exhaust gases emitted by ships when they burn fuel oil.

### SO<sub>x</sub>

The abbreviation for sulfur oxide, which is contained in exhaust gases emitted when a ship burns fuel oil. SO<sub>x</sub> causes acid rain and atmospheric pollution.

## Role of This Report

**This Environmental and Social Report** introduces the company's approach to CSR and the environment, and our latest initiatives, to all stakeholders connected with the MOL Group. In producing this report, we used illustrations, tables and graphs and reflected the voices of our frontline staff where possible. We believe that by reading this report you will gain a greater understanding of how we view our social responsibility as a company, what measures we are taking to reduce environmental impact and ensure safe operation in our business activities, how we are contributing to local communities, and what kind of efforts we are making to meet the expectations of shareholders and other investors and customers, as well as how we are considering land-based staff and seafarers.

MOL also produces the following publications as a means of promoting communication with stakeholders:

**Annual Report\***: A detailed explanation of investor relations information such as management strategy, business environment, operating results and financial data. Primarily for shareholders and other investors.

**MOL Investor Guidebook\***: Easy-to-understand analysis using tables and charts of the MOL Group's management plans, key financial indicators, business activities, market position and operating environment in each business. Primarily for shareholders and other investors.

**Corporate Brochure**: Easy-to-understand discussion of the company's business activities. Mainly for customers, business partners, local communities, and job-hunting university students and professionals, as well as the general public.

\* The latest versions of all reports can be found on our website.

 <http://www.mol.co.jp/ir-e/index.html>

## CSR Glossary

### Accountability

Refers to the responsibility of explaining a company's business and operations to external stakeholders.

### Corporate Governance

Refers to frameworks and systems for ensuring highly transparent and sound management of a company.

### Compliance

The observance of laws and regulations, as well as internal rules.

### Stakeholders

Refers generally to shareholders, customers, business partners, employees, local communities, etc.

### Midterm Management Plan

A company's business plan, typically of three to five years. The company's current midterm management plan is called "GEAR UP! MOL" and covers the period from fiscal 2010 to fiscal 2012.

### Portfolio

Refers to the composition of businesses taking into consideration risk and profitability.

### Business Intelligence

Strategic information for supporting management decision-making. The company defines it as information for improving decision-making results, information for general managers and other persons in positions of responsibility to use for decision-making and action, and information for generating earnings in the MOL Group.

### BCP (Business Continuity Plan)

A plan designed to facilitate continuation or quick restoration of core businesses in an emergency such as a natural disaster or terrorist incident.

### CSR (Corporate Social Responsibility)

Refer to page 14 for details.

### PDCA

A concept for realizing continuous improvement through a cycle of plan (P), do (D), check (C) and act (A) to implement countermeasures and improvements.

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# MOL Group Businesses

The MOL Group, with a core business of ocean shipping, engages in the transport of a broad range of cargoes, including natural resources, energy, raw materials, and manufactured products, that contribute to industrial growth and better lives for people around the world. We run and develop our businesses, taking into consideration environmental and social issues as a player in an industry that is indispensable to the sustainable development of the world economy.

## Bulkships

### Dry Bulkers

Transporting the World's Natural Resources With One of the World's Biggest Fleets



Dry bulkers transport massive quantities of dry cargo that is not individually packaged. Dry bulkers include very large iron ore carriers (VLOCs); specialized coal carriers matched to the size of loading/discharging ports; wood chip carriers, which transport wood chips; and bulkers that transport general cargo including grain. The cargoes transported by dry bulkers are used as various raw materials and fuel as well as food and animal feed. In addition, MOL's fleet includes heavy lifters, which transport heavy, large cargoes that cannot be carried by conventional cargo ships, such as large machinery and plants vital for industrial growth.



A 300,000 DWT-class VLOC at 340 meters long is higher than the Tokyo Tower (333 meters high) when laid on its side. The holds of these ships measure about 200,000 cubic meters. That's equivalent to the water from about 80 Olympic-sized 50-meter swimming pools.

### Tankers

Experts in Energy Transport



Safe, efficient transport is crucial for ensuring stable supplies of crude oil, one of the world's main energy sources. The MOL Group has a varied fleet of oil tankers from VLCCs (tankers of more than 200,000 DWT) to small and medium-sized vessels called Suezmax and Aframax. With this varied fleet, MOL contributes to the stable supply of oil for the world.

MOL also has product tankers that carry refined petroleum products, including naphtha and gasoline; chemical tankers for transporting liquefied chemical products; and LPG tankers for transporting liquefied petroleum gas. MOL supports the world's lifelines with one of the world's largest fleets for energy transport, and its extensive transportation expertise.



300,000-DWT oil tankers (VLCCs) can transport 340,000 kiloliters of crude oil at a time. This represents half of Japan's daily fuel consumption. The cargo of approximately 3.6 VLCCs would be enough to fill the Tokyo Dome.

### LNG Carriers

Aiming to Stably Transport Clean Energy



Liquefied natural gas (LNG) is attracting considerable attention as an environmentally-friendly clean energy resource and demand for this fuel is rising around the world.

The transportation of LNG, which is used as a feedstock for city gas and gas-fired thermal power plants, supports our daily lives and the growth of businesses. Since participating in its first LNG transportation project in 1983, MOL has amassed a wealth of expertise and experience in LNG transportation. As one of the world's leading LNG ocean transport companies, MOL will continue meeting world LNG demand by upgrading and expanding its fleet and rigorously practicing safe operation based on its advanced technologies and expertise.



When natural gas is transported by sea, it is cooled to minus 162°C, at which point it liquefies and becomes one-six-hundredth of the volume of its gaseous state at normal temperature, facilitating the transport of large quantities. One large LNG carrier transports enough LNG for 200,000 Japanese households for 1 year.

### Car Carriers

Transporting Cars in a Safe, Reliable and Eco-Friendly Manner



The auto industry is one of the cornerstones of Japan's growth. MOL was the first shipping company in Japan to launch a car carrier service in 1965. Since then, as the pioneer of car transportation, MOL has worked to provide safe and reliable transport services to meet the needs of automakers, who are increasingly producing vehicles around the world.

MOL has established a solid position among the world's car carrier fleets not only through quality car transport services and fleet size, but also environmental consciousness. Our new environmental technologies include vessels with lower wind and water pressure resistance.

By transporting cargo that can be driven on and off vessels, from passenger cars to construction machinery, MOL supports comfortable lives for all.



Measuring 45.5 meters in height, large car carriers have 12 to 14 floors, making them like large parking buildings. Expert drivers load around 120 vehicles in 1 hour without damage. Their driving technique and powers of concentration make them quintessential professionals.

## Containerships

### A Balanced Network That Covers the Entire Globe



The containership business transports electrical products, auto parts, household furniture, food products and other products in containers. These transportation services efficiently carry products from optimal production sites around the world to consumers, supporting global logistics.

MOL's containership business provides a balanced network that covers the entire globe, from the key east-west routes linking Asia to North America and Asia to Europe, to the north-south or Intra-Asia routes. Furthermore, with our worldwide network and an integrated state-of-the-art IT system, we are also working to raise customer satisfaction. One recent initiative has seen us begin disclosing time arrival performance results.



If you laid all the containers on MOL's largest containership end to end they would stretch for approximately 50 km. Containerships efficiently transport large volumes of cargo in a single voyage, acting like a "conveyor belt" connecting the world.

## Ferry & Domestic Transport Business

### One of Japan's Largest Networks Supporting the Flow of People and Goods



The MOL Group offers one of Japan's largest ferry and domestic transport service lineups. Domestic carriers transport food, daily necessities, oil and other cargo, while ferries offer various amenities for an enjoyable voyage such as restaurants, spas and entertainment.

As a key part of Japan's modal shift, ferries and domestic carriers help reduce CO<sub>2</sub> emissions.

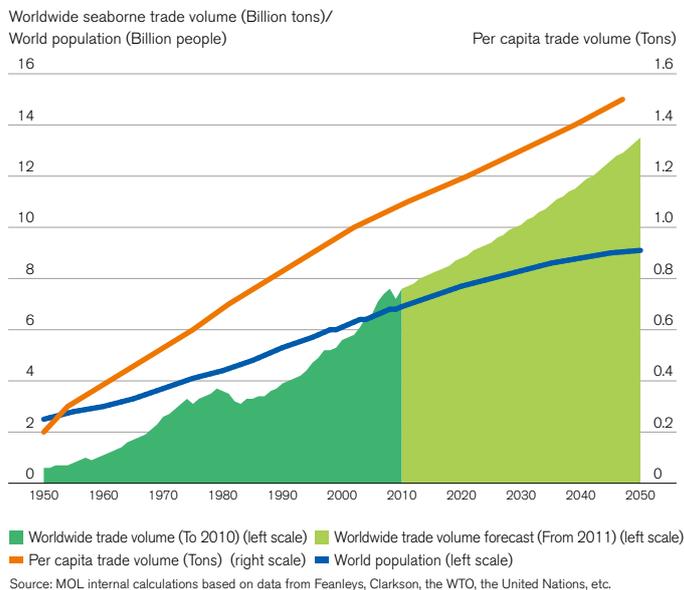
## Associated Businesses

### Various Peripheral Businesses Support Comprehensive Capabilities Centered on Marine Transport

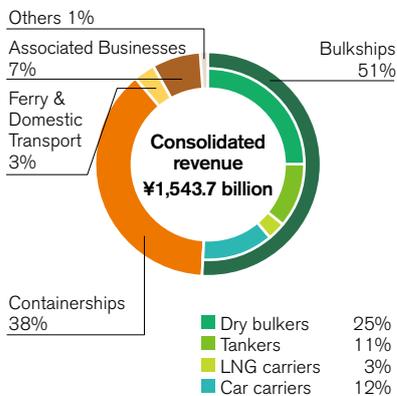


MOL conducts a host of associated businesses. These include marine-related businesses such as the cruise business that operates the *Nippon Maru*, tugboats, land transportation, warehousing, and marine consulting. MOL also conducts travel, civil engineering, real estate management, finance, trading, insurance, information systems and communications, temporary staffing, national oil stockpiling support and other businesses.

## Worldwide Seaborne Trade Volume



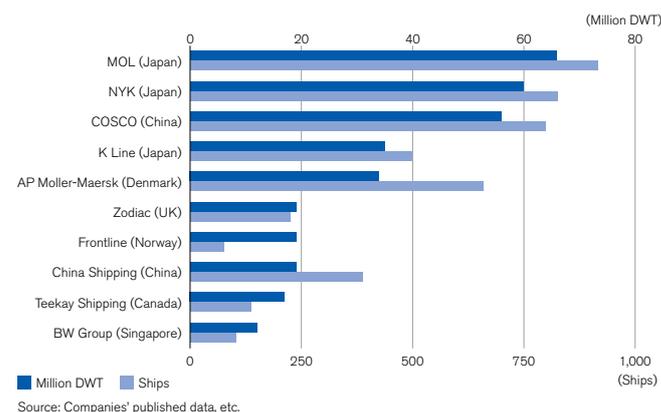
## Fiscal 2010 Consolidated Revenues by Segment



## Fleet (As of March 31, 2011)

Dry bulkers	374
Tankers	206
LNG carriers	72
Car carriers	114
Containerships	104
Ferries and domestic carriers	42
Cruise ships and others	5
<b>Total</b>	<b>917</b>

## World Major Carriers' Fleets (As of March 2011)



# An Excellent and Resilient Organization That Grows Continuously and Synergistically With Society

Fiscal 2011 is now upon us, the second year of MOL's three-year midterm management plan, "GEAR UP! MOL," which was drawn up while the global economy was still reeling from the financial crisis. The plan incorporates policies for achieving sustainable growth alongside society into our core strategies.

## MOL Group Midterm Management Plan (FY2010–FY2012) **GEAR UP! MOL**

**Long-term vision: To make the MOL Group an excellent and resilient organization that leads the world shipping industry**  
**Main theme: Challenge to Create New Growth**

### Strategy 1

#### Recovery From the Economic Crisis and Acceleration of Business Development in Growing Markets

Tailored responses to customers' needs in an expanding global market (Enhance business activities globally, etc.) (see page 6)

**Enhancing infrastructure to accomplish strategies**  
Business intelligence, risk management, ongoing improvement in financial condition, recruitment and development of employees

### Strategy 2

#### Enhancing Safe Operation

Safe operation has always been a cornerstone of MOL's strategy. Safety is not only essential to foster business growth; but also it helps to earn the public's trust and appreciation. Under "GEAR UP! MOL," we are aiming to improve operating safety to the highest level in the industry. (see page 8)

### Strategy 3

#### Environmental Strategy By offering transport solutions with a lower environmental burden, the MOL Group is evolving to meet today's demands.

MOL is reinforcing and emphasizing the advantages that ocean transport offers as an environmentally efficient mode of transportation in various ways, including development of the *Senpaku ISHIN* project. The MOL Group thus contributes to sustained global economic growth by offering transportation services that can respond to customers' needs while protecting the global environment. (see page 10)

## Recovering From the Economic Crisis and Accelerating Business Development in Growing Markets

The future holds uncertainty but also opportunities for growth. For MOL to reap the future's potential rewards, we must accurately interpret signs of change, make quick, sound decisions and take action accordingly.

With the emphasis on both aggressive and protective approaches, our system of corporate governance facilitates such action. The "GEAR UP! MOL" plan calls for us to further reinforce business intelligence, another key to achieving this end. Our ultimate goal, which stands as one of our corporate principles as well, is to meet and respond to our customers' needs and to this new era. For MOL to maintain a strong financial position and achieve further growth, we must quickly and accurately read signs of change in promising markets and the business climate to seize major business opportunities or utilize the information in risk management. This means collecting a broad range of information from as many sources as possible, efficiently sharing that information within the organization, and intelligently processing it so that it helps management make the right decisions. Taking action on the basis of decisions made in this way is how to effectively meet the needs of customers and contribute to the further development of the global economy and global community. It also makes it possible for MOL to overcome intense competition and achieve sustainable growth.

At present, chances for growth lie in the global markets, particularly in emerging countries. Whether we can build systems for anticipating changes and accommodating these markets to seize such opportunities will be a major factor in determining the look of the MOL Group 10 years down the road. It is critical that we recruit and develop diverse, talented people at the centers of business and trade and facilitate their performance as a part of our global workforce. And, no matter where in the world we do business, we must always comply with ethical norms in areas like human rights, labor and anti-corruption. It is therefore necessary to work to ensure rigorous compliance by the MOL Group in every activity in every corner of the world. We also have a responsibility to support the long-term growth of other countries and regions through activities that address a range of societal challenges, including eradicating hunger, improving education and medical care, and assisting recovery from natural disasters. This will be a cornerstone of MOL's sustainable growth.

## Enhancing Safe Operation: A Shipping Company's Responsibility to Society and the Basis of Its Competitiveness

Safe operation must be given the highest priority both for the safe and secure transport of customer cargo and for the protection of the marine environment, the stage on which we do business. Establishing a system for safe operation was the cornerstone of our previous midterm management plan. Under the "GEAR UP!

MOL” plan, which got underway in fiscal 2010, we aim to become the shipping company of choice, objectively recognized by customers and other stakeholders for having safe operation by making the system clearly visible to all.

Just after embarking on the new midterm plan, in May 2010, the iron ore carrier *Bright Century* collided with another vessel and sank. All crew members, including the crew of the other ship, were safely rescued, but the accident is deeply regrettable. To prevent a recurrence, we have already taken a variety of measures, including creating a training video based on an investigation into the causes of the accident. The video is being used at Safety Conferences held for MOL seafarers in Japan, the Philippines, India and Europe. What is most important though is that we learn from every incident—from major accidents to near-misses—and use those lessons to prevent a repeat of the same incident from happening again, that we oversee improvements using well-defined evaluative indicators, and that we disseminate all related information within the company and disclose it to the public as well.

Operational safety workshops for office staff held on a regular basis since fiscal 2010 represent one such initiative. We intend to achieve a record of safe operation recognized as world class by continuing to make internal control processes for ensuring safe operation more visible and attaining the “four zeroes”—an unblemished record in terms of serious marine incidents, oil pollution, fatal accidents, and cargo damage—and other numerical targets.

## Environmental Strategy for Helping Sustain Global Economic Growth

The *Senpaku ISHIN* project announced from September 2009 to April 2010 puts forth the concept of low-environmental impact car carriers, ferries and iron ore carriers capable of substantially lowering greenhouse gas emissions. We are happy to report that the project has garnered a great deal of interest from customers, shipbuilders and many other stakeholders.

The aim of the project is not to create some dream ship in the far-off future, but to show the type of ship that is technically possible in the near future. Immediately after making the announcement, MOL drew up a roadmap with development, testing and introduction schedules for each component technology involved in reducing the environmental impact of the concept ships, and we are now installing the technologies on actual vessels while conducting regular reviews that include cost-benefit analysis. Efforts are also being made to reduce the environmental impact in regular day-to-day vessel operations by accumulating expertise in highly environmentally-efficient operating techniques and proactively implementing slow steaming while taking steps to ensure safety and meeting customer requirements.

Global warming and other environmental issues are, in a sense, strongly at odds with global economic growth, especially in emerging countries, and the shipping industry in general, which seeks to accommodate increases in shipping demand associated with this growth. But MOL believes shipping companies must work to solve these issues by improving the environmental efficiency of their vessels, which will be the key to becoming the company of choice among stakeholders.



This report is being issued while areas in Japan devastated by the Great East Japan Earthquake of March 2011 struggle with an extremely challenging and prolonged recovery and reconstruction process. The earthquake and tsunami affected many people living in the region and many industries, which include some of MOL’s customers. The impact of the disaster still reverberates in production, power, trade and distribution. The MOL Group transported emergency vehicles and relief supplies from Japan and overseas and dispatched a cruise ship to help people impacted by the disaster. We also solicited donations within the group and received many offers to provide help from within Japan and from employees, crew members and partners overseas.

The earthquake has reaffirmed the societal mission of the shipping industry. It has made us acutely aware that our growth as a shipping company is inextricably linked to the ongoing development of society and that we are indelibly dependent on our customers, shareholders, business partners, employees, crew members and all our other stakeholders all over the world. The MOL Group renews its commitment to growing sustainably and harmoniously with society.

Koichi Muto  
President

# Feature 1: For Acceleration of Business

Emerging countries are playing an increasingly important role in the global economy. The ocean transport industry is involved in the import and export of resources, energy sources and products, which are indispensable to the nation-building process and industrial development in emerging countries as well as to improving the overall quality of life of citizens. By providing optimal services to these ends the MOL Group will also be able to achieve further growth. Acceleration of business development in growing markets is one of the overall strategies of our midterm management plan, "GEAR UP! MOL," which covers the period from fiscal 2010 to fiscal 2012. This feature section profiles some of the initiatives we are implementing based on this strategy and how we will extend them to help create sustainable and synergistic growth of both emerging countries and the MOL Group.



## Enhancing Business Activities Globally

### Meeting Growing Demand in Emerging Countries

The demands of emerging countries are varied, ranging from importing and exporting resources and energy to exporting products and building distribution infrastructure. By quickly ascertaining demand by strengthening business intelligence systems and other measures, MOL is accommodating that demand through timely investments and service expansion. Moreover, we have stationed more employees overseas to deal with this on the front line. Developing diverse and talented people in emerging countries and other centers of distribution and trade and facilitating their performance on the job will be critical to MOL's sustainable growth and will also provide additional employment opportunities in the respective countries.

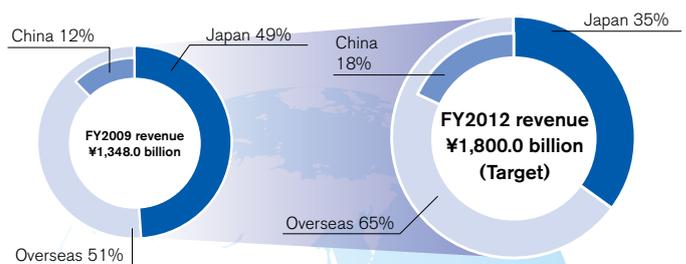
#### Strengthening Business Intelligence

We are working to strengthen business intelligence systems by holding in-house seminars and enhancing information, both quantitatively and qualitatively, via a shared portal site that can be accessed by MOL Group staff in Japan and overseas. These initiatives are designed to allow the group as a whole to more quickly meet demand in growth markets.

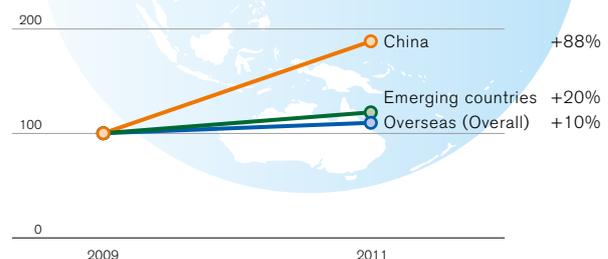


An in-house seminar

#### Rising Share of Overseas Revenue



#### Number of Employees Stationed Overseas



\* MOL (Non-consolidated) employees

\* 2009 base year of 100 for number of employees stationed overseas

\* Emerging countries are countries in Asia, Africa, South America and the Middle East

# Development in Growing Markets

Feature

**Brazil**  
Signed a long-term contract for transporting iron ore to China using VLCCs (300,000 DWT-class) with a major mining company. (November 2010)

**Chile and Peru**  
Transport of wheelchairs (February 2011)

**Paraguay**  
Transport of children's wheelchairs (February 2011)

- Major business activities in emerging countries
- Transport of aid supplies, etc. to emerging countries

With MOL accelerating business development in growing markets, we believe it is necessary for the entire MOL Group to rigorously comply with laws and social norms at the global level. Based on this commitment, we administered a survey in January 2011 to 58 Group companies overseas on awareness and practice of the Global Compact. The survey looked into the initiatives of these companies in the four areas covered by the Global Compact. The survey found that, in addition to complying with national laws and regulations, the companies have formulated their own rules of conduct, are fully respecting human rights and rigorously managing occupational safety and health, have established their own compliance rules, and have set up internal advisory service desks for consulting on and reporting human rights abuses. We found that adequate CSR-related practices are in place even in emerging countries like Brazil, India and the Philippines.

The results of this survey will be shared with MOL Group companies in Japan and overseas, in the hope that this will lead to even greater awareness and improved measures relating to CSR across the entire group.



The Global Compact emblem

## Helping Achieve the United Nation's Millennium Development Goals

### Contributing to Economic and Social Development in Emerging Countries

For a country to really take off as an emerging nation, education and medical care must first be widely available. Even in countries with burgeoning growth, the society there does not always reap the benefits and often remains mired in an array of problems.

One of the principles of MOL's social contribution activities is contributing to the United Nations Millennium Development Goals (see pages 43 and 44). Acting on the basis of this principle is the responsibility of a company that grows in step with global economic and social development. And, over the long term, development of the regions and countries we support will underpin our growth as well.

## Increasing and Ensuring Awareness of the Global Compact

### Rigorously Ensuring Compliance at the Global Level

With operations that span the globe, MOL participates in the Global Compact, promoted by the United Nations since March 2005, as a global corporate citizen. We work to support and practice the compact's 10 principles, which cover four areas: human rights, labor, the environment and anti-corruption.

