

# IINO Report 2010

## CSR & Annual Report

2009.4 ▶ 2010.3

Detailed CSR Reporting

### Contents

Scope of Report and Reference Guidelines 1

#### Operating Review

Action Charter 2

Risk Management 3

#### Safety and Environmental Report

Safety and Environmental Measures  
in the Shipping Business 6

Real Estate Business's Commitment  
to Safety and the Environment 15

Head Office's Safety and  
Environmental Measures 18

Safety and Environmental Management 20

Safety and Environmental Accounting 28

#### Social Report

Engaging our Shipboard Workforce 34

Onshore Workforce Initiatives 35

Index to Standard Disclosures 37

Glossary 40

## Scope of Report and Reference Guidelines

### Scope of Report

- Items Reported:** Comprehensive reporting of the Iino Group's sustainability initiatives. Systematic reporting of activities and performance in four categories: operations, finance, safety and the environment, and social issues. Content related to finance appears in the Iino Report 2010.
- Reporting Period:** Fiscal 2009, i.e., the fiscal year from April 1, 2009 through March 31, 2010 (Iino Lines' 119th fiscal term). Information corresponding to dates falling after the reporting period is also included as necessary.
- Organizational Scope of Report:** The report covers all of Iino Lines' consolidated group companies.

As of the end of March 2010

	Shipping Business	Real Estate Business	Head office administration													
Scope of safety / environment accounting	<b>Iino Kaiun Kaisha, Ltd.</b> <b>Shipping Division</b> Ship management services <b>Iino Marine Service Co., Ltd.</b> Flag-of-convenience companies 24 companies Shipping companies <b>Iino Shipping Asia Pte. Ltd.</b> <b>Iino Gas Transport Co., Ltd.</b>	<b>Real Estate Division</b> Building management <b>Iino Building Technology Co., Ltd.</b>	<b>Administrative Division, Head Office</b> System development and management <b>Iino System Co., Ltd.</b>													
	Ship-manning agencies <b>Pobar Marine Services, Inc.</b> <b>Iino Marine Korea Co., Ltd.</b> Overseas subsidiaries 3 companies <b>Iino Singapore Pte. Ltd.</b> etc. Shipping companies 2 companies <b>Allied Chemical Carriers, LLC</b> etc. Shipping-related business 6 companies <b>Iino Enterprise Co., Ltd.</b> <b>Godo Marine Industry Co., Ltd.</b> etc. Other flag-of-convenience companies 14 companies	Real estate-related businesses <b>Tokyo Sakurada Building Co., Ltd.</b> <b>Iino Mediapro Co., Ltd.</b> <b>Taiho Marine Co., Ltd.</b>	Research company <b>Iino Research and Persona Co., Ltd.</b> Functional companies <b>Iino Management Data Processing Co., Ltd.</b> <b>Iino Business Service Co., Ltd.</b>													
	<ul style="list-style-type: none"> <li>Changes in the number of Group companies