## Voices from the Forefront

### Masaru Satose

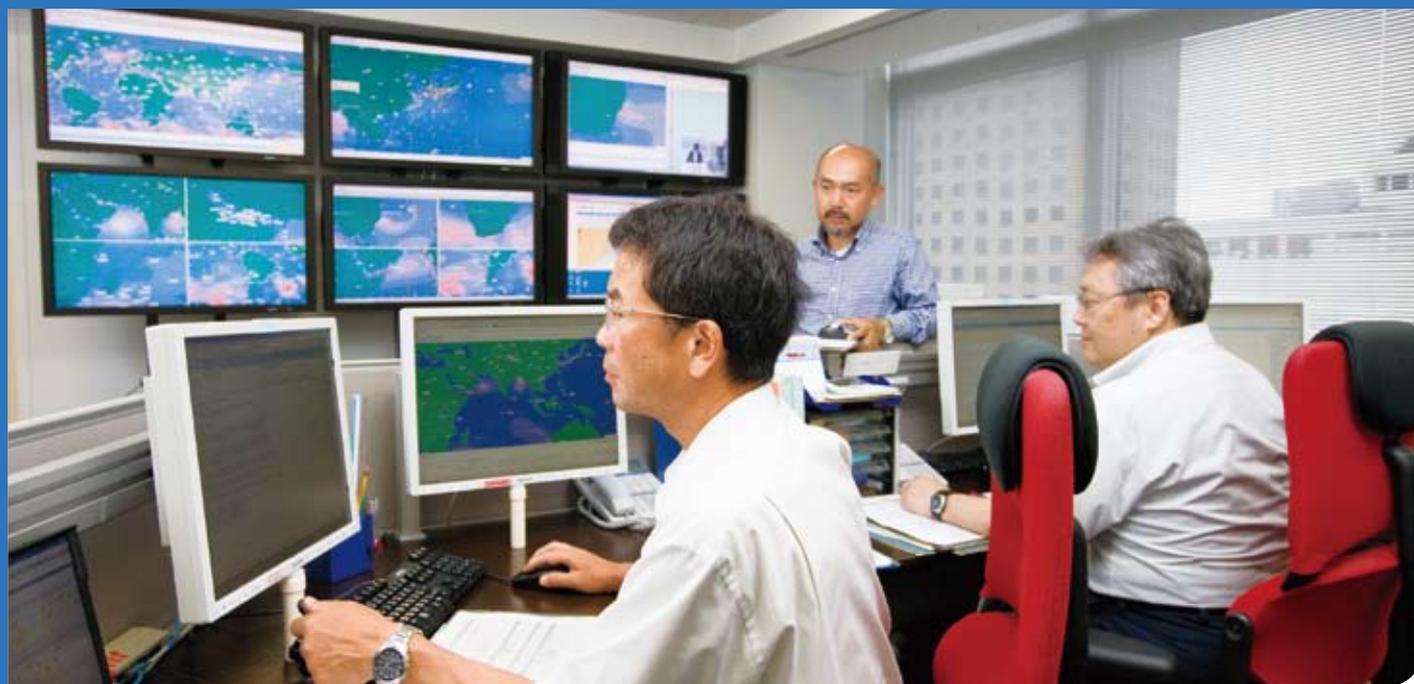
Managing Director, MOL (Singapore) Pte. Ltd.

The guidebook issued to our staff covers employment, compliance with antitrust law, rules of conduct, valuing diversity and dignity at work, occupational safety, business continuity planning, confidentiality, conflicts of interest, staff counseling, disciplinary actions, responding to discontent and other policies related to protecting human rights. (far right)



# Feature 2: Enhancing Safe Operation

Safe operation is a social mission for MOL as an ocean transport company, not to mention a theme of the utmost importance to become the company of choice among customers and other stakeholders. Our previous midterm management plan saw us put priority on refining our safe operation system. Under our current plan, "GEAR UP! MOL," we are building from this base with the aim of making our safe operation processes more visible, and becoming the world leader in safe operation.



## Making Processes for Realizing Safe Operation Visible

MOL is currently working to increase the visibility of safe operation processes in order to become a company that customers are confident in and to safely transport the cargo entrusted to us. Specifically, we have introduced objective numerical indicators for measuring safety levels and have set numerical targets based on them. Efforts are currently underway to achieve the targets.



1. Four zeroes (an unblemished record in terms of serious marine incidents, oil pollution, fatal accidents, and cargo damage)
2. LTIF\*<sup>1</sup> (Lost Time Injury Frequency): under 0.25
3. Operational stoppage time\*<sup>2</sup>: 24 hours/ship or below
4. Operational stoppage accident rate\*<sup>3</sup>: 1.0/ship or below

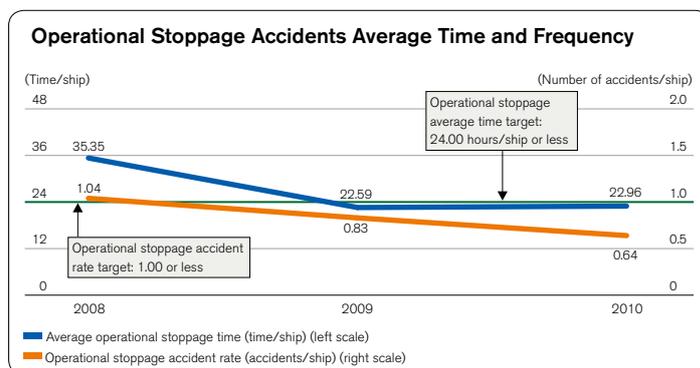
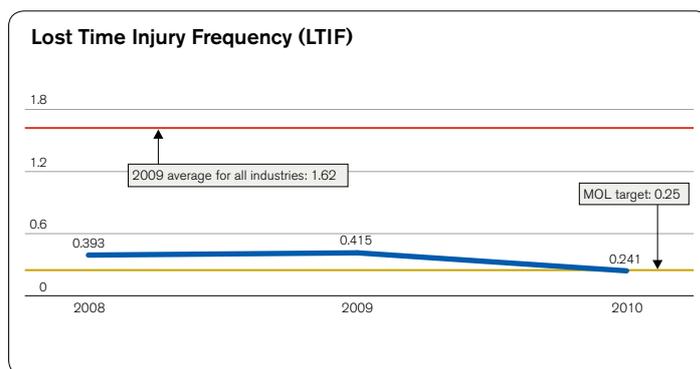
\*1. Number of work-related accidents per hour per one million people. Average for all industries (2009) was 1.62; for marine shipping industry, 1.38; for shipbuilding and repair, 1.27. (Source: 2009 Survey on Industrial Accidents issued by the Ministry of Health, Labour and Welfare)

\*2. Expresses the amount of ship operational stoppage time due to an accident per ship per year.

\*3. Expresses the number of accidents that result in ship operational stoppage per ship per year.

Our performance in these areas in fiscal 2010 was as follows.

1. Did not achieve. An iron ore carrier collided and sank in waters to the east of China's Shandong Peninsula in May 2010. Also, there were two fatal work-related accidents on charter vessels.
- 2-4: Achieved as follows:



# –Aiming to Become the World Leader in Safe Operation–

## Breaking the Chain of Errors\*

We continue to make improvements related to both seafarer training and ship facilities to break the chain of errors in which minor factors combine and ultimately lead to major maritime accidents.

In terms of seafarer training, we are working to improve the ability of seafarers to predict risk in order to break the chain of errors. To this end, we are reinforcing our OJT Instructor System, under which on-the-job training is provided by seasoned captains and chief engineers with ample experience in MOL ship operations. The instructors travel onboard each ship for a certain period of time to provide onsite safety training and technical instruction. We are also enhancing land-based education and training curriculums and programs. Further, we are working to raise safety awareness among seafarers by collecting information on close calls (risky incidents that came very close to causing a more serious accident) from each ship in operation and distributing that information to ships along with easy-to-understand photos and illustrations.

In terms of ship facilities, we are working to equip ships with error-resistant equipment. This involves promoting the fail-safe design concept (systems are designed to constantly operate safely even when trouble occurs due to operator error) by providing feedback to shipyards and equipment manufacturers on areas of non-conformance and areas in need of improvement while construction is still in progress and after delivery is taken.

\* Various factors lead to accidents like links in a chain.

## Development of IT for Ship Management

We will continue to promote greater use of information technology at ship management companies and on board ships and work to integrate ship management systems within the MOL Group. These efforts are geared to raising the efficiency of safe operation management processes between ships and ship management companies and to effectively sharing information on safe operation within the group.

## Enhancing Countermeasures Against Piracy and Terrorism

Pirates are not just a cinematic phenomenon. In 2010 alone there were 219 incidents of piracy and 48 ship hijackings in the Gulf of Aden—the entrance of an important shipping lane that connects the Indian Ocean with the Mediterranean Sea through the Red Sea and Suez Canal—and the surrounding waters off the coast of Somalia. Two Japanese navy escort vessels, patrol planes and other measures initiated in March 2009 to protect the shipping lane in the Gulf of Aden have reduced the number of incidents in the area by nearly half. However, pirates using merchant ships and fishing vessels that they have hijacked are becoming more active in a wide area



Regions with piracy incidents (red box on left is the Gulf of Aden and waters off Somalia; red dots are regular ships)

offshore of Somalia, all the way to the Arabian Sea and Indian Ocean, so the risk of an attack continues to increase.

MOL is working to strengthen ship security against the threats of piracy and terrorism and to improve risk management functions on land. The best solution is avoiding navigating through dangerous waters to the fullest extent possible. But in pirate-infested waters we increased the number of people on watch for 24-hour visual monitoring and also strengthened radar-based monitoring activities. We strive to avoid crises by detecting and discovering piracy at an early stage, making accurate predictions and assessments, initiating avoidance maneuvers quickly, and issuing rescue calls to MOL's Safety Operation Supporting Center and other related institutions. However, in March 2011, an MOL-operated oil tanker was attacked by pirates in the Indian Ocean, although the ship was not hijacked. In response, we are reinforcing our crisis management systems with facilities-related measures that include equipment and communication devices for preventing pirate boardings and additional education and training for seafarers.

Under the "GEAR UP! MOL" plan, we are also actively involved in environmental protection measures through safe ship operation and in acquiring and training human resources to foster the kind of sensibility and capability needed to break the chain of errors (see page 23 for details).



## New Initiative Responding to Serious Marine Incidents

In response to recent serious marine incidents, we have created a training video based on investigations of the causes and distributed it to the relevant departments and implemented measures to prevent recurrence, including crewmember training at Safety Conferences (see page 23 for details) and other venues.

In addition, operational safety workshops for office staff were initiated at the head office in November 2010 to widely disseminate information within the company on measures for reinforcing safe operations, case studies of incidents and measures based on them. The sessions will be held every quarter on an ongoing basis.

In June 2011, we produced a video entitled "Forging Ahead to Become The World Leader in Safe Operation" that introduces MOL measures to reinforce safe operation. The video is being distributed not only to company departments and MOL-operated ships but also to customers and other relevant outside parties in an effort to raise awareness within the company and promote greater visibility for safe operation measures.



DVD "Forging Ahead to Become The World Leader in Safe Operation"



Operational safety workshops for office staff

# Feature 3: Environmental Strategy

Our environmental strategy is one of the overall strategies laid out in the midterm management plan, "GEAR UP! MOL." It calls for evolving into a corporate group that meets today's demands by offering transport solutions with a lower environmental burden. A major pillar in achieving this goal is the *Senpaku ISHIN* project, our concept for next-generation vessels that will employ feasible technologies to reduce CO<sub>2</sub> emissions and other environmental loads. This report profiles developmental progress on core component technologies for the three series of *Senpaku ISHIN* concept vessels.

## Hybrid Car Carrier Slated for Delivery in 2012



Computer rendering of solar panels (approx. 160 kilowatts) on an existing ship

### ISHIN-I



#### Hybrid Car Carrier that Uses Renewable Energy

##### Features

- Zero emissions while in port and during loading and unloading
- 50% less CO<sub>2</sub> emitted while at sea

### Achieving Zero Emissions While in Port

As a part of efforts to develop CO<sub>2</sub>-reduction technologies, MOL is teaming with Mitsubishi Heavy Industries, Ltd. and SANYO Electric Co., Ltd. to conduct R&D on hybrid car carriers that use solar power generation systems. Solar power generation systems were installed on *Euphony Ace*, delivered in November 2005, and *Swift Ace*, delivered in May 2008, but before the end of fiscal 2011, we will complete development of a hybrid power supply system that combines a scaled-up solar power generation system with lithium-ion batteries. The system will be installed on a car carrier slated for delivery in June 2012. Zero emissions will be achieved by charging the lithium-ion batteries with electricity generated by the solar power system while at sea and consuming the electricity while in port, which will allow the diesel power generators to be shut off.

### ISHIN-II



#### Ferry that Uses LNG as Fuel

##### Features

- Use of LNG as fuel: By using liquefied natural gas (LNG) as fuel, the vessel has cleaner exhaust gases and greatly reduces CO<sub>2</sub> emissions.
- Use of shore power supply system: While in port and at berth, the ship uses electricity supplied from shore and rechargeable batteries to achieve zero emissions
- Emphasis on comfort
- CO<sub>2</sub> reduction: 50%

### Realizing the Use of LNG as Fuel

Compared to the fuel oils presently used by ships, liquefied natural gas (LNG) reduces CO<sub>2</sub> emissions by approximately 20% and lowers emissions of nitrogen oxide (NO<sub>x</sub>) and sulfur oxide (SO<sub>x</sub>), considered to be causes of acid rain and atmospheric pollution, by 70% to 90% or more. LNG is therefore known as a clean energy. It follows that switching the fuel used by ships from fuel oil to LNG will make them more environmentally friendly. The technology has already been established, but in Japan, ship and port regulations are not yet in place, so there have been no practical applications to date. In order to resolve all of the issues involved, MOL proactively attends committee meetings with the government, shipping companies, shipbuilders, gas utilities and others, as it works to make practical use of LNG fuel a reality as soon as possible.



## Voices from the Forefront

### Takahiro Hayakawa

Ship Design Group, Technical Division

Executing a project that organically combines two disparate industrial sectors—a large oceangoing vessel and lithium-ion batteries—is a major challenge. Establishing safety measures was particularly difficult. But thanks to effective teamwork, we are now projecting delivery of a hybrid car carrier in June 2012. It is our hope that expertise gained from the project will help lower the environmental impact of ships in the future.

(Photo: Fourth person from left)



Team Senpaku ISHIN

## ISHIN - III



### Very Large Ore Carrier With High-Efficiency Waste Heat Energy Recovery System

Features

- Waste heat energy recovery to assist propulsion
- Employs technologies to reduce CO<sub>2</sub> emissions even at low speeds, as well as during normal operation
- CO<sub>2</sub> reduction: 30%

### Pursuing Energy Efficiency on a Larger Scale

The diesel-type engines used on ships offer the best environmental performance of any engine. However, for a ship's engine to turn the propellers and move the ship forward, roughly one-quarter of the thermal energy inputted as fuel is wasted as exhaust gas. In recent years, progress has been made on technology for effectively utilizing the thermal energy contained in exhaust gas that is wasted. MOL itself continues to test technology for converting thermal energy in exhaust gas to electricity and technology for using electricity obtained from exhaust gas to help power the propellers. We are working with shipbuilders and engine manufacturers with the goal of installing waste heat recovery technology that builds on conventional advantages on an actual ship in two to three years.

## The Road to ISHIN Development Roadmap

ISHIN-I, -II, and -III employ many technologies other than the component technologies introduced here. We have created a roadmap for research, development and testing on all component technologies and regularly monitor progress toward early implementation on actual ships. The roadmap spells out the costs and benefits of component technologies that have reached the stage of practical application and encourages their adoption by divisions in charge of each type of ship.

### Development Roadmap for ISHIN Series Component Technologies (excerpt)

Component Technologies	FY2010 2H	FY2011 1H	FY2011 2H
Fuel additives	Deploy on ships		
Optimal trim operation	Verify navigation data	Consider expanding ship types	
Hybrid car carrier*	Develop hybrid system	Run field tests with small-scale hybrid system	Begin installing hybrid systems on actual ships
Technology for reducing NO <sub>x</sub> , SO <sub>x</sub> and PM in exhaust gases	Install test engine at MOL's Technology Research Center	Acquire basic data via trial operation with diesel oil	Acquire basic data via trial operation with heavy fuel oil

■ Implemented → Implementation scheduled

\* Research and development on hybrid car carriers has been selected to receive assistance from the Japanese Ministry of Land, Infrastructure, Transport and Tourism and receives support as a joint research theme with Nippon Kaiji Kyokai.

## Examples of Other Component Technologies Development of Fuel Additives

"TAICRUSH HD," a fuel additive developed jointly by MOL's Technology Research Center and TaihoKohzai Co., Ltd., is a key technology of the Senpaku ISHIN project. This additive helps to improve ignition performance and combustion efficiency, which are expected to reduce fuel consumption by as much as 1.5%. MOL is successively introducing the additive on its fleet of ships, allowing the company to also reduce CO<sub>2</sub> emissions.



Details of the component technologies can be found on the **Senpaku ISHIN** section of MOL's website

<http://www.mol.co.jp/ishin/en/index.html>



# Response to the Great East Japan Earthquake

We would like to express our heartfelt sympathies to those who lost loved ones in the Great East Japan Earthquake, and extend our best wishes to other affected people.

In this section we introduce crisis management measures implemented by MOL in the wake of the earthquake of March 11, 2011, support activities conducted for the disaster region, and our plans to contribute through our main business activities.

## Swift Response Based on Business Continuity Plan

The company has formulated a business continuity plan (BCP\*) documenting specific procedures to enable it to continue providing its core marine transport services without interruption, or quickly restore operations to pre-disaster levels in preparation for an unexpected event. In the event of an earthquake or other natural disaster, or outbreak of an infectious disease, MOL's highest priority is ensuring the safety of MOL-operated vessels and company personnel. MOL took the following rapid actions based on this plan in the aftermath of the recent disaster.

\* Business Continuity Plan: A plan that establishes response measures necessary for ensuring the continuity of operations when a disaster occurs.

### Earthquake Task Force and Support Headquarters

The day after the earthquake occurred, we established the Tohoku-Pacific Ocean Earthquake (Great East Japan Earthquake) Task Force and Support Headquarters, chaired by the president. In response to the massive damage done by the earthquake, we ensured business continuity by minimizing the damage to the MOL Group, while simultaneously establishing a system for providing rapid support for the disaster region.

### Confirming Safety of Operated Vessels

Immediately following the earthquake, all relevant personnel were assembled at MOL's Safety Operation Supporting Center (SOSC). The center, which is normally engaged in year-round, 24-hour monitoring of the position and movement of operated vessels and in providing information on abnormal weather, piracy and terrorism to individual vessels and other related parties, quickly went about confirming the safety of operated vessels and providing tsunami information. Vessels operated by MOL were not involved in any serious marine incidents resulting from the earthquake or the subsequent tsunami.



March 11 SOSC confirmed the damage status of each vessel immediately after the earthquake

### Verifying the Safety of Employees

We immediately verified the safety and well-being of all employees of MOL, their families and all employees of Group companies.

### Earthquake Response Manual

MOL has an established disaster and earthquake response manual and had been prepared for an emergency. At the head office building, we temporarily shut down the elevators and confirmed safety.

On the day of the earthquake, most of the trains in the Tokyo metropolitan area stopped running, so many employees stayed the night at our offices. Bedding, blankets and food supplies had been prepared in advance for this possibility.



March 11 Blankets handed out to employees unable to get home and forced to stay overnight at the office

### Group-level Support for Disaster Region

The MOL Group is conducting activities to help support the victims and to assist in the recovery of the disaster-stricken region. Our main activities are as follows:

#### Transporting JSDF Vehicles and Troops by Ferry

Group company MOL Ferry Co., Ltd. transported some 3,700 Japanese Self-Defense Forces (JSDF) troops and 1,260 emergency vehicles for providing relief to the disaster-stricken region. 4 ferries made a total of 10 trips from the port of Tomakomai to the port of Aomori from March 13 to March 22.



March 17 Sunflower Sapporo loading JSDF vehicles at the port of Tomakomai

### Free Emergency Support for Relief Supplies

Immediately after the earthquake, there were severe shortages of food and daily necessities in the disaster region. Drawing on our group network and transport capabilities, MOL procured relief supplies and delivered them free of charge to customers and municipalities in areas affected by the disaster. As of April 8, we had procured and delivered 19 10-ton truck loads of supplies to the stricken areas.



March 31 Loading relief supplies at the Ohi Logistics Center

### Free Transport of Relief Supplies from Abroad

Responding to requests for transport of relief supplies from overseas, MOL provided free transport services for supplies sent from other countries. We have transported the equivalent of 32 20-foot containers filled with drinking water, bedding, masks and other supplies to the disaster region (as of June 30, 2011) free of charge, as well as large quantities of building materials for temporary housing at special rates.

### Donations for Disaster Relief

1. MOL donated a total of ¥50 million for immediate disaster relief to Iwate Prefecture, Miyagi Prefecture, Fukushima Prefecture and the Japanese Red Cross Society.
2. Donations were solicited from executives, employees and seafarers in the MOL Group, and a total of approximately ¥63 million was raised and donated for relief and recovery efforts to the Japanese Red Cross Society and the Central Community Chest of Japan.

### Cruise Ship *Fuji Maru* Supports Relief Efforts

From April 11 to April 17, MOL arranged for the ocean-going cruise ship *Fuji Maru* to call in at several ports in Iwate Prefecture that were severely damaged by the tsunami: Ofunato, Kamaishi and Miyako. The *Fuji Maru* provided nutritionally-balanced meals for victims, a large public bath and private space in the form of cabins free of charge. A total of 4,451 people used these amenities.



April 11 The *Fuji Maru* arrives at the port of Ofunato



Providing an extensive variety of meals

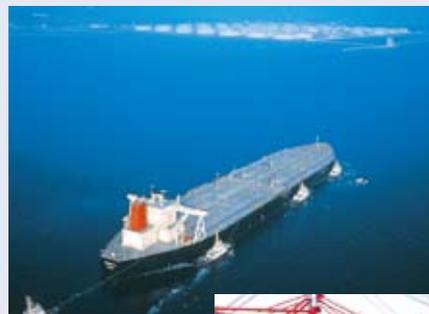


April 17 Being seen off at the port of Miyako by the local people

### Ongoing Initiatives Through Our Main Business

The Great East Japan Earthquake has had a major impact on business activities and daily living in the form of energy shortages, causing increasing demand for petroleum products and alternative energy sources like liquefied natural gas (LNG) and coal. Moreover, drinking water, housing materials and other supplies are being imported in large quantities. As one of the largest shipping companies in the world with a diverse fleet of LNG carriers, crude oil and petrochemical product tankers, dry bulkers, containerships and more, MOL has worked since the earthquake to meet this transport demand.

We will continue contributing to recovery and new growth through our main business—transporting resources, energy sources and products for Japan and other countries around the world.





# MOL's Approach to CSR



MOL's basic approach to corporate social responsibility is expressed in the MOL Group Corporate Principles. To put these principles into practice, the MOL Group meets the global transport demand through daily business activities and has also created a framework for CSR initiatives and strengthened those initiatives by setting annual targets. Under our midterm management plan, "GEAR UP! MOL," we will strive to make CSR initiatives even more progressive.

## 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.

## CSR Initiatives

In our view, CSR means conducting business management that adequately takes into account laws and regulations, social norms, safety and environmental issues, human rights and other considerations, and developing together with society in a mutual and sustainable manner while earning the support and trust of stakeholders, including shareholders, customers, business partners, employees and local communities.

### Relationships with MOL Group Stakeholders

Increase corporate value by strengthening profitability, timely and appropriate disclosure through proactive IR activities and so on.

Increase satisfaction by providing high-quality, reliable services and products and so on.

Shareholders

Customers

Business Partners

Build good relationships and share business opportunities through fair trade and so on.

MOL Group

Communities

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

Public Organizations

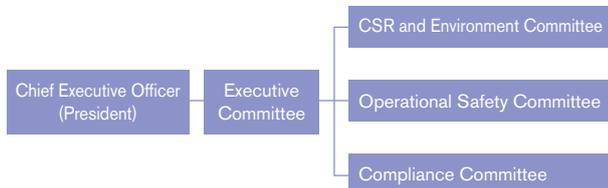
Pay tax, comply with laws and regulations, help promote industry and so on.

Employees

Increase employee satisfaction and recruit excellent personnel by providing and maintaining employment opportunities, respecting human rights, and offering occupational safety and health, education and training, and a workplace where employees can feel satisfaction and pride.

In order to fulfill these responsibilities, MOL deliberates on CSR-related policies and measures, primarily through the three committees under the Executive Committee.

### Organizational Framework for CSR Initiatives



The CSR and Environment Committee is chaired by the executive vice president and works to promote CSR throughout the MOL Group by setting and reviewing annual targets for initiatives related to compliance, corporate governance, accountability, risk management, safe operation, human rights, care for employees and seafarers, social contributions and the environment. The CSR and Environment Office in the Corporate Planning Division administers the committee and promotes CSR.

In fiscal 2010, the committee was convened three times and deliberated on progress with CSR targets and environmental targets set in the "GEAR UP! MOL" midterm management plan, as well as the status of environmental management, initiatives to reduce environmental impact, accommodation of environmental laws and regulations, and other matters.

## Participating in the UN Global Compact

MOL has participated in the United Nations Global Compact since March 2005. The Global Compact was first proposed by then UN Secretary-General Kofi Annan in 1999 and formally initiated the following year. Member companies are required to support and practice 10 principles in four areas: human rights, labor, the environment and anti-corruption. Sharing the same values as our Rules of Conduct, which was established as a set of guidelines for executives and employees, MOL's participation in the Global Compact signals internally and publicly our commitment to these principles. The MOL Group, which does business internationally, intends to work to raise awareness of CSR among employees in Japan and abroad by making the Global Compact widely known and ensuring that it is rigorously practiced. (Please refer to page 7 for details.)



The Global Compact emblem

### CSR Activities Policy During the Midterm Management Plan, "GEAR UP! MOL"

1. Stepping up "CSR that protects MOL" and "CSR that fulfills MOL's responsibility"
2. Pursuing "CSR activities that benefit both the company and society"
3. Expanding CSR activities worldwide and throughout the MOL Group

In the past, many companies, particularly in Japan, have adopted an approach towards CSR that has focused on measures such as good governance and careful adherence to regulations to protect them from accidents and impropriety. Based on this, they have proceeded to practice CSR that fulfills their responsibilities. Namely, to advance CSR, companies, as members of society, have tried to strike an effective balance in allocating the profits and utilizing the assets they generate, by protecting the environment, contributing to the local community, and paying a reasonable return to stakeholders. These two categories represent the foundation level of CSR. In MOL's case, CSR activities are founded first and foremost on the establishment of good corporate governance and compliance, the creation of Rules of Conduct and measures to eliminate maritime accidents, development of environmental management systems and so on. The company also strives to use its resources effectively to make a contribution to society. In this way, MOL has addressed the immediate tasks of effective CSR.

In the years ahead, MOL has decided to take the next step forward in CSR by instilling an even stronger awareness of and pursuing "CSR activities that benefit both the company and society," while identifying and supplementing any areas where the fundamental level of CSR has been inadequate.

The midterm management plan, "GEAR UP! MOL," includes a number of CSR-related goals. For example, by enhancing safe operation, the company aims to become the world leader in safe operation and make safety measures visible. In addition, we have adopted a new environmental strategy with the goal of answering the demands of the times by offering transport solutions with a lower environmental burden. These safe operation and environmental protection policies will help persuade customers to select MOL, and thus are a component of the company's efforts to achieve sustainable growth. In that sense, CSR policies are closely related to the company's business strategies. By establishing a CSR policy that is clearly understood and embraced by customers, employees, seafarers, and society as a whole, and also is recognized and evaluated favorably by shareholders and investors, MOL will be the company of choice. This in turn will allow the company to make even greater contributions to society, generating a positive cycle that builds synergy, supports sustainable growth and benefits both the company and society.

One other strategic goal of "GEAR UP! MOL" is to accelerate business development in growing global markets. Therefore, we are striving to ensure that CSR activities and policies are disseminated throughout the MOL Group and are a feature of operations both in Japan and overseas.

## Current CSR Activities in the MOL Group

### Activities in Fiscal 2010

Fiscal 2010 was the inaugural year of our current three-year midterm management plan, "GEAR UP! MOL," which adopts "enhance safe operation" and "environmental strategy" as overall strategic goals of MOL under the main theme of "Challenge to create new growth." This plan marks the first time that MOL has set medium-term policies and targets for CSR. In fiscal 2010, the company worked to achieve its single-year targets based on these medium-term policies and targets.

As a result of these efforts, we achieved all of our targets across a broad range of fields, from compliance and accountability to employee health and social contribution activities. We also achieved much in terms of safe operation, including tough numerical targets that we set in accordance with our policy of making our performance visible. That said, in May 2010, there was a marine accident involving an MOL-owned iron ore carrier. Because of this accident, we unfortunately did not achieve the "four zeroes"—an unblemished record in terms of serious marine incidents, oil pollution, fatal accidents, and cargo damage. We acted immediately to design and implement countermeasures, however.

In the area of environmental preservation, we boiled our environmental strategy down into specific targets. And we produced results. For instance, we created and implemented a roadmap for our *Senpaku ISHIN* project, thoroughly practiced ECO SAILING, enhanced initiatives by MOL Group companies, and raised awareness among employees with regard to biodiversity. Among our accomplishments in fiscal 2010, we reduced CO<sub>2</sub> emissions per ton-mile (on a non-consolidated basis) by 9.9% versus our goal of a 1% reduction compared with fiscal 2009. One reason for this much larger reduction was a rebound in trade volume in step with economic recovery. But I also put it down to initiatives implemented to date such as the aforementioned *Senpaku ISHIN* project, greater use of slow steaming and the introduction of larger vessels.

In June 2011, MOL became the first company in the ocean shipping industry to acquire the "DBJ Environmental Ratings" from the Development Bank of Japan Inc. (DBJ). MOL received the highest rating from DBJ, which cited MOL's "particularly forward-looking approaches to environmental consciousness."

### Activities Planned for Fiscal 2011

Having achieved our goals in fiscal 2010, we have set new goals for fiscal 2011. In addition to refining environmental activities, we are determined to achieve the "four zeroes" in terms of safe operation. Furthermore, using the results of a questionnaire sent to overseas offices concerning the UN Global Compact, we will also work to embed CSR in our organization worldwide. By repeating the PDCA cycle as we have been doing, we aim to achieve our medium-term targets and earn recognition from our stakeholders. We are convinced that this will enable us to continuously grow with society.

**Toshitaka Shishido**, Chairman of the CSR and Environment Committee Representative Director, Executive Vice President





# CSR Program Targets and Results



In order to put our CSR Activities Policy during the midterm management plan, "GEAR UP! MOL" into practice, we have established midterm CSR program targets (FY2010–12) as well as targets for each fiscal year, and are currently working to achieve them. New targets were established for fiscal 2011 based on relative achievement of fiscal 2010 targets. The MOL Group is striving to grow with society in a sustainable and synergistic manner through achievement of these midterm CSR program targets.

	Objectives of Midterm Management Plan (FY2010–12)	FY2010 Targets
<b>Overall Strategy</b>	<ol style="list-style-type: none"> <li>Stepping up "CSR that protects MOL" and "CSR that fulfills MOL's responsibility"</li> <li>Pursuing "CSR activities that benefit both the company and society"</li> <li>Expanding CSR activities worldwide and throughout the MOL Group</li> </ol>	
<b>Compliance</b>	<p><b>Ensure strict compliance world wide/Group-wide and strengthen systems that support this</b></p> <p><b>Strengthen systems for early detection and rectification of non-compliance</b></p>	<ol style="list-style-type: none"> <li>Run e-learning and other programs in 3 high-compliance risk fields (antitrust law, insider trading and taxation)</li> <li>Hold legal insurance courses at the head office at least once a year</li> <li>Administer legal courses for MOL Group companies in Japan (2 times) and overseas</li> <li>Raise awareness of best practices, with a focus on MOL Group companies</li> <li>Begin enhancing a worldwide legal risk management network</li> <li>Communicate Rules of Conduct at new employee training</li> <li>Share specific case studies with related divisions</li> </ol>
<b>Corporate Governance, Risk Management</b>	<p><b>Effectively administer MOL's distinctive system of corporate governance</b></p> <p><b>Strengthen systems for risk management and business intelligence (BI) that support sustainable growth</b></p> <p><b>Establish and enhance business continuity planning (BCP)</b></p> <p><b>Develop balanced relations with stakeholders</b></p>	<ol style="list-style-type: none"> <li>Hold discussions on strategies and long-term vision at board meetings with attendance of outside directors 10 times a year, in principle</li> <li>Establish and institute new investment standards, business exit rules, and methods for clarifying maximum risk levels</li> <li>Establish position of chief intelligence officer, build an intelligence network, etc.</li> <li>Create BCP for earthquakes and communicable diseases</li> <li>Hold BCP drills</li> <li>Devise measures for strengthening engagement with suppliers and transparency in relationships with them</li> </ol>
<b>Accountability</b>	<p><b>Continually practice accurate, timely disclosure for shareholders and investors</b></p> <p><b>Promote stakeholder understanding of the midterm management plan, which is focused on growth, safe operation and the environment</b></p> <p><b>Develop the trust of shareholders and investors regarding the sustainability of our business performance</b></p> <p><b>Strengthen world wide/Group-wide responsiveness regarding disclosure in emergencies</b></p> <p><b>Establish a reputation as the leading company in the shipping industry among business professionals in Japan and overseas</b></p>	<ol style="list-style-type: none"> <li>Strive to eliminate corrections to disclosures</li> <li>Hold briefings for investors in the first six months after announcement of the midterm management plan</li> <li>Increase the number of IR events for emerging markets in Asia experiencing rapid growth</li> <li>Conduct effective publicity for initiatives in the midterm management plan</li> <li>Further improve disclosure and transparency related to distinctive ocean shipping portfolio management</li> <li>Conduct IR activities that proactively respond to changing conditions (International Financial Reporting Standards, business environment, etc.)</li> <li>Conduct media handling drills during emergencies once in Japan (run by Public Relations Office) and at least twice overseas</li> <li>Increase exposure in mass media as well as business journals</li> </ol>
<b>Safe Operation, Service Quality</b>	<p><b>Realize world's best level of safe operation and transport quality</b></p>	<ol style="list-style-type: none"> <li>Of the four zeros, achieve zero serious marine incidents, zero oil pollution, and zero serious cargo damage</li> <li>Achieve target operational down time per vessel of 24 hours/year or less</li> <li>Achieve targets for Phase III (started October 2009) of Safe Operation Management Structure through the following measures               <ul style="list-style-type: none"> <li>Measures to raise seafarer skill levels to break links in any potential error chain, incl. continuously updating BRM drills*2 and expanding them overseas</li> <li>Measures to improve ship facilities rooted in the fail-safe concept, based on feedback from vessels in operation</li> <li>Measures to improve ship management to raise safety levels through more advanced IT, well-established PDCA cycles and other initiatives</li> <li>Measures to improve frontline capabilities for safe operation and cargo handling by enhancing SOSOC*3, vessel inspections and the Port To Port Boarding Audit Support System</li> </ul> </li> </ol>

Legend: ● Achieved ○ Generally achieved △ Partially achieved ● Did not achieve (target period/content changes)

FY2010 Results

FY2011 Targets

FY2010 Results		FY2011 Targets	
○	Conducted e-learning programs on antitrust law and insider trading. A program on taxation was not conducted after reconsideration	1)	Run e-learning programs in high compliance risk fields (antitrust law and insider trading)
○	Conducted legal insurance courses	2)	Hold legal insurance courses at the head office at least once a year
○	Held legal courses in Japan twice (in Tokyo and Osaka). Instructional video posted on the MIP <sup>1</sup> for Group companies overseas	3)	Administer legal courses for MOL Group companies in Japan (2 times) and overseas
○	Held a Group Executive Committee meeting in September to inform and share the Best Practice	4)	Raise awareness of best practices, with a focus on MOL Group companies
○	Ran e-learning program on antitrust law for officers and employees of overseas affiliates through the MIP <sup>1</sup> . Program taken by 3,451 people at 43 companies (March–April 2011)	5)	Revise Compliance Rules and strengthen recurrence prevention system
○	Communicated at new employee training in April (land-based employees) and October (seagoing employees)	6)	Communicate Rules of Conduct at new employee training
●	Specific case studies not shared due to lack of appropriate cases	7)	Establish external compliance report desk and raise awareness of it
●	5 times (not achieved due to priority being given to urgent agenda items)	1)	Hold discussions on strategies and long-term vision at board meetings with attendance of outside directors 9 times a year, in principle
		2)	Enhance advance briefings on board meeting agenda items for outside officers to further enhance deliberations by the board
○	Only established new investment standards; the rest not conducted	3)	Enhance and rigorously implement fleet data management and foreign currency flow management
○	Launched BI system using the MIP <sup>1</sup> . Revamped intelligence officer position and created business intelligence managers in each division	4)	Foster a corporate culture that works to acquire beneficial information (hold BI training sessions twice, hold theme-based seminars 3 times, extend the MIP <sup>1</sup> platform to mobile devices, and establish new BI page on the MIP)
○	Created (Completed March 2011)	5)	Implement backup measures for the BCP (develop information systems, etc.)
●	BCP drills were not conducted because the BCP wasn't completed until the end of the fiscal year	6)	Conduct drills using satellite offices
△	Conducted a questionnaire on the Global Compact to overseas sites and obtained views	7)	Begin considerations for supplier CSR guidelines
●	There was 1 correction in a total of 39 disclosure documents (revision disclosed immediately after it was found)	1)	Strive to eliminate corrections to disclosures
○	Held roundtable meetings with the president on the midterm plan immediately after announcement of the plan	2)	Hold president roundtables and seminars. Plan and hold tours of the SOS <sup>3</sup> and other MOL facilities
○	Held an IR event in Singapore for Asian investors (1 time)	3)	Increase the number of IR events for Asian investors to appeal to investors in the emerging markets in Asia that are experiencing rapid growth
○	Held tour of SOS <sup>3</sup> for sell-side investors (1 time) and worked to promote understanding of safe operation initiatives	4)	Make revisions to fleet expansion plans, etc. during midterm plan period depending on changes in business environment and progress levels, and disclose revisions to the public
		5)	Include features on growing markets and safe operation—pillars of the midterm plan—in annual report based on progress levels
○	Continued to promote the characteristics of MOL's fleet portfolio through meetings with investors (Utilized meetings to emphasize MOL's positive figures for fiscal 2009 when competitors were in the red)	6)	Qualitatively improve disclosure of information promoting the growth potential of ocean transport and MOL's distinctive ocean transport portfolio management
		7)	Dispel concerns of investors through disclosures in line with changes in business trends and the business climate (including information related to IFRS and other accounting standards)
○	Discussion session held with investors on IFRS; specifically, problems and points of debate surrounding the impact of moving time charters onto the balance sheet	8)	Conduct IR activities in Japan and overseas based on the above and increase the number of events
△	Achieved in Japan; carried forward to next fiscal year for overseas	9)	Hold drills at least twice a year on handling the media in emergencies (run by Public Relations Office)
○	Achieved 1.16 times more postings than the previous year	10)	Increase exposure in mass media as well as business journals by 5% from the previous fiscal year
●	There was an incident involving an iron ore carrier in the waters to the east of China's Shandong Peninsula (May 2010). In response, we created a DVD based on investigations of causes and distributed it to relevant departments to prevent recurrence, and conducted crewmember training at Safety Conferences. Held operational safety workshops for office staff twice at the head office	1)	Of the four zeros, achieve zero serious marine incidents, zero oil pollution, and zero serious cargo damage
○	Operational down time per vessel of 22.96 hours; achieved target	2)	Achieve target operational down time per vessel of 24 hours/year or less while aiming for further reduction
○	Continually updated BRM drills <sup>2</sup> and extended the drills overseas, launched risk prediction and sensitivity training as a new form of training, gave presentations on accident case studies at Safety Conferences, and communicated accident prevention measures in a timely manner based on near-miss statistics	3)	Achieve targets for Phase IV (started October 2010) of Safe Operation Management Structure through the following measures: —Hold Safety Conferences 4 times worldwide. Hold operational safety workshops for office staff 4 times
○	Started getting feedback from vessels on ways to improve vessel equipment based on fail-safe concept		—Visit at least 300 vessels for operational safety campaigns (280 in FY2010), and have corporate officers visit at least 50 vessels (37 in FY2010)
○	Selected a system (October 2010), and IT Project Team began considering specifications		—Conduct BRM drills <sup>2</sup> and SHS drills <sup>4</sup> based on established drill scenarios and new simulator
○	Established new Dry Cargo Ship Group in the Marine Safety Division (June 2010) and strengthened system for vessel inspections. Further enhanced OJT Instructor System <sup>5</sup> in place of the Port To Port Boarding Audit Support System		—Prevent accident recurrence through timely reporting and dissemination of information on near-misses and accidents
			—Formulate policies for improving vessel equipment based on the fail-safe concept
			—Accelerate and promote increased efficiency of vessel-land operations through introduction of an advanced IT system and share information better
			—Implement FMS <sup>6</sup> at the SOS <sup>3</sup> for domestic carrier and ferry movements

(Continued on next page)

	Objectives of Midterm Management Plan (FY2010–12)	FY2010 Targets
<b>Care for Human Rights, Employees and Seafarers</b>	<b>Raise human rights awareness in Japan and overseas, and ensure human rights are protected</b>	1) Enhance human rights training embedded in employee training programs and establish a new E-Learning course on human rights 2) Conduct a questionnaire for overseas sites on the Global Compact
	<b>Enhance the personnel system to further motivate employees and enable them to demonstrate their abilities</b>	3) Review the personnel system
	<b>Reduce overtime work and develop workplace conditions that instill peace of mind in employees in line with an individual's stage of life</b>	4) Reduce overtime work by 10% compared to FY2009 5) Consider mechanisms for incorporating overtime hours management into performance reviews of managers 6) Use of at least 10 days of annual leave (7.6 days used on average in FY2009) 7) Use of all 7 special summer vacation days (5.2 days used on average in FY2009) 8) Institute program for working shorter hours
	<b>Enhance the employees' health management system and risk management system</b>	9) Enhance system for preventing physical/mental health issues 10) Establish procedures manual for dealing with new flu viruses in line with virulence levels and rates of infection 11) Review overseas safety management manual 12) Track Lost Time Injury Frequency (LTIF), including at Group companies
	<b>Improve occupational safety and health and welfare programs for seafarers</b>	13) Achieve zero fatal worker accidents, one of the four zeroes 14) Achieve Lost Time Injury Frequency (LTIF) of 0.25 or less 15) Prepare for early adoption of the Maritime Labour Convention, which stipulates shorter on-board working hours 16) Install fleet broadband (high-speed Internet access on ships)
	<b>Foster our own multinational seafarers and employ them as core seafarers</b> <b>Provide employees and seafarers with a sense of pride and joy from working at the company</b>	17) Enhance scholarship programs, internships and drill facilities (seafarer training sites, the training ship) 18) Fully establish program for recognizing outstanding seafarers 19) Effectively utilize Japanese/English company newsletter and intranet, etc.
<b>Environmental Measures</b>	<b>Evolve into a corporate group that meets today's demands by offering transport solutions with a lower environmental burden</b>	(See pages 26 to 29 for "Environmental Targets and Results")
<b>Social Contribution Activities</b>	<b>Implement principled social contribution activities (tackle social issues around the world)</b>	1) Re-develop and expand activities in line with the UN Millennium Development Goals 2) Increase activities that help protect biodiversity 3) Increase activities that contribute to local communities
	<b>Enhance social contribution activities drawing on the company's resources</b>	4) Establish budgets and criteria for transporting aid supplies and expand on this basis
	<b>Conduct social contribution activities integrated with business activities</b>	5) Expand activities in the world's emerging countries 6) Consider taking part in fair trade, etc.
	<b>Expand social contribution activities participated in by employees and seafarers in Japan and overseas</b>	7) Establish new system for proposals on the MOL Group's social contribution activities 8) Increase participation by employees, seafarers and cadets (training ship)
<b>Response to the Great East Japan Earthquake</b>		

\*1 MOL Group Information Portal (MIP). A portal site accessible by MOL Group employees worldwide.

\*2 Bridge Resource Management (BRM) drills. These drills involve recreating past incidents with a simulator and learning how to respond.

\*3 Safety Operation Supporting Center (SOSC).

\*4 Ship Handling Simulator (SHS) drills. These drills are conducted with a life-like simulator that recreates an actual ship using a large screen.

\*5 On-the-job Training (OJT) Instructor System. Under this system, highly experienced captains are deployed to vessels to conduct inspections and training.

\*6 Fleet Management System (FMS). The system supports safe vessel operations by continually displaying the movement of all operated ships on monitors along with information on weather conditions, ocean conditions and various types of safety information.

Legend: ● Achieved ○ Generally achieved △ Partially achieved ● Did not achieve (target period/content changes)

**FY2010 Results**

**FY2011 Targets**

○	Conducted human rights training. Revised implementation policy for e-learning after consideration	1) Continue and strengthen activities for fostering human rights awareness (conduct training for all levels in the company and promote seminar opportunities for personnel who are not human rights specialists)
●	Conducted February 2011	2) Identify issues based on the results of the questionnaire for overseas sites on the Global Compact and implement measures
○	Provided longer child-care leave than required by law, etc.	3) Review the personnel system to further motivate employees and enable them to demonstrate their abilities
●	FY2010 result: 42 hours (1% increase year on year)	4) Introduce new measures to reduce overtime work by 10% from the previous fiscal year
○	Introduced from FY2011	5) Use of at least 10 days of annual leave (7.1 days used on average in FY2010)
●	FY2010 result: 7.1 days used	6) Use of all 7 special summer vacation days (5.3 days used on average in FY2010)
●	FY2010 result: 5.3 days used	7) Revise and execute program for complying with Act for Measures to Support the Development of the Next Generation
○	Introduced in June 2010	8) Further strengthen response to globalization (conduct training to develop core personnel at overseas Group companies and other measures)
		9) Strengthen career development program to support job performance by women managers
		10) Provide support for job performance by people with disabilities
		11) Provide support for job performance by seniors
○	Established Health Care Management Unit position. Provided mental healthcare for new seagoing employees and mental health seminars	12) Strengthen and enhance health management systems for prevention and early response
△	Completed draft version. However, final formulation and approval of the BCP was delayed (as mentioned above), so not formulated and established (approved internally) yet	13) Enhance interview-based instruction, consultation and health education to promote health
○	Completed revising content (plan to print and distribute in FY2011)	14) Support health management for overseas workers
○	Calculated LTIF for MOL's land-based operations and domestic Group companies	15) Establish and distribute communicable diseases manual
		16) Strengthen safety management systems and conduct drills
		17) Continue calculating LTIF, including for Group companies
●	2 incidents occurred involving charter vessels (as response measures, we will strengthen accident prevention measures, including actively conducting vessel visits and instructional activities with an emphasis on preventing human injury)	18) Achieve zero fatal worker accidents, one of the "four zeroes"
○	Achieved target with LTIF of 0.241	19) Maintain LTIF of 0.25 or less
○	Launched task force, identified issues and formulated response measures	20) Continue preparing for adoption of the Maritime Labour Convention, which stipulates shorter on-board working hours
○	Installed on a total of 96 vessels, including tankers, dry bulkers and LNG carriers	21) Continue installing fleet broadband, and consider a next-generation communication system that includes health and welfare and test on actual ships
○	Partially revised scholarship programs and enhanced drill curriculums at drill facilities (seafarer training sites and the training ship)	22) Partner with universities in the Philippines with maritime science departments and train select third-year students at MOL's training centers
○	8 people were selected and 5 were honored in 2010	23) Fully establish and utilize program for recognizing outstanding seafarers
○	Created new English-language company newsletter posted on ship wall-hung bulletin boards in order to make it more readily available to seafarers on ships	24) Make effective use of the company intranet, Japanese/English company newsletters and DVDs
○	Expanded transport of relief provisions in line with UN Millennium Development Goals. Selected additional projects from among proposals solicited under the proposal system	1) Continue and deepen existing activities in line with Millennium Development Goals, including transport of relief provisions, and consider and implement new activity proposals selected in FY2010
○	Strengthened partnerships with beach cleanup NGOs. Selected projects from among proposals solicited under the proposal system	2) Expand activities worldwide to contribute to conservation of biodiversity and protection of the natural environment
○	Conducted support activities for disaster regions, including areas affected by the Great East Japan Earthquake. Selected projects from among proposals solicited under the proposal system	3) Consider and implement new activity proposals selected in FY2010
○	CSR and Environment Committee established policies and budget in May 2010	4) Continue and deepen existing activities, and consider and implement new activities, including a field trip program that utilizes marine shipping facilities
○	Expanded region (emerging countries) targeted for transport of relief provisions, etc. Selected projects from among proposals solicited under the proposal system	5) Consider and implement new activity proposals in emerging countries selected in FY2010
○	Selected projects from among proposals solicited under the proposal system	6) Provide feedback on social contribution activity proposals of Group companies
○	Conducted in October 2010	7) Increase participation in existing activities, including beach cleanups
○	Conducted major fundraising project throughout the MOL Group to support people affected by the Great East Japan Earthquake. Also increased participants in the UN World Food Programme in Japan and environmental protection activities in Thailand	8) Consider beach cleanup around the port of Kashima
		Fulfill social responsibilities related to restoration and recovery from the Great East Japan Earthquake
		-Contribute through business activities, including early resumption of port calls to disaster-hit ports and transport of recovery supplies
		-Conduct social contribution activities that help people affected by the disaster and help in the restoration and recovery of the disaster-stricken region
		-Ensure safety of seafarers, etc. in connection with nuclear damage, conduct initiatives to dispel rumors, eliminate anxieties among seafarers, etc., and help maintain distribution
		-Actively participate in electricity conservation efforts



# Corporate Governance, Compliance and Accountability



MOL has implemented a series of management reforms, established its Rules of Conduct and taken other steps to put in place a corporate governance structure and compliance system that is optimal for realizing the ideas set forth in the MOL Group Corporate Principles. Moreover, by vigorously fulfilling our accountability obligations, we are working to cultivate a sense of trust in MOL's sustainable growth.

## Corporate Governance

### Basic Concept of Corporate Governance

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

### Clarifying Each Governance Function

The Board of Directors comprises seven internal and three outside (independent) directors (as of July 2011). Outside directors receive reports on important issues every time, providing a framework that allows the supervisory functions of outside directors to work effectively.

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

The Financial Instruments and Exchange Act came into force in fiscal 2008 and requires an assessment and report of the internal control system for ensuring the effectiveness of financial reporting. MOL conducts such assessments led by the Internal Audit Office.

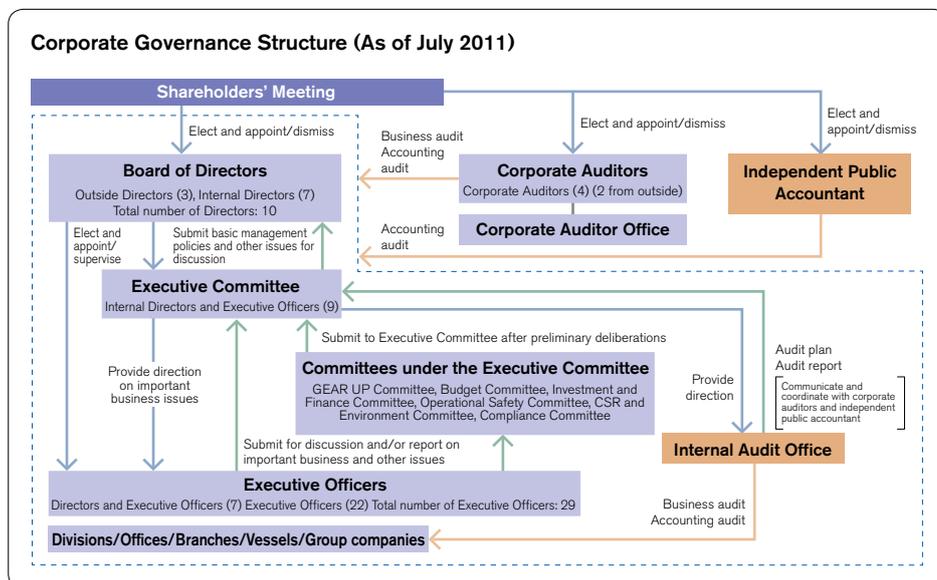
As a result, MOL has submitted an internal control report containing management's assessment that internal controls over financial reporting at MOL are effective to the Kanto Local Finance Bureau in Japan every year since June 2009. Details of these internal control reports were confirmed to be appropriate in the internal control audit report by the external auditors.

### Business Continuity Plan Formulation

In the event of an earthquake or other natural disaster, or outbreak of an infectious disease, MOL's highest priority is ensuring the safety of MOL-operated vessels and company personnel. The company has formulated a business continuity plan documenting specific procedures to enable it to continue providing its core ocean transport services and quickly restore operations in the unlikely event that they are suspended. This business continuity plan establishes organizations and delegates authority for duties relating to maintaining the safe operation of vessels, performance of transportation contracts and charter agreements, financial assistance, securing required personnel and other matters. Furthermore, for some years MOL has been conducting regular disaster-preparedness drills based on the scenario of an earthquake directly under the Tokyo metropolitan area. By addressing issues arising from these drills, MOL believes that it has a high state of readiness.

### Future Measures

A feature of the Board of Directors is deliberation on corporate strategy and vision. At each meeting, the board focuses on a particular topic such as management strategies and MOL's long-term vision. These discussions provide an opportunity for lively and meaningful



### Statement of Principles for Compliance

(Compliance Rules Article 3)

1. Strive to follow the MOL Corporate Principles and make them a reality.
2. Always recognize the public mission and social responsibilities of the company's business, and maintain the trust of the company's stakeholders.
3. Strictly comply with laws, regulations, and the like, 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.

debates at board meetings that include the outside directors and corporate auditors. Moving forward, we will work so that our established governance systems, which include these deliberations, function effectively. We are also strengthening our risk management and business intelligence systems that support sustainable growth to achieve the goals of our midterm management plan. In fiscal 2010, we bolstered survey activities for use in making management decisions, and launched an internal portal site for sharing information.

## Compliance

### Approach to Compliance

MOL believes compliance means more than just strictly complying with legislation and internal rules (including voluntary Rules of Conduct). It also covers observing the Rules of Conduct in corporate activities and daily operations, including respecting human rights and refusing to permit discrimination and harassment, in accordance with social norms and corporate ethics. In order to instill a compliance mindset and strengthen the systems supporting this, MOL is conducting various activities worldwide. These include an e-learning program as well as legal affairs seminars for the MOL Head Office and Group companies, including those overseas. MOL will continue to strengthen its compliance systems with a view to Global Group management.

### Organizations Responsible for Compliance

#### Compliance Committee

The Company formed the Compliance Committee as a subordinate organization of the Executive Committee, with the Executive Vice Chairman as chairman. The membership comprises Executive Officers responsible for the Internal Audit Office, the Corporate Planning Division, the Human Resources Division, and the General Affairs Division.

#### Compliance Officers

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

#### Compliance Advisory Service Desk

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

## Accountability

MOL aims to build sound relationships with shareholders and other investors. In this regard, MOL fulfills its accountability for information disclosure based on three key principles of being "timely," "accurate," and "fair." At the same time, MOL works hard to execute highly transparent management with the president himself taking the initiative and responsibility for investor relations (IR). MOL uses various IR tools such as its annual report and Investor Guidebook to convey details of its business environment and management strategy from a medium- to long-term perspective in a straightforward manner. Furthermore, we are mindful of creating even more opportunities to

explain the company. We hold various meetings, including the Annual General Meeting of Shareholders, avoiding the dates most Japanese companies hold their annual meetings, and quarterly results presentations, as well as briefing sessions for individual investors. IR tools and information related to financial results are prepared in both Japanese and English and posted on our website as part of our commitment to global fair disclosure. Fiscal 2011 is the second year of the midterm management plan, the key themes of which are growth, safe operation and the environment. In fiscal 2011, we will disclose information in an easily understood manner about specific measures and progress with the plan. Amid tumultuous change in the operating environment, we are determined to continue conducting vigorous IR activities to cultivate trust in the sustainable growth of our business performance.

### External Recognition

- MOL's IR activities were recognized with the IR Prime Business Award Grand Prix in 2005 by the Japan Investor Relations Association. We were once again recognized with the IR Prime Business Award in 2008 after being ineligible for the award for two years as a past winner, under the award regulations.
- MOL's annual report won the fiscal 2004 best award in the Nikkei Award sponsored by Nikkei Inc. This was followed by excellence awards in fiscal 2005 and fiscal 2006. We have also won prizes in this annual competition on five other occasions.
- MOL was selected as one of the recipients of the Tokyo Stock Exchange (TSE)'s FY2009 Disclosure Award. The TSE recognized the fullness of MOL's disclosure.
- In 2011, MOL was included for the first time among the "Global 100 Most Sustainable Corporations in the World," a listing of sustainable companies announced by Canadian publishing company Corporate Knights Inc.
- MOL continues to be selected as a component of socially responsible investment indexes such as the Dow Jones Sustainability Indexes, and the FTSE4Good Index.



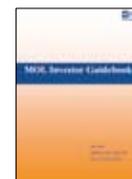
IR Prime Business Award

The responsibility to provide information is not limited to management and financial issues. When four major marine accidents involving MOL-operated vessels occurred in fiscal 2006, MOL disclosed the situation directly after each incident. MOL believes that it has a responsibility to society to disclose such situations to everyone who is directly and indirectly affected. Since these accidents, while working to prevent a recurrence, we have maintained a policy of disclosing information quickly, even if it is negative. We hold regular media response drills at bases in Japan and overseas so we are able to quickly and properly disclose information.

### MOL's Communication Tools



Annual Report



MOL Investor Guidebook



Corporate Profile



Results presentation for investors



Marine incidents can have a serious effect on the environment and local communities as well as the trust placed in transportation services. In this sense, safe operation is a cornerstone theme for management of a shipping company from the standpoints of risk management and service quality. In the feature section, we introduced our initiatives under our current midterm management plan. Here, we explain the framework supporting safe operation at MOL and the ongoing, distinctive measures we are taking to enhance safe operation.

## Safe Operation Management Structure

Since April 2007, MOL has been overhauling its vessel management organization. At present, safe operation is managed under the structure shown in the diagram below.

The Operational Safety Committee is chaired by the president of MOL and reports directly to the Executive Committee. This committee discusses and determines basic policies and measures for ensuring safe operation of vessels through rigorous attention to every detail. The Safety Operations Headquarters, meanwhile, is responsible for implementing specific measures, with progress overseen by the Operational Safety Specialist Committee. The Ship Standard Specification Committee discusses MOL Safety Standards and owned ship maintenance standards from a fail-safe perspective.



## Measures for Reinforcing Safe Operation and Their Implementation

Following four major marine accidents involving MOL-operated vessels in 2006, MOL established the Emergency Committee for Enhancement of Operational Safety in October that year. This committee looked closely at the causes and events that led up to the accidents, analyzing them from multiple angles. Based on this thorough investigation, the committee formulated measures for reinforcing safe operation as an action plan for eradicating these causes.

The measures for reinforcing safe operation are broadly split into two groups: measures concerning seafarers, ship management and the safety culture, and measures concerning ship facilities. The committee has appointed divisions responsible for individual areas,

created an action plan and established deadlines for the achievement of measures. The committee continues to make improvements by regularly confirming progress and revising measures as necessary.

The slogan for the safe operation reinforcement measures is "Never Forget 2006." As outlined below, we are now in Phase 4 of this improvement program, and have already achieved more than half of our 200 or so targets.

- Phase 1: January 2007 to September 2008
- Phase 2: October 2008 to September 2009
- Phase 3: October 2009 to September 2010
- Phase 4: October 2010 to March 2012

Phase 4 sets forth the following slogans, which are also targets of the midterm management plan, "GEAR UP! MOL." We are now working to achieve these targets. (See pages 8 and 9 for details.)

- Aiming to Become the World Leader in Safe Operation
- Making Processes for Realizing Safe Operation Visible
- Breaking the Chain of Errors to Realize the Four Zeros

## Details of Measures to Reinforce Safe Operation

### Safety Operation Supporting Center

In February 2007, the company established the Safety Operation Supporting Center (SOSC) in its head office.

SOSC monitors ship positions and movements, and promptly conveys information on abnormal weather conditions, tsunamis, pirate threats and terrorist incidents to relevant parties on ships and on land, thereby supporting decision-making by ship captains to ensure safety. It is staffed 24 hours a day, 365 days a year by 7 seasoned MOL captains and other personnel who ensure that captains at sea never feel alone.

Since the establishment of SOSC, there has been a clear decline in the number of navigation-related incidents, including those involving adverse weather or emergency entry\* of MOL-operated ships.

	2007	2008	2009	2010
Navigation-related incidents, including those involving adverse weather or emergency entry*	12	9	9	3

\* Refers to a sudden departure from a charted course to avoid a typhoon or other adverse weather conditions. This does not include instances where a vessel plots a course so as to avoid a forecast typhoon or bad weather.



### Drills Simulating Serious Marine Incidents

MOL conducts accident response drills twice a year that simulate a large-scale marine incident.

The drill conducted in May 2011 simulated an MOL-operated bulker collision in the Seto Inland Sea. Around 60 people, including the president and the concerned executive officers, as well as people from related divisions and ship management companies, took part in this drill, which practiced required and improvised responses.



### Safety Campaign

In addition to ship visits as part of normal duties, the president, other executive officers and employees are encouraged to visit vessels twice a year as part of campaigns lasting one to two months in order to prevent marine incidents and workplace injuries. Seafarers and land-based personnel share views on specific measures based on recently occurring incidents, and visitors take home their proposals for measures to reinforce safe operation for further consideration. These proposals are either reflected in the next phase of the safety improvement program or immediately applied to operating vessels to further strengthen safe operation.



President Koichi Muto on a vessel visit during one of the safety campaigns. (Second from left)

### Securing and Training Employees

#### *Spirit of MOL*

MOL launched the training ship *Spirit of MOL* in July 2007 to further strengthen basic on-board training for cadets. Cadets first receive intensive safety education and basic training on the ship over a period of around three months. They learn specialist navigation and marine engineering skills and how to conduct themselves as a crew member. Moreover, young people of various nationalities share the experience of training on the same ship, which provides them with an understanding of other cultures and instills pride and a sense of solidarity as MOL seafarers.



*Spirit of MOL* training ship

### BRM Drills

In order to maintain safe operation and high-quality transport services, it is necessary to continually provide seafarers with technical guidance and safety education based on MOL quality standards. A variety of drills are conducted to this end at training locations, including bridge resource management (BRM) drills, which are unique to MOL and involve recreating past incidents on a bridge simulator and practicing how to respond. Drill programs are revised as needed and used to strengthen safe operation.



### Safety Conference

The company holds Safety Conferences once a year in countries with many seafarers that crew MOL-operated vessels (The Philippines, India, Croatia, etc.). MOL's president, other executive officers and relevant divisional personnel attend these conferences at which participants engage in lively exchanges of opinion about measures to ensure safe operation.



Safety Conference (India)

### Preventing Work-related Accidents

MOL is implementing measures to achieve concrete numerical targets in order to reduce work-related accidents as much as possible (See page 8). Even so, as a company operating more than 900 vessels, completely eliminating accidents is a major challenge. If trivial incidents are included, accidents cannot be entirely eliminated.

Therefore, MOL analyzes the factors and causes behind incidents involving vessels operated by the company as well as other companies, and uses the results as the basis for developing highly effective countermeasures to prevent incidents from recurring or even happening in the first place.



# Environmental Management Policy



The MOL Group is well aware of the environmental burden created by its business activities as it meets world demand for shipping and always seeks to offer more environment-friendly services through various protection measures. These measures include developing and adopting environmental technologies, operating vessels with minimum environmental impact, taking various steps to tackle global warming, implementing approaches to preserve the atmosphere and the marine environment, reducing waste, and recycling resources.

## MOL Group Environmental Policy Statement

### Philosophy

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

### Policies

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

## Group Environmental Audits

### ISO14001 Certification

Company name	Acquired month	Certifying institution
Mitsui O.S.K. Lines, Ltd.	January 2003	Det Norske Veritas AS (DNV)
Kusakabe Maritime Engineering Co., Ltd.	May 2004	CI Japan Limited
MOL Logistics (Japan) Co., Ltd.	April 2006	Nippon Kaiji Kentei Quality Assurance Ltd.
Mitsui O.S.K. Kosan Co., Ltd.	July 2006	The British Standards Institution
Tanker Safety Management Office of MOL*	September 2006	DNV
MOL LNG Transport Co., Ltd.	December 2006	Nippon Kaiji Kyokai

\* MOL's Tanker Safety Management Office. This division has obtained certification separately from MOL for management and charter safety management at related vessel management companies.

### MOL Group Companies with Green Management Certification (Foundation for Promoting Personal Mobility and Ecological Transportation)

Company name	Acquired month	Company name	Acquired month
International Container Transport Co., Ltd.	October 2005	Utoc Logistics Corporation	February 2007
The Diamond Ferry Co., Ltd.	November 2005	Kobe Towing Co., Ltd.	March 2007
Meimon Taiyo Ferry Co., Ltd.	December 2005	Utoc Corporation	June 2007
Diamond Line K.K.	February 2006	Green Shipping, Ltd.	July 2007
Green Kaiji Kaisha, Ltd.	March 2006	Shosen Koun Co., Ltd.	October 2007
Kansai Kisen Kaisha	May 2006	Ube Port Service Co., Ltd.	November 2007
Nihon Tug-Boat Co., Ltd.	August 2006	Kitanihon Tug-Boat Co., Ltd.	June 2008
Japan Express Packing & Transport Co., Ltd.	November 2006	MOL Ferry Co., Ltd.	March 2010

### EcoAction 21 (Institute for Global Environmental Strategies)

Company name	Acquired month
MOL Techno-Trade, Ltd.	July 2007

## System to Promote Environmental Management

At MOL, under the president, who has the ultimate decision-making authority, the CSR and Environment Committee, a subcommittee of the Executive Committee, discusses basic policies on environmental issues and other matters, and works to promote business activities in line with the MOL Group Environmental Policy Statement. The committee's deliberations helped MOL to formulate its environmental strategy under the midterm management plan, "GEAR UP! MOL." This strategy forms part of the MOL Group's overall strategies. The CSR and Environment Committee operates two unique environmental management systems—MOL EMS21 and the MOL Group Environmental Target System—as it promotes the MOL Group's environmental activities.

## Midterm Management Plan, "GEAR UP! MOL" Environmental Strategy

### Evolve into a corporate group that meets today's demands by offering transport solutions with a lower environmental burden

MOL is reinforcing and emphasizing the advantages that marine transport offers, as an environmentally efficient mode of transportation, in various ways, including development of the *Senpaku ISHIN* project. The MOL Group thus contributes to sustained global economic growth by offering transportation services that can respond to customers' needs while protecting the global environment.

- Place safe operation as the top priority
- Improve efficiency and reduce the environmental impact of ships
  - Progress of the *Senpaku ISHIN* Project
  - A commitment to ECO SAILING
  - Reduced CO<sub>2</sub> emissions per ton-mile
- Offer low environmental impact solutions as a whole group
- Invest ¥28.0 billion over three years to develop and implement environmental technologies
- Advocate policies and measures aimed at contributing to actual reductions in environmental impact
- Contribute to conservation of biodiversity and protection of the natural environment

## Environmental Management System

### MOL EMS21

We introduced our environmental management system—MOL EMS21—in April 2001. In January 2003, we expanded its scope to all of our operated vessels (except charter vessels on contracts of one year or less), and acquired internationally recognized ISO14001 certification. In the MOL EMS21 system, the director responsible for environmental management (chairman of the CSR and Environment Committee) confirms and assesses how effectively the system functions, based on internal audits held at least once a year. The internal audits are conducted by the CSR and Environment Office, Corporate Planning Division, targeting all divisions in the Tokyo Head Office, and the Marine Safety Division implements environmental inspections on our vessels. Det Norske Veritas AS (DNV), an ISO14001 external certification body, holds an annual audit and a renewal assessment every three years.

#### ISO14001 Certification

##### Scope

Ship operation activities at sites and Head Office associated with multi-modal logistics/ocean services (except charter vessels on contracts of one year or less)

##### Certifying institution

Det Norske Veritas AS (DNV)

##### Accreditation

Read Voor Accrediate (RVA) in the Netherlands



ISO14001  
Certification

### The MOL Group Environmental Target System

The MOL Group implements the MOL Group Environmental Target System covering main Group companies in Japan and overseas. Regarding the environmental burden due to each company's business activities, every fiscal year, based on general guidelines, each company sets its own environmental targets in line with the midterm environmental targets, and sets out an action plan to achieve those targets. Data from each company regarding its environmental burden (consumption of fuel, electricity, paper, and generated waste), are collected and the Group-wide environmental burden is tabulated. Currently, the program covers 76 companies, including 58 Group companies in Japan and 18 overseas affiliates and subsidiaries (as of March 31, 2011).

## FY2010 Environmental Accounting

### Environmental Protection Costs

(Unit: ¥ million)

Category	Items	Investment	Cost
(1) Costs in business areas (Global environmental protection)	Measures to reduce exhaust gas from vessels	5,287	1,098
	Measures on vessels to preserve the marine environment	250	0
	Office related	31	0
(2) Costs for management activity	Environmental management activities	0	92
(3) Costs for R&D	R&D	0	681
(4) Social activity costs	Social contribution activities	0	0
	Total	5,568	1,871

### Environmental Protection Effects

Category	Details of effects	Index (g/ton • mile)	FY2010	FY2009	Effects
(1) Effects related to resources invested in business activities	Total energy volume input	Fuel	2.11	2.33	-0.23
		CO <sub>2</sub>	6.570	7.271	-0.701
(2) Environmental burden of business activities	GHG, etc. emissions	NO <sub>x</sub>	0.177	0.196	-0.019
		SO <sub>x</sub>	0.109	0.122	-0.013

### Aggregation Method

#### Reference guidelines

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

Cost does not include depreciation and amortization expenses.

#### Tabulation period

FY2010 (April 1, 2010 to March 31, 2011)

#### Scope of tabulation

Head Office and operated vessels of Mitsui O.S.K. Lines, Ltd. (non-consolidated) and ocean-going vessels and ferries operated by MOL Group companies in Japan.

#### Changes in aggregation method

- From FY2010, ocean-going vessels and ferries operated by MOL Group companies in Japan are included in the scope of tabulation. (However, the SO<sub>x</sub> benefit in environmental protection benefits is for MOL on a non-consolidated basis.)
- The method for calculating indicators of environmental protection benefits has changed. Accordingly, FY2009 figures to the left are different from figures contained in Environmental and Social Report 2010. Previous figures were 1.55 for fuel, 4.715 for CO<sub>2</sub>, 0.130 for NO<sub>x</sub>, and 0.083 for SO<sub>x</sub>.



# Environmental Targets and Results



In accordance with the environmental strategy in the midterm management plan, "GEAR UP! MOL," the MOL Group has set midterm environmental targets for the period from fiscal 2010 through fiscal 2012, as well as targets for each fiscal year and is working to achieve them. New targets were established for fiscal 2011 based on the relative achievement of fiscal 2010 targets. MOL is taking initiatives to evolve into a corporate group that can meet today's demands by offering transport solutions with a lower environmental burden, as targeted under "GEAR UP! MOL."

	FY2010-12 Midterm Environmental Targets	FY2010 Environmental Targets
1 Ensure Safe Operation	<b>Eliminate Pollution of the Marine Environment Caused by Shipping Accidents</b>	
	<b>Eliminate shipping accidents that lead to ocean pollution from oil outflows</b>	
		Prevent oil spills caused by oil outflows
	<b>Actively adopt vessel specifications that minimize environmental damage</b>	
		Use double-hull fuel tanks on new vessels
2 Improve Efficiency and Reduce the Environmental Impact of Ships and Actively Invest to Develop and Implement Environmental Technologies	<b>Promote Senpaku ISHIN Project</b>	
	<b>Constantly refine next-generation vessel concepts</b>	
	Design ISHIN ships	Commence design of ISHIN (next-generation car carrier)
	Run experiments on existing vessels for major component ISHIN ship technologies	Promote experimental research on solar power generation and storage (hybrid car carrier) technology
		Commence research on new type of low-friction paint
	Propose new concept vessel to follow ISHIN ships	Promote research on improving Propeller Boss Cap Fins (PBCFs) Actively participate in "Wind Challenger Project" for wind-propelled ships
	<b>Prepare and implement a roadmap for introducing the component ISHIN ship technologies</b>	
		Begin formulating roadmap for introducing component ISHIN ship technologies
	<b>Reinforce functions/activities of the MOL Technology Research Center</b>	
	Develop technologies for reducing emissions of CO <sub>2</sub> , NO <sub>x</sub> , SO <sub>x</sub> and PM (particulate matter)	Apply heat-insulating paint and thermal glass barrier technologies to vessels Install test engines and research technology on reducing NO <sub>x</sub> , SO <sub>x</sub> and PM in exhaust gas
	Develop technology for raising the combustibility of ship fuel	Research and promote technology for improved combustibility of diesel engines with devices that visualize spray and combustion Research technology on improving ignition of low-flammable fuel
	<b>Fully Practice ECO SAILING and Pursue Efficient Operations</b>	
	<b>Promote optimal utilization of reduced navigating speeds</b>	Establish optimal operating methods at reduced navigating speeds and prevent accidents at reduced speeds
	<b>Promote utilization of WNI Ocean Routing (an information service on weather, ocean conditions, optimal routes, etc., provided by Weathernews Inc.)</b>	Utilize WNI Ocean Routing
	<b>Utilize FMS Safety-Bridge System (on-board system that plans optimal routes based on the latest data on weather and ocean conditions)</b>	Promote utilization of FMS Safety-Bridge System—Increase access by 10% over FY2009
	<b>Substantially expand use of fuel additives</b>	Improve convenience of fuel additives and then ramp up use on vessels
	<b>Promote installation of PBCFs and other devices to improve propeller efficiency on MOL vessels</b>	Install PBCFs and other devices to improve propeller efficiency on all newly built MOL vessels
	<b>Promote installation of energy-saving LO lubricators on MOL vessels</b>	Install energy-saving LO lubricators on all newly built MOL vessels
	<b>Promote installation of electronically-controlled engines (approx. 20 vessels)</b>	Promote installation of electronically-controlled engines (approx. 10 vessels)
	<b>Install onshore power supply systems (approx. 14 vessels)</b>	Install onshore power supply systems (approx. 14 vessels)
<b>Reduce CO<sub>2</sub> Emissions per Ton-mile (oceangoing vessels operated by MOL and domestic consolidated subsidiaries)</b>		
<b>Reduce by 10% by FY2015 compared to FY2009</b>	Reduce by 1% compared to FY2009	
<b>Initiatives for Preventing Atmospheric Pollution</b>		
<b>Reduce NO<sub>x</sub> and SO<sub>x</sub> emissions per ton-mile (oceangoing vessels operated by MOL and domestic consolidated subsidiaries)</b>		
Reduce by 10% by FY2015 compared to FY2009	Reduce by 1% compared to FY2009	
<b>Make MOL's unique technologies for reducing PM (particulate matter) feasible for practical application</b>	Conduct experiments to verify MOL's unique technologies for reducing PM	

Legend: ● Achieved ○ Generally achieved △ Partially achieved ● Did not achieve (target period/content changes)

**Achievement Against FY2010 Environmental Targets**

**FY2011 Environmental Targets**

●	There was an incident involving an iron ore carrier in the waters to the east of China's Shandong Peninsula (May 2010) As part of marine incident prevention, MOL analyzed the accident to find the cause and took measures to prevent a recurrence. Furthermore, the company conducted accident response drills	Prevent oil spills caused by oil outflows
○	All vessels delivered from August 2010 are double-hulled (or have equivalent measures)	Prevent oil spills by changing the stern tube sealing arrangement for new vessels—the method for preventing seawater ingress through the gap between the propeller shaft and the vessel hull—from an oil bath type to an air seal type
○	Initiated basic plan in cooperation with Mitsubishi Heavy Industries, Ltd.; decided on basic specifications	<ul style="list-style-type: none"> <li>Consider applying design of <i>ISHIN-I</i> (next-generation car carrier) to a larger vessel with wide beam for to-be-expanded Panama Canal</li> <li>Begin designing an LNG-fueled vessel as core component technologies of <i>ISHIN-II</i> (next-generation ferry)</li> <li>Begin refining main engine waste heat energy recovery system and designing it for a large vessel, as core component technologies of <i>ISHIN-III</i> (next-generation iron ore carrier)</li> </ul>
○	Conducted research on solar power generation and storage (hybrid car carrier)	Complete hybrid system development and determine specifications. Begin building hybrid car carrier
○	Adopted low-friction paint from several manufacturers on a total of 33 vessels, and evaluated performance	Push ahead with applied research of main engine waste heat energy recovery system, as core component technologies of <i>ISHIN-III</i> (next-generation iron ore carrier), on actual vessels Continue evaluating the performance of low-friction paint from each manufacturer. Apply newly developed next-generation low-friction paint to two car carriers and evaluate its performance
○	Fitted to two new car carriers and verified performance	Improve design method to create more optimal PBCFs for each propeller type
○	Developed large-scale solid sail, came up with conceptual design for a wind-propelled vessel with a sail, and developed navigation method for wind-propelled vessels	Continue developing large-scale solid sail in the "Wind Challenger Project" for wind-propelled ships, come up with conceptual design for a wind-propelled vessel with a sail, and develop navigation method for wind-propelled vessels Launch meetings that connect business needs with new developments, and identify issues
○	Established roadmap for component technologies, updated monthly and reported to CSR and Environment Committee	Utilize roadmap for instituting component <i>ISHIN</i> ship technologies to create actual vessels fitted with <i>ISHIN</i> component technologies
○	Used heat-shielding paint on 24 vessels after confirming performance. Conducted field testing of thermal glass barrier technologies	Continue to apply heat-shielding paint to vessels, and scrutinize performance of thermal glass barrier technologies
△	Finished installing test engines. Targeting completion of all facilities in FY2011	Develop NOx- and PM-reducing technologies using fuel additives and prototype fuel nozzles in the test engine
○	Conducted comparative evaluation of various types of fuel-injection nozzles. Created effective prototype nozzle for raising combustion efficiency	Verify improvement in combustion efficiency from using prototype fuel nozzle in the test engine
○	Began using proprietary fuel additive "TAICRUSH HD" on MOL-operated vessels	Verify technology for raising the combustibility of ship fuel applying micro-nano bubble technology in the test engine
○	Increased awareness of main engine operating methods when containerhips are navigating at reduced speeds, collected and examined slow steaming data, offered technical support for vessels	Help vessel types other than containerhips to establish optimal operating methods at reduced navigating speeds and prevent accidents at reduced speeds
○	Continued using in all vessel operating divisions	Continue utilizing WNI Ocean Routing
○	Access increased by 27%. Installed access system on more vessels and provided access log to all ship management companies, leading to increased access	Promote utilization of FMS Safety-Bridge System—Increase access by 10% over FY2010
○	Provided technical advice for enhancing the usability of agitation needed to use the fuel additive "TAICRUSH HD"	Promote use of fuel additive
○	Installed propeller efficiency-improving devices on all 35 delivered vessels (PBCFs on 25 vessels, and other devices to improve propeller efficiency on 10 vessels)	Install PBCFs and other devices to improve propeller efficiency on all newly built MOL vessels
○	Installed energy-saving LO lubricators on all 35 delivered vessels	Install energy-saving LO lubricators on all newly built MOL vessels
○	Installed electronically-controlled engines on 9 vessels (8 containerhips and 1 Capesize bulker; 1 fewer than planned due to rescheduled vessel delivery)	Promote installation of electronically-controlled engines (approx. 3 vessels)
○	Installed onshore power supply system on 10 containerhips. Less than planned due to a decrease in vessels used for services requiring onshore electricity	Install onshore power supply system (1 vessel)
○	Reduced by 9.9% at MOL, reduced by 1.4% at domestic consolidated subsidiaries compared to FY2009	Reduce by 1% compared to FY2010
○	NOx: reduced by 9.9% and 1.4% at MOL and domestic consolidated subsidiaries, respectively	Reduce by 1% compared to FY2010. Calculate SOx at domestic consolidated subsidiaries
○	SOx: reduced by 10.5% at MOL. A calculation method hasn't been determined for domestic consolidated subsidiaries	
○	Decided to install PM-reduction technology (diesel particulate filter (DPF)) on MOL Group vessels delivered in FY2011	Install DPF system on actual vessels, conduct durability experiments (continuously through FY2012)

(Continued on next page)

FY2010–12 Midterm Environmental Targets

FY2010 Environmental Targets

3 Offer Low Environmental Impact Solutions as a Whole Group	<b>Comply with Environmental Regulations</b>	
	<b>Comply with current regulations and prepare to comply in the future when regulations are tightened and their scope is expanded geographically</b>	
		Prepare to comply with Tier-II NOx regulations (which includes accommodating their geographic expansion)
		Prepare to comply with low sulfur fuel oil regulations and prepare to accommodate their geographic expansion
		Prepare to comply with ship recycling regulations
	<b>Further Accommodate Modal Shift</b>	
	<b>Reduce customer CO<sub>2</sub> emissions using Japan's largest ferry network</b>	Reduce customer CO <sub>2</sub> emissions by approx. 600,000 tons annually using Japan's largest ferry network
	<b>Promote environmental advantages of domestic carriers and ferries</b>	Continue PR via Group company and industry group websites and other channels
	<b>Conduct research and develop technologies toward practical viability of <i>ISHIN-II</i> (ferry that uses LNG as fuel)</b>	Start research on domestic regulations for <i>ISHIN-II</i>
	<b>Actively Develop Existing Low-Environmental-Impact Solutions</b>	
	<b>Provide tugboat services with reduced environmental impact due to reduced navigation speeds</b>	Continue operating tugboats at reduced navigation speeds
	<b>Promote PBCFs sales through MOL Techno-Trade, Ltd.</b>	Achieve cumulative PBCF installations of 2,000 units
	<b>Actively Consider New Low-Environmental-Impact Solutions</b>	
	<b>Participate in experiments to demonstrate the "eco tug" concept (tugboats with reduced environmental impact)</b>	Begin considerations on "eco tug" demonstration experiments
	<b>Contribute to recycling through environment-related businesses of Kusakabe Maritime Engineering Co., Ltd.</b>	Continue environment-related businesses of Kusakabe Maritime Engineering Co., Ltd.
<b>Introduce environmental materials for ships</b>	Introduce low-environmental-impact amenities on cruise ships	
<b>Promote reduced environmental impact at existing buildings managed by Daibiru Corporation</b>	Install low-environmental-impact air conditioning systems and lighting in refurbished buildings Promote adoption of rainwater reuse, rooftop gardens, natural ventilation, high thermal barrier/heat-shielding glass	
<b>Popularize use of improved PBCFs through MOL Techno-Trade, Ltd.</b>	Take part in R&D on improved PBCF	
<b>Maintain and Enhance MOL Group Environmental Award Program</b>		
	Increase number of entries for MOL Group Environmental Award	
4 Advocate Policies and Measures Aimed at Contributing to Actual Reductions in Environmental Impact	<b>Take Part in Policymaking and Actively Make Recommendations so that Environmental Policy Promotes Utilization and Reinforcement of Impact Reduction and Sustainable Economic Growth</b>	
	<b>Measures for greenhouse gases emitted by oceangoing vessels: Work to shape policy in line with IMO's nine basic principles</b>	
		Contribute to debate at the 61st session of the IMO's Marine Environment Protection Committee
	<b>Measures for greenhouse gases emitted by domestic carriers and ferries: Work to shape policy to promote modal shift</b>	
	Lobby and build consensus on programs for promoting modal shift, eco-ships, etc.	
5 Contribute to Conservation of Biodiversity and Protection of the Natural Environment	<b>Raise Awareness of Employees Regarding Biodiversity Protection and Nature Conservation and Promote Activities, Technological</b>	
	<b>Continue existing activities and conduct new activities that contribute to conservation of biodiversity and protection of the natural environment</b>	
	Eliminate pollution of the marine environment caused by shipping accidents	Prevent ocean pollution caused by shipping accidents
	Develop and install ballast water treatment systems	Develop ballast water treatment system
	Expand social contribution activities that help in biodiversity protection and nature conservation	Increase participation in existing activities
	<b>Raise employee awareness of biodiversity protection and nature conservation</b>	
		Establish e-learning course for all employees Provide information via the intranet
	<b>Continue utilizing renewable energy at domestic sites and consider new installations</b>	
		Continue utilizing solar power generation at the Tokyo International Container Terminal Begin considering installation of new solar power systems at domestic sites
	<b>Reduce environmental impact associated with domestic business activities (MOL and domestic Group companies)</b>	
	Reduce unit energy consumption at domestic business sites by 3% compared to FY2009	Reduce unit energy consumption at domestic business sites by 1% compared to FY2009
	Reduce unit energy consumption by domestic transport modes by 3% compared to FY2009	Reduce unit energy consumption by domestic transport modes by 1% compared to FY2009
	Reduce office paper usage (per employee) by 3% compared to FY2009	Reduce office paper usage (per employee) by 1% compared to FY2009
	Recycle as much as possible and reduce non-recyclable waste	Recycle as much as possible and set targets for non-recyclable waste reduction
	<b>Comply with domestic environmental regulations</b>	
	Comply with the Energy Conservation Law Comply with the the Tokyo Metropolitan Environmental Security Ordinance	

Legend: ○Achieved ○Generally achieved △Partially achieved ●Did not achieve (target period/content changes)

**Achievement Against FY2010 Environmental Targets**

**FY2011 Environmental Targets**

○	Held training sessions for understanding electronically controlled engines, and raised awareness of measures
○	In addition to internal announcements, held workshops and meetings
○	Launched an in-house study group, held workshops and raised awareness
-	Formulated and initiated use of SEEMP: Ship Energy Efficiency Management Plan on tankers ahead of treaty enforcement
○	Reduced by 560,000 tons. (Actively promoted modal shift, but fell slightly short of target due to business environment, etc.)
○	Continued PR on websites
○	Carried out surveys and research in GHG-reduction Infrastructure Study Committee and LNG Carrier Requirement Study Committee of Japan Ship Technology Research Association. Created prototype design for <i>ISHIN-II</i> with Mitsubishi Heavy Industries
○	Continued operating tugboats at reduced navigation speeds
●	Cumulative PBCF sales reached approximately 1,900 units (Sold approx. 200 units in FY2010)
○	Began considering "eco tug" demonstration experiments
○	Continued operating empty can recycling plant
○	Introduced low-environmental-impact amenities on cruise ships
○	Installed motion sensors for lighting, replaced emergency lighting with LED lights, adjusted secondary cold water pump controls for air conditioning systems, etc.
○	Planned to introduce in the under-construction Daibiru-Honkan building
○	Continued developing with Akishima Laboratory Inc. (Mitsui Engineering & Shipbuilding Co., Ltd.) toward early commercialization
○	Received 9 entries in FY2010 (compared with 6 in FY2009)
<b>the High Environmental Efficiency of Shipping and Contributes to Environmental</b>	
○	Contributed to the creation of a treaty amendment proposal for encouraging equitable and actual GHG reduction in the ocean transport sector and promoted greater understanding through industry groups
○	Lobbied through industry groups on the expressway toll issue, Traffic Safety Policy Basic Act, environmental tax, retention of vessel special depreciation rule requiring environmental facilities, etc.
<b>Development and Social Contributions to this End</b>	
●	There was an incident involving an iron ore carrier in the waters to the east of China's Shandong Peninsula (May 2010)
○	Obtained final approval from IMO. Awaiting official approval from Ministry of Land, Infrastructure, Transport and Tourism
○	Increased beach cleanup participants. Introduced social contribution proposal system for soliciting ideas on new activities from within the MOL Group
○	Launched environmental education e-learning program in February 2011
○	Continued using the intranet-based in-house newsletter "Monthly Environment" to disseminate information
○	Continued utilizing. The system generated approx. 232,000 kWh of power in FY2010 (which covered about 50% of the power needs for the control building)
○	Began consideration. Began operating solar power generation at MOL Technology Research Center in April 2010. Conducted survey with a view to expanding use further
●	Decreased 0.6% in the group as a whole (Increased 0.5% at MOL)
●	Increased 0.8%
●	Increased 5.9% in the group as a whole (Decreased 4.6% at MOL)
○	Established targets for and set about separating, recycling and reducing waste at each company
○	Submitted statutory reports. Conducted survey of energy conservation at subject business sites and identified issues for consideration
○	Submitted statutory reports. Continued utilizing solar power generation and hybrid transfer cranes at the Tokyo International Container Terminal

Successfully implement responses in accordance with Tier-II NOx regulations
Prepare to comply with stricter regulations in North America and other regions, and prepare to accommodate their geographic expansion
Survey situation in each country for determining timing of treaty enforcement
Introduce SEEMP on dry bulkers and LNG carriers (Continue using on tankers)
Reduce customer CO <sub>2</sub> emissions by approx. 600,000 tons annually using Japan's largest ferry services network
Continue PR via Group company and industry group websites and other channels
Conduct research on domestic regulations for <i>ISHIN-II</i> , offer suggestions for establishment of international regulations
Continue operating tugboats at reduced navigation speeds
Achieve cumulative PBCF installations of 2,000 units
Conduct energy-saving operations in controlled-temperature warehouses at the Ohi Logistics Center
Determine method of introducing "eco tugs" and other aspects; secure partners for promoting these tugs
Consider full-scale energy-saving measures, including the use of natural energy at the Ohi Logistics Center
Continue environment-related businesses of Kusakabe Maritime Engineering Co., Ltd.
Continue introducing low-environmental-impact amenities on cruise ships
Install low-environmental-impact air conditioning systems and lighting in refurbished buildings
Promote adoption of rainwater reuse, rooftop gardens, natural ventilation, high thermal barrier/heat-shielding glass
Take part in R&D on improved PBCFs
Increase number of entries for MOL Group Environmental Award, and improve the entries content
Lobbied through industry groups on discussions in the IMO toward introducing regulations in the international ocean shipping sector that will contribute to the equitable and actual reduction of GHGs, without hampering international trade or growth
Lobbied through industry groups for promoting modal shift (and preventing backward steps)
Prevent ocean pollution caused by shipping accidents
Make preparations for installing ballast water treatment system
Expand existing activities and consider new activities based on system for proposals on the MOL Group's social contribution activities
Use the company newsletter to disseminate articles that raise awareness about biodiversity
Continue utilizing solar power generation at the Tokyo International Container Terminal and the MOL Technology Research Center
Advance studies of business sites to install solar power and its facility
Reduce unit energy consumption at domestic business sites by 2% compared to FY2009
Reduce unit energy consumption by domestic transport modes by 2% compared to FY2009
Reduce office paper usage (per employee) by 2% compared to FY2009
Recycle as much as possible and reduce non-recyclable waste
Develop and implement specific reduction measures
Develop and implement specific reduction measures

# Environmental Burden of the MOL Group



The MOL Group conducts a range of business activities on land and at sea, including international shipping. In the course of those activities, we place a burden on the environment mainly associated with fuel consumption. The following is a summary of MOL's and the MOL Group's consumed resources and environmental impacts during fiscal 2010. The MOL Group is working to reduce these environmental impacts.

## Environmental Burden of the MOL Group (FY2010)

### Activities at Sea (Vessels)

	INPUT		OUTPUT	
<b>MOL (nonconsolidated)</b>	Fuel oil (C oil* <sup>1</sup> )	5,559 thousand tons	CO <sub>2</sub>	17,545 thousand tons
	Diesel oil (A oil* <sup>2</sup> )	72 thousand tons	NOx	473 thousand tons
			SOx	302 thousand tons
<b>Group companies (domestic shipping)*<sup>3</sup></b>	Fuel oil (C oil* <sup>1</sup> )	242 thousand tons	CO <sub>2</sub>	798 thousand tons
	Diesel oil (A oil* <sup>2</sup> )	16 thousand tons	NOx	22 thousand tons
			SOx	—* <sup>5</sup>
<b>Group companies (international shipping)*<sup>4</sup></b>	Fuel oil (C oil* <sup>1</sup> )	522 thousand tons	CO <sub>2</sub>	1,710 thousand tons
	Diesel oil (A oil* <sup>2</sup> )	26 thousand tons	NOx	46 thousand tons
			SOx	—* <sup>5</sup>

### Activities on Land

	INPUT		OUTPUT	
<b>MOL (nonconsolidated)</b>	Fuel	97 kl	CO <sub>2</sub>	7,366 tons
	Electricity	19,945 thousand kWh	NOx	6 tons
	Municipal gas	154 thousand m <sup>3</sup>	Waste	120 tons
	LPG	3 tons		
	Heat	1,884 GJ		
	Water	6,859 m <sup>3</sup>		
	Office paper	7,306 thousand sheets* <sup>7</sup>		
<b>Group companies*<sup>7</sup></b>	Fuel	6,274 kl	CO <sub>2</sub>	66,128 tons
	Electricity	78,337 thousand kWh	NOx	23 tons
	Municipal gas	1,603 thousand m <sup>3</sup>	Waste	2,347 tons
	LPG	46 tons		
	Heat	42,194 GJ		
	Water	643,131 m <sup>3</sup>		
	Office paper	44,194 thousand sheets* <sup>7</sup>		

\*1 C oil (Marine fuel oil): Mainly for vessel main engines

\*2 A oil (Marine diesel oil): Mainly for onboard generators

\*3 MOL Ferry Co., Ltd., Ferry Sunflower Limited, Meimon Taiyo Ferry Co., Ltd., MOL Naikou, 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., and MOL Techno-Trade, Ltd. (11 companies in total)

\*4 Mitsui O.S.K. Kinkai, Ltd., Tokyo Marine Co., Ltd., Nissan Motor Car Carrier Co., Ltd. and Mitsui O.S.K. Passenger Line, Ltd. (4 companies in total).

\*5 Data on SOx emissions of Group companies is not available.

\*6 All consolidated subsidiaries in Japan, and Meimon Taiyo Ferry Co., Ltd. and Nippon Charter Cruise, Ltd. which are both affiliated companies accounted for by the equity method. However, results exclude some companies whose environmental burden is negligible.

\*7 Converted to A4 size.

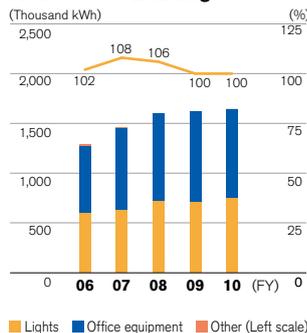
## Measures at Offices



MOL Head Office Building

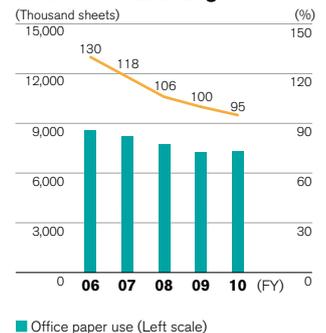
The MOL Group strives to reduce the environmental impact generated by office operations (office paper, electricity, waste) as well as in land and sea transportation activities. The MOL Head Office Building has won recognition for its vigorous paper waste reduction and paper recycling, winning an award in fiscal 2010 from Minato Ward, Tokyo, for its outstanding waste-reduction efforts. In terms of electricity use, motion sensors for lighting and other systems have produced results. In the wake of the Great East Japan Earthquake, MOL has also taken rigorous steps to save power, including turning lights out at lunchtime and removing lighting.

### Electricity Use in Head Office Building



\* Benchmark year for reduction target  
Excluding the 15th floor which is mainly used as a staff cafeteria

### Office Paper Use in Head Office Building



\* Benchmark year for reduction target  
MOL (nonconsolidated) only



# Approaches to Tackling Global Warming and Preventing Air Pollution



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

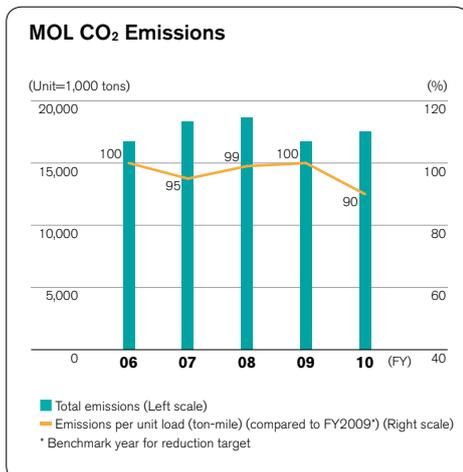
## Approaches to Tackling Global Warming

### Approaches of the Ocean Shipping Industry

The international ocean shipping business operates all over the world. Furthermore, because this is a single international market, it makes sense that, in principle, all environment-related measures must apply the same standard to all sea areas and vessels. For this reason, under the Kyoto Protocol, the approach to reduction of GHG emissions from vessels engaged in international shipping is delegated to the International Maritime Organization (IMO), a specialist agency of the United Nations. The Conference of Parties, the 17th session, UNFCCC (COP17) will discuss a framework for combating global warming to succeed the Kyoto Protocol in December 2011. MOL will continue to contribute to initiatives of industry groups and governments to create a framework, through the IMO, that leads to substantial reductions in GHGs from international shipping. Based on the nine fundamental principles of the IMO, the framework should be "binding and equally applicable to all flag states in order to avoid evasion" and "based on sustainable environmental development without penalizing global trade and growth," among other conditions.

### MOL's Approaches

One of the environmental strategies in our midterm management plan, "GEAR UP! MOL," is to reduce CO<sub>2</sub> emissions per unit load (ton-mile) by 10% in fiscal 2015 compared with fiscal 2009. This target applies to ocean-going vessels operated by MOL and domestic consolidated subsidiaries. In order to achieve the targeted reduction, we are developing and adopting new environmental technologies, practicing ECO SAILING, and introducing larger vessels. In fiscal 2010, the company and consolidated subsidiaries achieved reductions of 9.9% and 1.4%, respectively, in part due to improved operating efficiency resulting from better market conditions.



### Environmental Technologies

The MOL Group is engaged in developing various environmental technologies for ships. In Feature 3 (on pages 10 and 11 of this report), we look at core component technologies of the *Senpaku ISHIN* project. In this section, we showcase other main initiatives.

**Use of renewable energy:** Besides solar power generation showcased in Feature 3, the company is taking part in the "Wind Challenger Project" led by The University of Tokyo. This project is researching wind-propelled ships, which involves using sails as the main driving power, with a propulsion system in an auxiliary role. In addition to MOL, two other ocean shipping companies, Nippon Kaiji Kyokai, shipbuilders and other parties are participating in the project. Launched in September 2009, the project is now developing large-scale solid sail structures using composite materials, as well as examining particulars for vessel designs to develop, and developing fluid analysis techniques and weather routing methods.



**PBCFs boost vessels' propulsion power:** Propeller Boss Cap Fins (PBCFs), jointly developed by MOL and other parties, improve propeller efficiency. PBCFs produce a 4% to 5% improvement in fuel efficiency at the same speed, along with commensurate reductions in CO<sub>2</sub> emissions. These fins have been widely installed on MOL-operated vessels, as well as other vessels around the world. As of March 31, 2011, PBCFs had been introduced to more than 1,900 vessels worldwide, including vessels scheduled to be built. MOL is currently developing new PBCFs with Akishima Laboratories (Mitsui Zosen) Inc., which target a further improvement in fuel efficiency of another 1 to 2 percentage points. An additional patent was filed for them in April 2009. We aim to make these new fins commercially available as early as possible.



PBCF

**R&D on high-performance antifouling ship bottom paints that improve vessels' fuel efficiency:** Ships consume most of their fuel in overcoming the resistance when navigating. Reducing this resistance contributes directly to lower fuel consumption and reduced CO<sub>2</sub> emissions. The drag of seawater over a vessel's wetted surface accounts for 50% to 80% of all resistance, including wind and wave resistance.

MOL has teamed up with Nippon Paint Co., Ltd. and Nippon Paint Marine Coatings Co., Ltd. to develop a super-slick antifouling ship bottom paint with high performance friction-reducing properties. The paint will dramatically reduce fuel consumption by reducing seawater drag. This research and development is part of our commitment to realizing *Senpaku ISHIN*, and is expected to lower CO<sub>2</sub> emissions by 8% to 12% compared to conventional antifouling paints.

**Wind resistance-reducing design:** The unique shape of car carriers means that there is a large surface area exposed to wind pressure, and the impact of this resistance is considerable. In 2003, MOL took delivery of *Courageous Ace*, which was the first vessel to adopt a beveled, rounded superstructure at the bow. Since then, MOL has deepened research on vessel shapes to lower wind resistance. Under the *Senpaku ISHIN* project, the company is aiming to make further improvements to the shape of ships' bows.

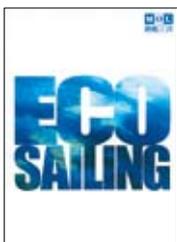
In December 2010, the MOL Group's reduced wind resistance car carrier fleet was joined by *City of St. Petersburg*, which is operated by Nissan Motor Car Carrier Co., Ltd. Built by Kyokuyo Shipyard Corporation, this vessel can carry up to 2,000 cars. A sleek, semi-spherical bow design reduces wind resistance by up to 50% compared to Nissan Motor Car Carrier's existing vessels. Assigned to transport finished vehicles within the European region, this car carrier is expected to reap the full benefits of its new design in the North Sea, where winds are notoriously strong. This unique bow design has received high marks, with the vessel selected as the "Ship of the Year 2010" by the Japan Society of Naval Architects and Ocean Engineers in May 2011.



City of St. Petersburg car carrier

**A Commitment to ECO SAILING**

To save fuel and reduce environmental impact, we monitor energy flow in our vessels and do our utmost to eliminate energy losses in our operations. We call this approach ECO SAILING. We rigorously apply the principles of ECO SAILING whenever we operate vessels. Specifically, we 1) properly reduce navigation speeds, 2) take advantage of weather and sea condition forecasts and the optimum trim,

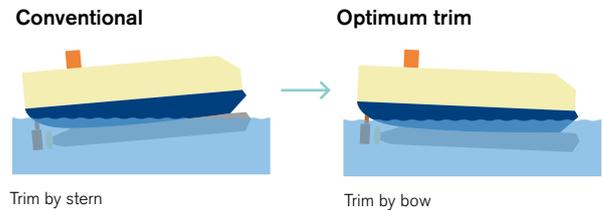


ECO SAILING Pamphlet

3) select optimum routes, 4) reduce vessels' wetted surfaces, 5) optimize operation and maintenance of main engines, auxiliary equipment and other machinery, 6) develop energy-efficient ship designs, and 7) equip vessels with Propeller Boss Cap Fins (PBCFs).

**Slow steaming:** In fiscal 2010, MOL-operated containerships cut CO<sub>2</sub> emissions by approximately 700,000 tons by reducing speeds by an average of roughly 6% year on year. MOL is also implementing slow steaming in other vessel classes, according to navigation conditions.

**Optimum trim system:** MOL has developed an optimum trim system for vessels along with Akishima Laboratories (Mitsui Zosen) Inc. The optimum trim system quantitatively assesses MOL captains' extensive practical knowledge of vessel running attitudes through tank testing and actual ship testing. This data is translated into graphs that make it easy for seafarers to use. A pilot test of the system on a car carrier using an optimally trimmed bow showed an increase of up to 4% in fuel efficiency compared to the conventional approach of trimming the stern of a vessel. MOL expects that it won't be long before all vessels will navigate with optimum trim.



**Introduction of Ship Energy Efficiency Management Plan (SEEMP):**

This system enables vessels to self-monitor CO<sub>2</sub> emissions per unit load while suggesting the most efficient vessel operation method for achieving targeted CO<sub>2</sub> emissions (slow steaming, optimum route selection taking into consideration ocean currents and weather, appropriate maintenance, and so on). The IMO has held discussions with a view of making this system mandatory. However, MOL has preempted this by installing SEEMP on its tankers in January 2011, with plans to install it on all other vessels in the future.

**Increasing Transportation Efficiency with Larger Ships**

MOL believes that the introduction of larger vessels and improvement of propulsion are effective measures to fulfill the social responsibility of the shipping industry to meet burgeoning international demand for ocean shipping and, at the same time, to prevent global warming. In December 2007, MOL took delivery of the *Brasil Maru* (approx. 320,000 DWT), one of the world's largest iron ore carriers. The *Brasil Maru* boasts her very large size with excellent propulsion and an energy-saving design such as propellers specially designed to improve propulsion efficiency. These qualities earned the *Brasil Maru*



Brasil Maru iron ore carrier

selection as the “Ship of the Year 2007” by the Japan Society of Naval Architects and Ocean Engineers.

### Approaches to Preventing Air Pollution

#### NOx (Nitrogen Oxide)

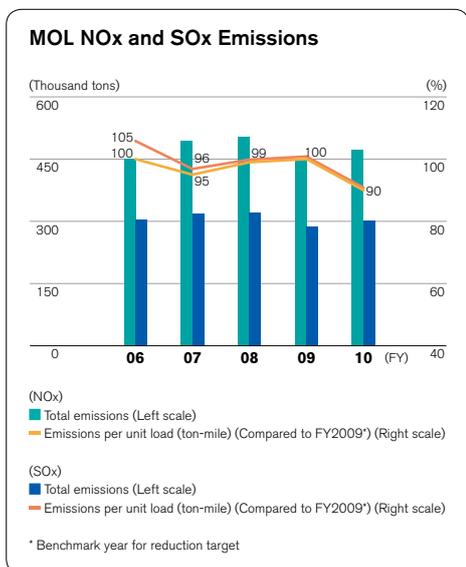
NOx is generated when nitrogen contained in fuel oil and air binds with oxygen in the air at high temperatures when fuel burns in the engine. NOx emissions can be reduced to some degree by controlling the combustion temperature in the engine. MOL is promoting the adoption of electronically controlled engines that reduce NOx, soot, and smoke by more effectively controlling the intake and exhaust valves. We have launched 27 vessels featuring electronically controlled engines beginning with the containership *MOL Creation*, which was delivered in June 2007. We plan to finish construction of another 30 vessels equipped with electronically controlled engines by the end of March 2013 (as of March 31, 2011).

#### SOx (Sulfur Oxide)

SOx is generated by burning fuel oil containing sulfur. In order to reduce the volume of SOx emissions, MOL has set a standard for the sulfur content in the fuel it procures that is stricter than the international treaty governing sulfur content in fuel oil, which was a maximum of 4.5% for general sea areas through 2011 and will be 3.5% from 2012.

#### Average Sulfur Content (%) in Marine Heavy Fuel Used by MOL

FY2005	2.82%
FY2006	2.75%
FY2007	2.62%
FY2008	2.59%
FY2009	2.59%
FY2010	2.58%
MARPOL Treaty (general sea areas)	4.50%

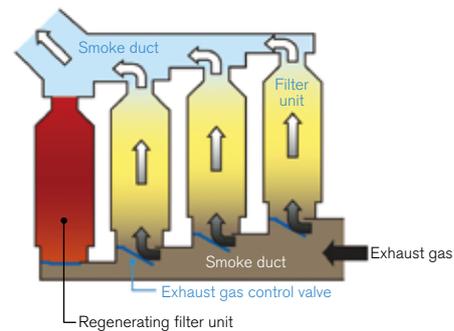


### Reducing Soot/Smoke and Dust

#### Successful Onboard Field Trials of World’s First Marine-use Maintenance-free DPF

In March 2010, we joined with Akasaka Diesels Limited in developing a diesel particulate filter (DPF) for diesel engines on vessels that use marine heavy fuel oil. The maintenance-free device employs an internal heating system to automatically burn off particulate matter accumulated in the filters, which are made of silicon carbide ceramic fibers, allowing the filters to be used continuously. In a test installation on the main engine of an MOL Group-operated coastal ferry, the *Sunflower Kogane*, the device was shown to have removed more than 80% of soot and smoke from diesel emissions. This test marked the world’s first successful use of a self-regenerating DPF on a large vessel using marine heavy fuel oil. MOL and Akasaka Diesels will further upgrade the DPF and confirm its durability for use on ocean-going vessels.

#### Exhaust Gas Purification System



#### Using Onshore Power Supplies

Emissions of NOx, SOx, soot and smoke and other pollutants can be significantly reduced while at berth by reducing the use of conventional diesel power generators and receiving electric power supply from onshore instead.



The containership *MOL Pace* pictured using an onshore power supply system.

Tugboat companies in the MOL Group have been installing electric power supply systems connected to the local electricity grid to power tugboats at berth. This not only reduces the workload for crew members due to reduced use of generators, but also reduces emissions of NOx, SOx, soot and others. In some ports, the shore power supply system is even used to power domestic carriers while at berth.

# Approaches to Protecting Biodiversity and the Marine Environment

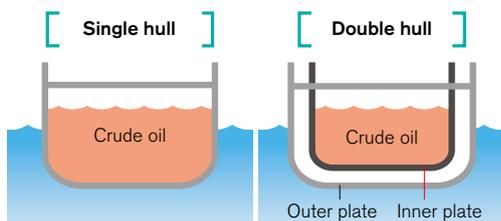


The MOL Group is working to prevent marine pollution caused by marine accidents by rigorously ensuring safe operation. At the same time, MOL is actively pushing ahead with measures to protect the seas and oceans, which are not only our place of business but also the shared heritage of everyone on Earth,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

## Approaches to Marine Environmental Protection

### Double-Hull Tankers

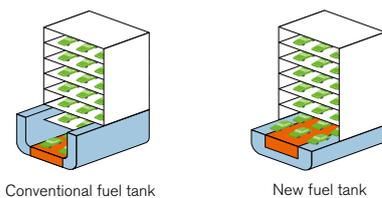
We have adopted double-hull vessels in our tanker fleet in order to prevent spills of crude oil, petroleum products, and chemicals caused by a grounding or collision of vessels. Our fleet of tankers is 100% double-hulled.



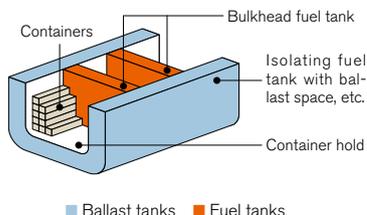
### Double-Hull Fuel Tanks

All vessels carry fuel for their voyages. Therefore, in the same way as with tankers, we have pushed the adoption of double-hull fuel tanks in order to reduce the risk of oil leaking into the ocean in the event of an accident. All vessels delivered since August 2010 have double-hull fuel tanks (or equivalent measures).

#### Car carrier



#### Containership



### Onboard Waste Disposal

On a vessel, which is also a home for seafarers, the same type of garbage as a household is generated. On our operated vessels, based on the MARPOL Treaty, we draw up on-board waste management plans requiring separation, collection, storage and disposal of on-board waste. Waste management officers supervise this process, and work to build thorough awareness of the plan among officers

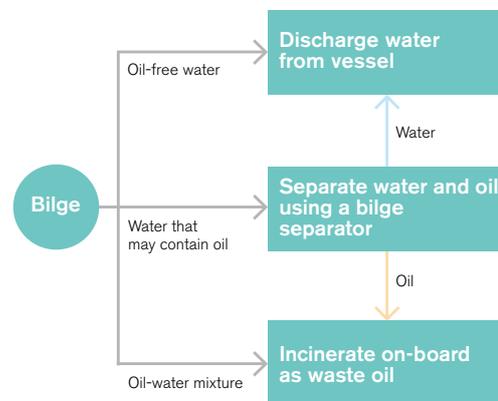
and crew members. Food waste and other biodegradable trash are ground into small particles and disposed of in specified areas of the open sea, and plastic waste is disposed of appropriately on land.

### Proper Processing of Waste Oil

Fuel oil for vessels contains many impurities. Water and other contaminants are extracted by pre-treatment before the fuel is used in engines and other equipment. Waste oil containing water and impurities from pre-treatment is heated in a special tank to remove water, and then incinerated in conformity with environmental regulations.

### Processing Bilge Water

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



### Caring for the Environment When Scrapping Vessels

Aging vessels must often be scrapped in the interest of safe operation and protection of the marine environment. However, measures for workers' safety and the environment have been insufficient when scrapping ships in some countries. When selling a ship on the assumption that it will be scrapped, we check that the scrapping yard takes environmental measures in conformity with ISO14001 (or the environmental management equivalent), and uses scrapping methods and procedures that are sufficiently safe for the environment and personnel. In the international community, in May 2009, the IMO adopted the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009, and is proceeding with ratification toward its enforcement. This treaty prohibits and restricts the fitting and use of treaty-specified hazardous materials. At the same time, it requires vessels to prepare and update inventory

lists showing the quantity and location of hazardous materials on ships over a ship's lifetime. These lists must be handed over to recycling facilities when the ship is finally scrapped. MOL was quick to initiate measures to prepare such lists. Furthermore, in 2010, the company established a task force made up of related divisions in the company, which is working to ensure that the treaty is understood throughout the group, and to share information, including the results of site surveys of scrapping facilities.

## Measures to Protect Biodiversity

The MOL Group's activities could have an impact on biodiversity in the following ways:

1. Cross-border transportation of alien species via ship ballast water, and organisms attached to vessels and containers
2. Impact on eco-system of antifouling ship bottom paints
3. Impact on eco-system of buildings and structures on coasts
4. Impact on eco-system of paper, stationery, etc. used in offices

MOL works to develop and adopt technologies to minimize the impact of vessels on biodiversity. Furthermore, when constructing buildings on shores or the coast, MOL conducts impact assessments with project partners. Moreover, MOL conducts green procurement and recycling in offices. To raise the awareness of employees regarding protection of biodiversity and the natural environment, MOL makes use of in-house communications tools and participates in activities that protect the natural environment. (See page 44 for details.)

### Participation in "Nippon Keidanren's Declaration of Biodiversity" as a Promotion Partner

MOL supports and adheres to the Declaration of Biodiversity by the Japan Business Federation (Nippon Keidanren), and participates as a "Promotion Partner" to clarify this commitment internally and publicly.

#### Nippon Keidanren's Declaration of Biodiversity (Summary)

1. Appreciate nature's gifts and aim for corporate activities in harmony with the natural environment
2. Act from a global perspective on the biodiversity crisis
3. Act voluntarily and steadily to contribute to biodiversity
4. Promote corporate management for sustainable resource use
5. Create an industry, lifestyle and culture that will learn from biodiversity
6. Collaborate with relevant international and national organizations
7. Spearhead activities to build a society that will nurture biodiversity

## Organisms in Ballast Water and on Vessels

Ballast water is discharged when cargo is loaded. It can have an impact on local ecosystems by introducing foreign marine organisms from another location as well as the preservation and sustainable use of biodiversity. This potential cross-border transportation of foreign marine organisms in ballast water has been highlighted as an international issue since the late 1980s. As a result, a treaty on ballast water management was adopted by the IMO in February 2004, and work is proceeding on ratification ahead of enforcement. After 2017, all vessels will be required to treat ballast water to reduce the content of marine organisms to a specified level rendering it harmless. We have developed a ballast water purification system and conducted on-board demonstrations in cooperation with manufacturers and other concerned parties. We obtained the necessary approval for putting the system into use at the Marine Environment Protection Committee 61 (MEPC 61) meeting held in October 2010. In addition, MOL Group company Mitsui O.S.K. Kinkai, Ltd. installed a ballast water purification system on three vessels delivered in fiscal 2010, well before the enforcement of the IMO treaty. This is just one example of Group-wide efforts to render ballast water harmless as quickly as possible.

Marine organisms attaching to the bottom of vessels due to the fouling of ship bottom paint and crossing borders is also an issue in the industry. The IMO is discussing guidelines to prevent this. MOL



Ballast water purification experimental system

is expressing its views on practicality and other aspects through industry groups to contribute to the process of creating international guidelines.

## Ship Bottom Paints

In the past, paint containing tributyltin (TBT), which has a high antifouling property, was used for coating ship bottoms. However, after the harmful effect of TBT on ecosystems was widely confirmed, the IMO adopted an international convention that imposed regulations on the use of ship bottom paints, including TBT paints. The international convention came into force in 2008. MOL began switching to tin-free (TF) paint earlier than this, and as a result, we completed the switch on all of our managed vessels in fiscal 2005.

## Environmental Education

MOL is working to raise employee awareness of protecting biodiversity and preserving nature as well as combating global warming through the following initiatives. Our aim is to synergistically raise both awareness and knowledge concerning the environment and ensure this is applied in day-to-day activities. From this perspective, we intend to continuously enhance and increase environmental education in the company.

#### In-house Newsletter "Monthly Environment"

We distribute a newsletter containing the latest news concerning global environmental protection via the MOL Group's intranet site.

#### Environmental E-Learning

In February 2011, we launched an environmental E-Learning program using our intranet for MOL employees. The program is designed to test employees' general knowledge about environmental protection and their understanding of MOL's environmental strategy and specific environmental protection initiatives.



As part of the midterm management plan, "GEAR UP! MOL," the MOL Group has adopted an environmental strategy aimed at offering business services and solutions that reduce the environmental impact of operations, including promoting a modal shift with ferry transport. Below are examples of achievements by individual MOL Group companies putting the strategy into practice.

## The 5th MOL Group Environmental Award

In order to arouse interest in environmental protection activities among MOL Group corporate officers and employees, and to create incentives for Group companies to rigorously practice environmental management, we introduced the MOL Group Environmental Award in fiscal 2005. Every year, this award recognizes meritorious activities aimed at developing and introducing environmental technology and other environmental activities in the group. Awards are presented at the Group Executive Committee meeting of Group company presidents.

### ● Most Outstanding Performance Award: *Senpaku ISHIN* Project and Technology Research Center Initiatives

Technical Division, Technology Research Center, MOL  
(See pages 10 and 11 for details.)

### ● Outstanding Performance Award: Environmentally-friendly Tugboat Services

*Nihon Tug-Boat Co., Ltd.*

As a company providing tugboat services, Nihon Tug-Boat has been actively setting up active service bases (tugboat jetties) where tugboats can moor away from their home port since 2005. At the same time, this company continues to think of ways to station tugboats as close as possible to where they are called into service. These efforts have resulted in a reduction in the number of return trips to home port, enabling a reduction in navigation distance. This in turn led to a 374-ton reduction in CO<sub>2</sub> emissions in fiscal 2009.

The implementation of slow steaming, introduction of fuel additives and LED lighting, application of an Automatic Identification System and other initiatives are leading to improved fuel efficiency. In terms of slow steaming benefits, we saw a large reduction in CO<sub>2</sub> emissions of 1,336 tons in fiscal 2009. We have also installed garbage treatment systems on individual vessels to reduce and manage waste generated onboard. In addition to this environmental protection activity, we hold joint research meetings with Group tugboat operators, as a forum for sharing and building on knowledge of these activities.



The tugboat *Falcon*

### ● Excellence Award: Reduction of CO<sub>2</sub> Emissions Using Multi-functional Container Chassis

*Utoc Logistics Corporation*

Utoc Logistics Corporation has introduced 45 multi-functional chassis that can be used with both 20-foot and 40-foot containers since April 2007. This means that chassis do not have to be changed for different container sizes, and sending chassis back to the van pool empty can be avoided. By replacing two chassis with one chassis of this type for transportation between Honmoku Pier and Oi Container Terminal, Utoc Logistics has reduced CO<sub>2</sub> emissions by 38 tons, or 45%, a year.



20-foot container being transported



40-foot container being transported

### ● Excellence Award: Promotion of Green IT

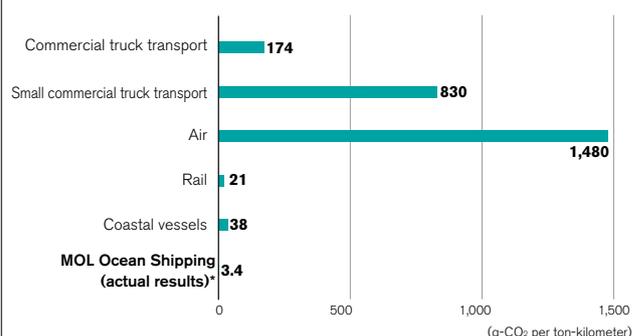
*MOL Information Systems, Ltd.*

As part of efforts to promote the adoption of green IT (environmentally-friendly IT), MOL Information Systems has been actively replacing rented PCs at MOL Group companies with power-saving models. Furthermore, by reducing the number of physical servers through server virtualization, this company has helped reduce the environmental load at MOL Group offices.

## Modal Shift Promotion

Modal shift refers to switching the mode for transporting cargo from trucks and other land transport to domestic carriers, ferries and other vessels, as well as rail, which can transport large volumes of freight with a comparatively small environmental burden. As one of

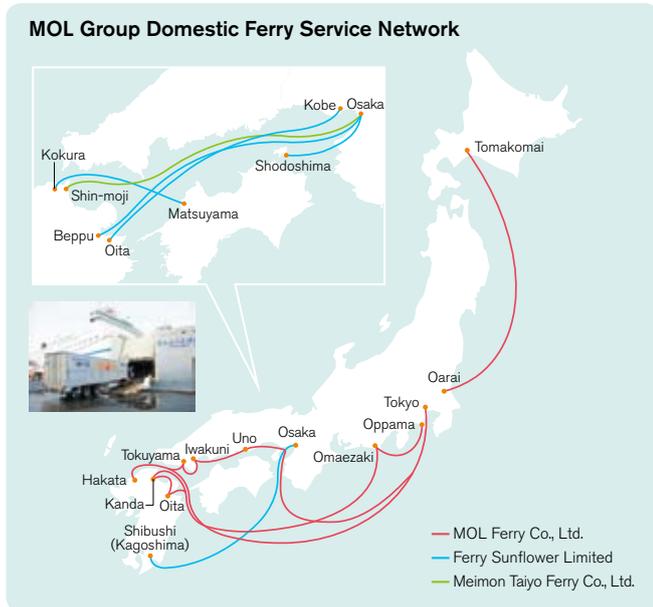
**Per-Unit-Load CO<sub>2</sub> Emissions by Mode of Transport—Comparison of CO<sub>2</sub> emissions carrying 1-ton cargo for 1 km**



Note: Selected from information for joint sessions of relevant councils related to domestic measures to address global warming (FY2001)

\* Emissions from all MOL vessels operated in FY2010

the largest ferry and domestic shipping services firms in Japan, the MOL Group is working to promote modal shifts in various ways. These include publicizing CO<sub>2</sub> reduction benefits on its website and the *ISHIN-II* project for creating a next-generation ferry (See page 10 for details).



### Solar Power Generation Systems and Onshore Power Supply Systems

Meimon Taiyo Ferry Co., Ltd.

In fiscal 2009, with the goal of reducing CO<sub>2</sub> and other exhaust gases, this company fitted *Ferry Fukuoka 2* with one of the world's largest solar power generation systems and the first commercial-use onshore power supply system in Japan. The solar power generation system generates 50 kW of electricity, equivalent to the amount of power consumed by 16 ordinary households, from 280 solar panels placed on the vessel's upper-most deck. The onshore power supply system brings in 6,600 volts of high-voltage electricity from the shore when the vessel is docked, thereby achieving the equivalent of engine idling-stop for vessels. Meimon Taiyo Ferry's initiatives have won external recognition, including an outstanding achiever for environmental protection award in fiscal 2010 from the director-general of the Kinki Transport Bureau.



Solar power generation system



Onshore power supply system

### Initiatives to Reduce Environmental Load at Container Terminals

Utoc Corporation

Shosen Koun Co., Ltd.

MOL and MOL Group company Utoc Corporation installed one of the largest solar power generation systems in Tokyo at the Tokyo International Container Terminal. The system generates 200 kW of power. In 2007, 1,200 solar panels were installed on the roofs of the

gate building, where trailer trucks enter and exit the terminal, and the vehicle wash building. In fiscal 2010, this system generated approximately 232,000 kWh of power, which covered about 50% of the power needs for the control building. In addition, Utoc Corporation and Shosen Koun Co., Ltd. have also introduced hybrid transfer cranes at their container terminals in Tokyo and Kobe, respectively. These cranes consume approximately 40% less fuel than conventional ones.



Tokyo International Container Terminal

### Sales of PBCFs and Other Products With Environmental Benefits

MOL Techno-Trade, Ltd.

In addition to selling products that offer environmental benefits\*, MOL Techno-Trade places top priority on environmental protection, in activities such as fuel oil supply to ships. In fiscal 2010, cumulative sales units of Propeller Boss Cap Fins (PBCFs) reached 1,900 (See page 31 for details).

\* Products with environmental benefits

Examples of products used by the MOL Group which benefit the environment include: PBCFs, IZ energy-saving lighting, Adgreencoat and ZEFFLE Infrared Reflective coating that controls temperature rises in cabins, "SANWA Aerators," which efficiently dispose of waste water, and "BY • FAR Z," a relatively environment-friendly detergent to disperse oil.

### Efforts to Reduce the Environmental Impact of Cruise Ships

Mitsui O.S.K. Passenger Line, Ltd. (MOPAS)

This company has made an effort to reduce the environmental impact of its cruise ship—the *Nippon Maru*—not only in navigation, but also in the aspects unique to passenger ships. The company uses eco-friendly toilet paper, lunch boxes, and copy paper, exchanges towels in passenger quarters when requested, takes steps to reduce paper bags and packaging for all items in the gift shop, and seeks to enlist the cooperation of passengers to reduce environmental impact.



The cruise ship *Nippon Maru* (renovated in March 2010)

### Developing a Beverage Can Recycling Business to Promote a "Recycling-oriented Society"

Kusakabe Maritime Engineering Co., Ltd.

This company has engaged in resource recycling since 2004 at can recycling plant "Tri-R-Kobe." The plant turns collected empty beverage cans into pellets, and sells them as deoxidizing agents for use in steelmaking. By using natural gas, which has relatively low CO<sub>2</sub> emissions, as fuel for the plant, and generating recycling gas inside its furnaces, the plant is designed to avoid harming the environment.



Pressed cans



Commercially-recycled aluminum pellets



The MOL Group is enhancing recruitment activities, training programs and various other systems with the aims of securing and developing employees who can create new value and ensuring the growth of both the MOL Group and individual employees. The Group also endeavors to enhance employee health and develop workplaces that instill peace of mind in employees in line with an individual's stage in life. Under the midterm management plan, we have set a number of numerical targets, and are working to achieve those during the term of the plan.

## Recruitment and Human Resources Development

In recruiting employees, MOL conducts fair recruitment activities in accordance with profiles of the types of people the company is looking for. Regarding human resource development, MOL regards an employee's first 10 years in the company as a cultivation period. Training falls into two broad categories: on-the-job training (OJT) and off-the-job training (OFF-JT). The OJT system develops employees by exposing them to jobs in various workplaces. Meanwhile, OFF-JT includes position-specific training and on-board training to gain experience on the frontlines of our business. Furthermore, in order to develop global human resources who can act independently and create new value in the expanding global marketplace, we run overseas practical training and foreign language training courses for younger employees, as well as management skill-enhancement training for mid-level employees. In addition, we run MOL Group Management Schools to develop future leaders of the MOL Group, and MOL Group Executive Seminars targeted at executives of Group companies.

### Required Attributes



Training before the first assignment on-board (the training vessel *Fukae Maru*)



The POWER program in the containership division is an intensive practical training program for young management candidates of overseas affiliates and subsidiaries



On-board training (Containership *MOL Matrix*)

## HR System and Evaluation System

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

## Consideration for Health Care and Work Environments

In addition to complying with laws and regulations, we have introduced the following systems and structures for managing employee health and enhancing working environments so that employees can work energetically, and in good health, both physically and mentally.

### Health Management

- Appointed a person responsible for promoting health management in the Human Resources Division
- Implement yearly medical check-ups and follow-up
- Hold monthly Health Management Meetings (Consultations with industrial physician, labor union and Human Resources Division for promoting safety and good health)
- Provide daily medical services at the company clinic in the head office
- Implement medical exams before, during and after overseas postings for employees working overseas
- Subsidize breast cancer and cervical cancer screening fees for female employees
- Implement regular mental health consultations at key worksites in Japan
- Implement online mental health self-evaluation
- Conduct yearly organizational mental health review
- Conduct mental health seminars for managers and other employees
- Formulate countermeasures against new influenza strains
- Implement measures to reduce overtime work (implement no-overtime days, strengthen processes for approval of overtime work)
- Implement medical check-ups and recovery leave for employees spending an extended period of time at worksites
- Open massage room (inside the Head Office building)

### Care for Working Environments

- Accept various consultations in the Counseling and Aid Center in the Human Resources Division, in the head office (The Counseling and Aid Center receives various requests for consultation from sea- and land-based staff, past employees and family members, and maintains strict confidentiality. Matters consulted on include workplace human relations, work-related worries and harassment, as well as personal problems.)
- Implement Casual Days (every Friday, casual every day between June and September)
- Introduce safety confirmation system to confirm safety in a disaster

## Instill an Awareness of Human Rights

The aforementioned Counseling and Aid Center in the Human Resources Division is also responsible for human rights education. The harassment help desk serves an important function in protecting human rights. We also conduct human rights training at all levels from the time a person joins the company so that all corporate officers and employees learn to respect and understand other individuals whether in the workplace, at home or in the community. Furthermore, the company reports information to employees regarding human rights, including announcements concerning Human Rights Week, on the intranet. In addition, before Human Rights Week, we solicit human rights slogans and give awards to the best entries, as part of human rights awareness-raising efforts.

## Systems that Support Diverse Human Resources and Work Styles

MOL operates various systems with the aim of utilizing diverse human resources and offering employees a variety of work formats, so that employees are motivated and can concentrate on work.

- Maternity leave, morning sickness leave, childbirth leave, and child-care leave: employees can take up to 2 years for child-care. (Since the introduction of this leave system in fiscal 1992, around 80 employees have taken this leave.)
- Shorter hours and exclusion from overtime for employees with young children: This system was introduced in fiscal 2010.
- "Refresh" leave: Employees are allocated extra holidays after 15 years and 25 years of continuous service.

### Land-based Employees by Gender and Position

	March 31, 2009		March 31, 2010		March 31, 2011	
	Men	Women	Men	Women	Men	Women
Group leaders and above	239	2	235	4	215	6
Managers	165	12	165	10	187	8
Below manager level	298	191	290	196	282	195
Total	702	205	690	210	684	209
	907		900		893	

Number of Industrial Accidents (Land-based; Excludes Commuting Accidents)		
FY2008	FY2009	FY2010
0	1	0

Number of Leave Days Due to Industrial Accidents		
FY2008	FY2009	FY2010
0	0	0

- Nursing care leave: Employees may take up to 2 years' nursing care leave.
- Re-employment system for mandatory retirees: MOL has introduced an active senior program in response to a law in Japan enacted to encourage stable employment of workers who have reached the mandatory retirement age.

## Meeting the Needs of Expatriate Staff and Locally-hired Employees

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



MOL (Europe) B.V. Rotterdam office PT MOL Auto Carrier Indonesia

## Relationships with Labor Unions

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

Average Number of Annual Leave Days Taken (Including Summer Vacation)		
FY2008	FY2009	FY2010
12.1	12.8	12.4

Number of Working Mothers (Mothers with Children Under the Age of 15)		
FY2008	FY2009	FY2010
29	33	33

Number of Employees Using Child-care Leave System (Excluding Land-based Contract Employees)		
FY2008	FY2009	FY2010
11	8	7

Ratio of Female Employees Taking Child-care Leave		
FY2008	FY2009	FY2010
100%	100%	100%

Number of Employees Taking Maternity Leave (Pre- and Post-Childbirth) (Excluding Land-based Contract Employees)		
FY2008	FY2009	FY2010
3	2	4

(MOL non-consolidated data)

## Voices from the Forefront

### Working Hard Every Day With the Understanding and Cooperation of the Company and My Family

I returned to work in May last year after taking child-care leave. At present, I am responsible for land-based staff in Japan in the Human Resources Division. Something I didn't realize before, but do now after having actually used the system, is that the company has designed easy-to-use systems for employees from many perspectives. I have come to appreciate the importance of these systems. Based on this newfound appreciation, I go about my duties thinking of how I can support employees so that they can work with peace of mind, while being true to the essence of the company.

My child is still young, so I need to take a lot of unplanned time off. However, my workmates cover for me and understand my situation. I really appreciate their thoughtfulness and understanding.

The support I receive from my family and colleagues motivates me to work hard day in and day out.



**Masumi Hida**

Human Resources Planning Group,  
Human Resources Division  
(Joined MOL in 2002. Senior Assistant.)

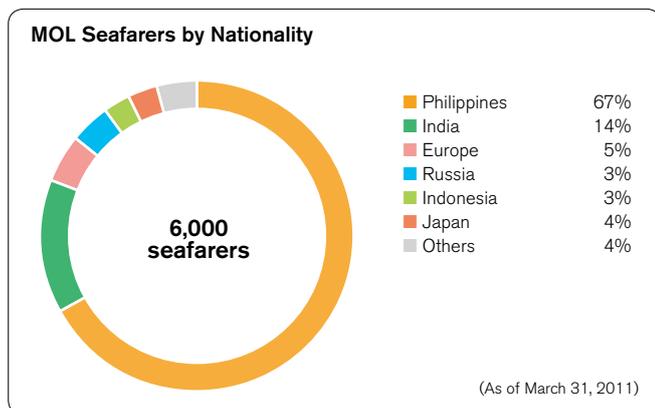


Operating an ocean transport company is impossible without seafarers. Seafarers ensure safe operation and manage vessel operations, the very basis of our business. In this section, we look at our basic policy, care for seafarers and their families, before taking a look at the lives of seafarers at sea.

## MOL's Basic Policy

The safe operation of MOL-operated vessels is underpinned by skilled seafarers. They are therefore an invaluable "asset" for the company. MOL works to develop skilled seafarers during their work at sea as well as through training and education programs on land. A key policy in MOL's current midterm management plan, which covers the period from fiscal 2010 to fiscal 2012, is to "secure skilled seafarers and keep them well trained." Through various initiatives, we aim to develop people who support safe operations.

These measures are not limited to Japanese nationals. Some 6,000 MOL seafarers crew approximately 300 vessels, and the large majority of these seafarers are foreign nationals from more than 20 countries; Japanese seafarers account for only around 4% of all MOL seafarers. MOL therefore employs and promotes skilled individuals from around the world, irrespective of nationality. MOL also pays due consideration to this diverse, multinational workforce in terms of the working environment on-board and on shore as well as remuneration and benefits. At the same time, we run high-level development and training programs to produce outstanding seafarers who are highly motivated and possess excellent skills and knowledge.



## Employing Diverse Human Resources

We have established bases for recruiting, training and developing seafarers around the world. We have also set up a scholarship system at overseas maritime academies to support aspiring seafarers. In countries lacking the necessary qualification systems within academic curriculums, we have introduced an internship system so that students can gain the necessary experience for earning qualifications. Promising young seafarers from various countries who have received such support will be employed as personnel who have the potential to be key MOL members for safe operation in the future.

Meanwhile, MOL employs around 20 Japanese seafarers (seagoing employees) in a typical year, and since fiscal 2005, has employed female seafarers. Furthermore, we offer opportunities to university graduates other than from cadet training schools to acquire seafarer qualifications after they join the company. In fiscal 2011, female employees who graduated from regular universities are aiming to also become qualified seafarers.

## Education and Training for Seafarers

Developing and securing a stable workforce of excellent seafarers who meet MOL's skill standards is a crucial point in maintaining safe vessel operations. MOL has crew training centers in eight locations in six countries, including the Philippines, India, Russia, Indonesia and Montenegro, as well as Japan. At these MOL training centers, seafarers undertake education and training programs before taking up a position on a vessel. The centers offer a variety of training based on MOL's unique and uniform curriculum. Each training center provides a variety of training according to the type of vessel to which a seafarer is assigned, ranging from classroom lectures on theory to practice on vessel piloting and loading/unloading simulators and real engines. This training enables seafarers to operate the latest on-board equipment and machinery and comply with new laws and regulations. MOL sets its own skill and knowledge requirements for every seafarer as a technical expert at the front-line according to his/her rank in addition to the standards set by the various international maritime treaties. In addition, experienced captains and chief engineers are appointed as on-board OJT training instructors. By pointing out and giving instruction for correction of unsafe actions, these experienced seafarers not only improve seafarer skill, but also foster stronger awareness of safety.



MOL's Training Center in the Philippines



A trainee undertakes a drill at a training center

## The Role Expected of MOL Seafarers

After employment, MOL seafarers engage not only in ship operation but also in land-based vessel and seafarer management, providing required technical support for loading and unloading cargo, and other duties that support operations. Such land-based positions are open broadly to all the seafarers, and seafarers of many different nationalities

support the company's safe operations in various locations that are not their home countries, such as Japan, Singapore, Hong Kong and the U.K. In the case of Japanese seafarers, for the first 10 or so years of their careers, they concentrate on serving aboard ships and accumulate competence as future captains and chief engineers. These employees are posted to land-based positions for a certain period of time where they utilize their experience, or they follow their own career paths by serving aboard various types of vessels. Thus, MOL seafarers are required to serve as all-around players to lead the whole MOL Group.

### Training Ship Utilization

One initiative unique to MOL is the ownership and operation of the *Spirit of MOL* training ship as an important training facility for educating new seafarers and ensuring safe operation. New mariners, who represent the future of the company, learn specialist maritime knowledge and skills through safety and practical training, and by living together with other interns of various nationalities, they develop pride and a sense of belonging as members of the MOL Group.



Training aboard the training ship "*Spirit of MOL*"

## A Good Working Environment for MOL Employees and Care for Employees' Families

As part of measures to create a good working environment for seafarers, MOL aims to reduce LTIF\* (Lost Time Injury Frequency). As a result of running safety training programs and improving working environments, MOL achieved a better performance in this regard

than planned in fiscal 2010 (See page 8 for details). In the second half of 2012, a maritime labor convention imposing strict requirements to manage on-vessel work is expected to come into force. MOL is making preparations to implement changes before this convention becomes effective.

In terms of welfare, MOL conducts regular health checks and mental health consultations for seafarers. At the same time, MOL cares for seafarers and their families, who must spend considerable time apart. MOL has established consulting offices for seafarers and their families in the Human Resources Division at the head office as well as in locations overseas, and offers services that are closely tailored to particular countries and regions. For instance, we hold gatherings for seafarers and their families around the world that are attended by Head Office executive officers. These family gatherings include briefings to explain the current status of the company, question-and-answer sessions, and social meetings. In these and other ways, MOL is working to strengthen the support framework for families at home. Moreover, MOL is introducing high-speed Internet connections aboard vessels to make it more convenient for seafarers to exchange e-mail with family and friends during voyages.



A gathering for seafarers and their families in the Philippines

In addition to the above, seafarers who have demonstrated leadership and made notable achievements in terms of safety or efficiency of vessel operation are recognized each year, and invited along with their families to the head office in Tokyo to receive commendations directly from the president of MOL. Each year at the ceremony, the faces of the commended seafarers reflect the pride and joy they feel at doing their utmost to contribute to safe vessel operation. These initiatives for seafarers are reported to all seagoing employees and their families through our English-language newsletter, and serve to strengthen the bonds among the seafarers of the MOL Group.

\* Number of work-related accidents per hour per one million people.

## Voices from the Forefront

MOL's safety culture is fostered through teamwork and communication.

Teamwork requires all-around participation and at the same time transparency.

True, transparent, two-way communication and feedback are of immense importance in building teamwork among the various participants. This encourages new ideas to come to the fore, providing quicker and better solutions to problems. This continuous practice of analyzing and implementing solutions builds a sense of confidence as well. In the process, this culture provides an environment conducive to cleaner, safer, and healthier growth. I think our team worked well together, which is very important.

I have promised myself that I will work with even greater effort and energy to improve my performance.

### Santanu Ghosh

Chief Engineer  
Containership *MOL CELEBRATION*  
Recipient of 2010 Outstanding Seafarer Award



Mr. Ghosh and his wife (fifth and sixth from the right) at the 2010 award ceremony for outstanding seafarers.

I am so happy to receive this award, and that MOL invited us. This shows how MOL values the families of its people and is concerned about them.

### Mrs. Purba Ghosh

# A Day in the Life of a Seafarer

Seafarers are broadly divided into three departments: the Deck Department, which is responsible for keeping watch and navigation; the Engine Department, which operates and maintains vessel engines and other equipment and machinery; and the General Affairs Department, which prepares meals and undertakes other general duties. Let's look at a typical day in each department.



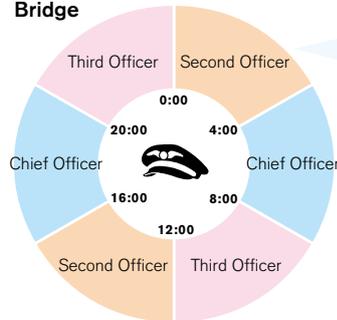
## Deck Department

The main duties of the Deck Department are as follows:

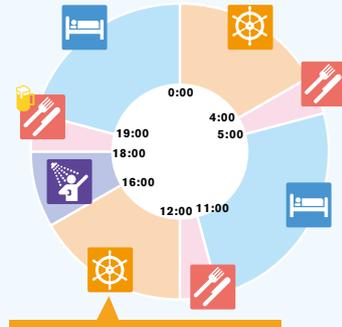
- Lookout and steering/navigation of the vessel
- Safe cargo transport, loading and discharging operations when docked
- Hull maintenance (Removing rust from decks and other areas, applying paint)

As depicted in the diagram to the right, lookout on the ship's bridge is a 24-hour system, involving 6 shifts of 4 hours. Each shift is staffed by an officer and a helmsman.

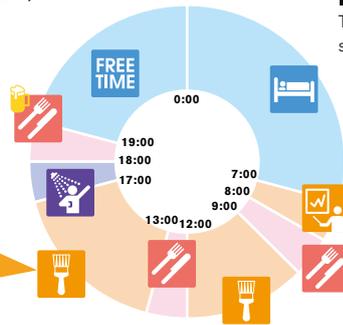
### Watch Schedule on Vessel's Bridge



### A Typical Day for a Second Officer



### A Typical Day for the Deck Department (Hull Maintenance Team)



The captain and officers plan a ship's voyage.



The captain and a Second Officer keep watch



Crew paint and repair the cargo hold.



A morning work plan meeting

The day in the maintenance team starts with a work plan meeting at 7:00 a.m. and continues in principle until 5:00 p.m.

## Engine Department

This department is responsible for all electrical, plumbing and machinery repairs and maintenance.

It is responsible for keeping engines in the best operational condition at all times. Operating data for every piece of equipment and machinery is logged every day, to aid in the early detection of abnormalities.

The day in the engine room starts with a work plan meeting at 7:00 a.m., and continues in principle until 5:00 p.m.

A rotating engineer is on call in case of engine trouble during the night, when it is in "M zero" (unattended) operation.

### A Typical Day for the Engine Department



A team member inspects the engine room



Engine Department members carrying out repair work

## General Affairs Department

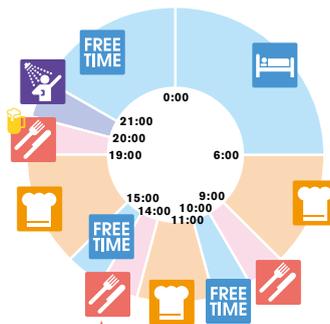
This department takes responsibility for preparing meals for the seafarers and purchasing and managing food-stuffs, cleaning, and health and sanitation.

Their working hours are from early morning to night because they must prepare breakfast, lunch, and dinner. They take their meals and breaks during slow times.



The crew enjoy a meal. Special meals are prepared to celebrate the New Year and other occasions.

### A Typical Day for the General Affairs Department





MOL aims to be a company that builds synergy, supports sustainable growth and benefits both the company and society. We therefore carefully consider social issues to tackle, and work to help solve them based on the following three principles. Guided by these principles, we proactively undertake social contribution activities that only an ocean transport company with a global network can.

## Principles of MOL's Social Contribution Activities

MOL engages in social contribution activities on the basis of the following principles.

- I. Contribute to the United Nations Millennium Development Goals as a company growing in step with the global economy and social development.
- II. Contribute to protecting biodiversity and preserving nature as a company that impacts the environment to an extent and as a company that does business on the ocean, a rich repository of living organisms.
- III. Contribute to local communities as a good corporate citizen.

Below, we introduce some of the main activities based on the above principles. In 2010, MOL established a new system for proposals on social contribution activities, whereby it widely solicits ideas from MOL Group employees worldwide to enhance its activities. The latest information and details of these activities can be found on our website.

 <http://www.mol.co.jp/csr-e/society/index.html>

## Contribution to UN Millennium Development Goals

### Transporting Shoes for Children in Africa

In 2010, MOL began helping in the transport of shoes donated to children in Zambia in support of a project by the Japanese Organization for International Cooperation in Family Planning (JOICFP), an international NGO. Under this project, JOICFP donates second-hand shoes to children in Zambia, where it works closely to safeguard maternal and child health. The shoes are handed out to residents who come in for prenatal and infant checkups. Besides motivating residents to come in for health checks, this program serves as a useful health education measure that helps to prevent parasitic diseases, tetanus and other ailments.

Along with the provision of containers for shipment from Japan free of charge, MOL cooperates in ocean transport to the South African port of Durban, which also serves as the gateway port to Zambia. (Similar cooperation is provided to shipments bound for Ghana and Tanzania.) In fiscal 2010, MOL helped ship nine 20-foot containers.



Photo provided by JOICFP

### Transporting Medical Vehicles to Cambodia

MOL is helping transport medical vehicles and other cargo to Phnom Penh in support of the certified NPO Side by Side International (SBSI). SBSI receives donations of used ambulances, fire



engines, medical equipment and other items in Japan, and sends them mainly to Cambodia. In Cambodia, SBSI is working to build a first-aid system, and support emergency hospitals as well as pregnant women, mothers and children in remote areas with little access to healthcare services.

In fiscal 2010, MOL helped ship five 40-foot containers of medical vehicles and equipment.

### Transporting Wheelchairs for Children in Paraguay

In December 2010, MOL cooperated with the Volunteers Group to Send Wheelchairs to Overseas Children, a certified NPO, to transport two 40-foot containers of wheelchairs to the landlocked South American country of Paraguay. In Japan, children's wheelchairs tend to be replaced every two to three years as children outgrow them. The situation is different in developing countries, where the high price of these chairs makes them largely unattainable to those in need. As a result, many physically disabled children are unable to venture outside. The wheelchairs transported by MOL were donated to FUNDACIÓN TELETON, a government-certified NPO in Paraguay.

In May 2011, His Excellency of the Embassy of the Republic of Paraguay in Japan visited MOL to express his appreciation for the company's cooperation.



Ceremony to gift wheelchairs for children

**Supporting UN World Food Programme and Participating in Related Events**

MOL participates in the Japan Association for the UN World Food Programme, an organization that coordinates private-sector support for the program, and provides support for it in the form of donations and the like. Employees also volunteer and participate continuously in a charity event, "End Hunger: Walk the World," organized by the program and the association to help prevent children around the world from going hungry.



**Contributing to Protection of Biodiversity and Preserving Nature**

**Beach Cleanup**

Since 2000, we have conducted beach cleanups at two locations on an ongoing basis, Odaiba Seaside Park in Tokyo and Yuigahama Beach in Kamakura.



**Tree Planting in Thailand**

Celebrating its 40th anniversary in 2008, Mitsui O.S.K. Lines (Thailand) Co., Ltd. established the CSR Committee to raise employee awareness of social contribution and instill pride in the company. The employee-led committee decided to conduct a tree-planting campaign and beach cleanup in fiscal 2010, the third year of the committee. Some 230 officers and employees helped plant a total of 500 seedlings.



**Assisting in Marine and Hydrographic Research**

For many years, MOL has observed marine weather and reported its observations to the Japan Meteorological Agency and other weather organizations around the world. The contribution of these activities to advances in meteorological services was recognized in 2010 on the occasion of the 135th "weather day" in Japan with a commendation awarded to the LNG carrier *Senshu Maru* by the Minister of Land, Infrastructure, Transport and Tourism.



LNG carrier *Senshu Maru*

**Contributing to Local Communities**

**Private-sector Company Training for Teachers**

Since 1994, MOL has accepted participants in an internship program to instruct teachers about private-sector companies sponsored by the Keizai Koho Center-Japan Institute for Social and Economic Affairs. In fiscal 2010, MOL hosted 8 teachers from elementary schools in Tokyo for internship sessions and onsite observation that took place over 3 days during summer vacation in August. In addition to topics such as ocean shipping and an overview of MOL businesses, the internship sessions highlighted MOL's approach to CSR activities, and participants toured the Safety Operation Supporting Center (SOSC). As an opportunity to see MOL's operations up-close, they also visited MOL's container terminal and distribution center in Ohi, Tokyo and the MOL Technology Research Center, and experienced firsthand the bridge simulator.



Participants tour the SOSC

**Disaster Relief Activities**

Over the past year, there have unfortunately been a string of calamitous natural disasters that have severely affected people's lives. In response to the disasters listed below, MOL made financial donations to help with local relief efforts, and transported relief supplies.

- April 2010 Major earthquake in Qinghai Province (China)
- August 2010 Major flooding in Pakistan
- March 2011 Great East Japan Earthquake (See P.12-13 for further information)

**Donation of Daily Commodities to Welfare Facilities (Vietnam)**

Employees of Mitsui O.S.K. Lines (Vietnam) Co., Ltd. visited facilities caring for orphans and elderly homeless people in Hanoi, and made donations of daily commodities and medical fees.



**Courses on International Customs Clearance and Trading Rules (Kenya)**

MOL Group company Japan Express Co., Ltd. dispatched an executive to a project conducted by Japan International Cooperation Agency (JICA) to lecture on compliance and rules in international trade to customs agents in five east African nations.



## Third-Party Opinion



**Masaatsu Doi**  
Associate Professor,  
Faculty of Regional Policy,  
Takasaki City University of Economics

This year's Environmental and Social Report issued by Mitsui O.S.K. Lines is organized based on performance and issues for the initial fiscal year of the company's three-year midterm management plan, "GEAR UP! MOL," which was launched in fiscal 2010. The plan broadly incorporates three strategies, and two of the strategies, "Enhancing Safe Operation" and "Environmental Strategy," are directly related to MOL's social responsibilities as a corporation.

With regard to enhancing safe operation in particular, steady progress is being made. Since establishment of the Safety Operation Supporting Center (SOSC) at the head office in 2007, there has been a steady decline in navigation-related incidents (see page 22). In addition, in fiscal 2011, MOL created a new video entitled "Forging Ahead to Become the World Leader in Safe Operation" to promote greater awareness of MOL's operational safety initiatives among stakeholders. The video clearly informs people inside and outside the company of the concrete safety systems in place on ships. Other MOL policies for safe operation, including utilization of a training vessel, are a step ahead of the industry standard. These initiatives convey MOL's strong commitment to safety and clearly show that "Never Forget 2006" was not just a slogan.

Behind MOL's initiatives for safe operation are four major marine incidents that occurred in 2006, the collision and sinking of an

iron ore carrier in May 2010, and multiple, ongoing attacks by pirates in Middle Eastern waters. In particular, the pirate attack that took place off of Oman in March 2011 resulted in the pirates being transported to Japan and prosecuted in court. It was the first such case in Japan and drew considerable public attention. Since 2006, MOL has consistently made efforts to disclose the details of these incidents when they have occurred and information on measures taken in response. At the same time, there are many aspects of such acts of terrorism and piracy that go beyond the capabilities of private-sector companies. As a leader in Japan's shipping industry, it will likely be necessary to also quickly develop a framework for cooperation with the government and related institutions.

This year's report reveals the continuing progress of individual measures related to CSR, but on the relationship between the midterm management plan and CSR activities policy, there is still room for improvement. For example, strategic goals of "CSR that fulfills MOL's responsibility" and "CSR activities that benefit both the company and society" seem fairly abstract, and there is a chance that the intended specifics of such goals will not be readily apparent to stakeholders. It will likely be necessary to create an overall strategy for CSR that orients each specific issue and is clearly related to the midterm management plan.

Finally, the Great East Japan Earthquake caused no major damage at the level of MOL's main business because the company's business continuity plan functioned effectively. At the level of social contribution activities, various support systems were rapidly put in place through MOL's main business, including aid contributions, free emergency aid supply and free day-use service of a cruise ship. This response was predicated on day-to-day business activities, starting with crisis management, and drew on MOL's traditions and experiences to date.

MOL's initiatives aimed at "becoming the world leader in safe operation" are just getting started. I hope to see MOL lead the industry in advancing CSR management by putting "GEAR UP! MOL" into practice.

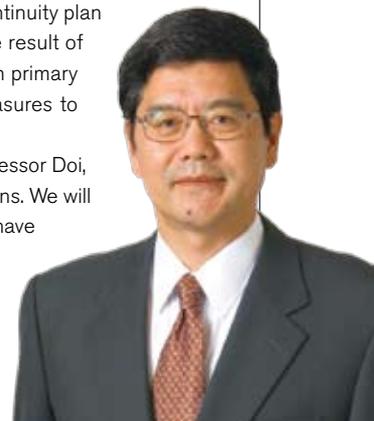
### Addressing the Challenge

Professor Doi commented that MOL is a step ahead of the industry in safe operation measures, that our business continuity plan functioned in the Great East Japan Earthquake and support systems were quickly put in place, and that this was the result of MOL's traditions and experience. The invaluable views of Professor Doi, who researches the practice of CSR through primary business operations, have reinforced our commitment to further bolstering all of our CSR initiatives, including measures to ensure safe operation.

On the relationship between the midterm management plan and CSR activities policy, which was brought up by Professor Doi, we strove to incorporate both aspects into CSR targets and provide explanations in the special reports and other sections. We will make additional efforts to make the relationship more readily apparent to stakeholders and show clearly what we have achieved in working toward the goals.

We believe that this will help contribute to the kind of harmonious development between companies and society that is the main subject of Professor Doi's research.

**Kenji Yokota** Managing Executive Officer, Vice Chairman of the CSR and Environment Committee



# Q&A With Readers

**MOL administers a questionnaire that broadly solicits feedback from people outside the company in order to help improve CSR activities and future Environmental and Social Reports. We received 532 responses (514 valid responses) to the questionnaire we conducted on Environmental and Social Report 2010 issued last year. Here we introduce several typical questions and our responses.**

**Q1:** Ships are able to transport a lot of cargo at once, so I think they will be an important mode of transport in the future as well. I think that ships will be an important key for both China, which is experiencing rapid economic growth, and Japan, which is connected to China by the ocean. However, to be honest, people are not very familiar with shipping, and I think it is fair to say people have very little knowledge of the actual situation. I learned a lot about your activities through this questionnaire, but even though you are doing wonderful things, I still think they are not very well known. (Female / teenage / student)

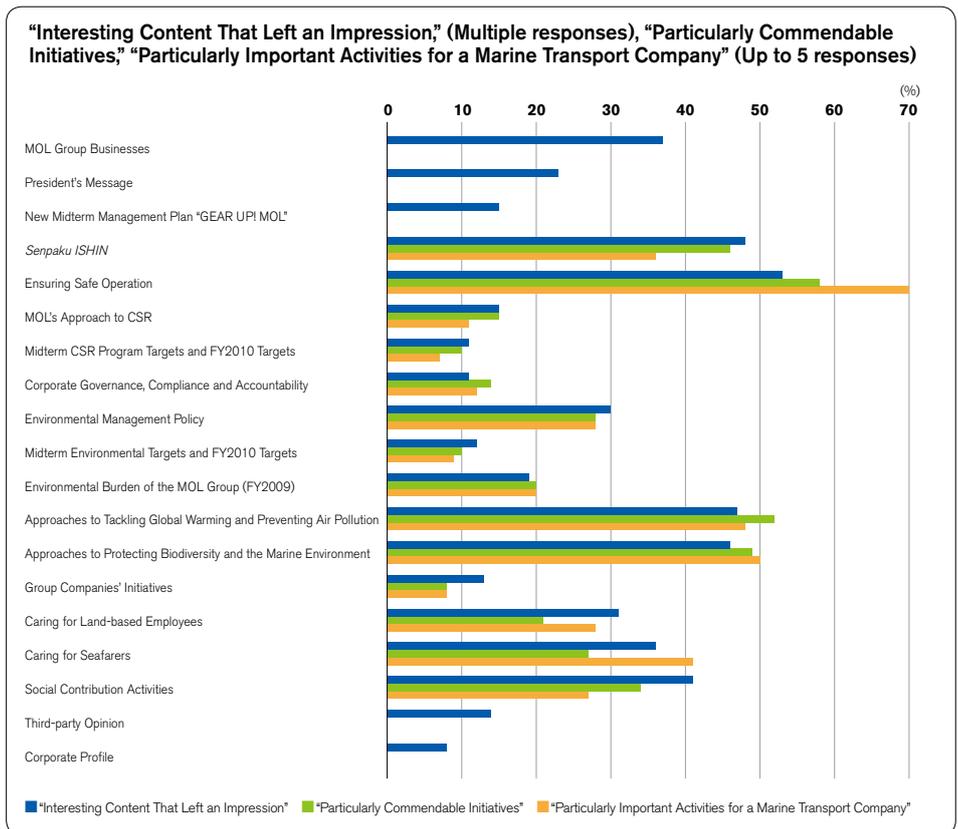
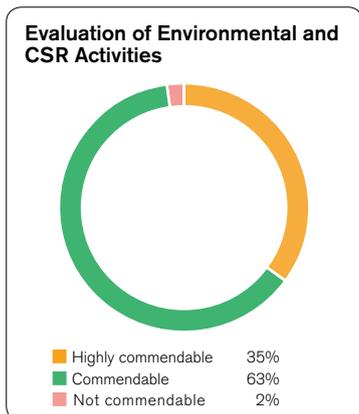
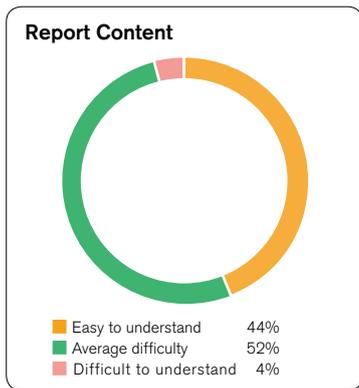
**A1:** Thank you for your comments. I think you are exactly right in saying ships will be an important key. China and other developing countries are achieving rapid growth by importing large amounts of raw materials and energy sources like crude oil and iron ore and exporting products made in their own countries, and almost all of these goods are transported by ship. Ships that can transport large quantities are also an efficient, environmentally-friendly mode of transport. Marine shipping supports global growth while maintaining safe operation and helping protect the environment, so in order to make it better understood by everyone, we plan to further enhance our website and public relations activities as well as publishing the Environmental and Social Report.

**Q2:** I had no knowledge of the MOL Group until now, so reading the report was extremely interesting. I got a sense for the importance of initiatives to ensure safety and address environmental issues. I also thought that hearing more from employees working in various places would deepen understanding of the MOL Group from a human interest standpoint. (Female / 20s / other)

**A2:** Thank you for your helpful comments. Just as you point out, we think it is very important to hear from frontline employees in order to increase people's familiarity with our initiatives. In this year's report, we tried to provide more information on the daily lives of seafarers and include more accounts from employees in the field. The "Voices from the Forefront" section of our CSR/Environment site, which was overhauled in February 2011, contains a wealth of commentary from engineers, sales reps, foreign seafarers and other company members. We encourage you to take a look. (<http://www.mol.co.jp/csr-e/index.html>)

**Q3:** Please provide more specific information in the "Ensuring Safe Operation" section. I want to see a list of the kind of accidents that are anticipated and how they are addressed. (Male / 50s / customer)

**A3:** Thank you for your suggestions. Ensuring safe operation is an absolute imperative, and this year's report includes a two-page section that will be a permanent addition and another new page in the "Caring for Seafarers" section, in addition to the special report section, which has been a regular feature. We have worked to provide more specific information on our initiatives and the daily lives of seafarers while including illustrations and other data. We intend to continue trying various methods for successfully conveying our initiatives to people outside the company.



# Corporate Profile (As of March 31, 2011)

<b>Name:</b>	Mitsui O.S.K. Lines, Ltd.	<b>Number of Group companies:</b>	380 (The parent company and consolidated subsidiaries)
<b>President:</b>	Koichi Muto	<b>Group fleet:</b>	917 vessels, 65,920 thousand DWT
<b>Shareholders' equity:</b>	¥660.7 billion	<b>Head Office:</b>	1-1 Toranomon 2-chome, Minato-ku, Tokyo 105-8688, Japan
<b>Number of shares issued:</b>	1,206,286,115	<b>Branches and offices in Japan:</b>	Nagoya, Kansai (Osaka), Kyushu (Fukuoka), Hiroshima
<b>Number of shareholders:</b>	111,465	<b>URL:</b>	<a href="http://www.mol.co.jp">http://www.mol.co.jp</a>
<b>Share listings:</b>	Tokyo, Osaka, Nagoya and Fukuoka stock exchanges		
<b>Business:</b>	Multi-modal transport mainly by ocean-going vessels		
<b>Number of MOL Group employees:</b>	9,438 (The parent company and consolidated subsidiaries)		

## Consolidated Subsidiaries in Japan (62 companies)\*

### 1. Bulkships (5)

MOL LNG Transport Co., Ltd., Mitsui O.S.K. Kinkai, Ltd., Chugoku Shipping Agencies Ltd., Tokyo Marine Co., Ltd., Nissan Motor Car Carrier Co., Ltd.

### 2. Containerships (8)

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

### 3. Ferry and Domestic Transport (15):

Kansai Kisen Kaisha, MOL Ferry Co., Ltd., The Diamond Ferry Co., Ltd., Diamond Line K.K., MOL Naikou, Ltd., Blue Sea Network Co., Ltd., Blue Highway Express Kyushu Co., Ltd., Blue Highway Service K.K., Ferry Sunflower Limited, Kanki Unyu Co., Ltd., Kanki Express Co., Ltd., Bantan Renraku Kisen Co., Ltd., Beppu Port Service Co., Ltd., Meigan Kaikyou Ferry Co., Ltd., Sunflower Marine Service

### 4. Associated Businesses (23)

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

### 5. Others (11)

MOL Adjustment, Ltd., MOL Cableship Ltd., MOL Ship Tech Inc., MOL Ship Management Co., Ltd., MOL Marine Consulting, Ltd., MOL Accounting Co., Ltd., MOL Engineering Co., Ltd., Orange P.R. Ltd., MOL Ocean Expert Co., Ltd., MOL Information Systems, Ltd., Mitsui Kinkai Kisen Co., Ltd.

\* As of June 30, 2011

## Overseas Network (39 nations and regions)

### Europe

U.K., Germany, Italy, Austria,  
The Netherlands, Belgium, France,  
Sweden, Denmark, Finland, Poland

### Asia

China, South Korea, Taiwan, The Philippines, Vietnam,  
Cambodia, Thailand, Singapore, Malaysia, Indonesia,  
India, Pakistan, Sri Lanka

### Middle East

Lebanon, U.A.E., Qatar, Oman

### North America

USA

### Central and South America

Mexico, Panama,  
Brazil, Chile

### Africa

Ghana, Nigeria, South Africa, Cote d'Ivoire

### Oceania

Australia, New Zealand

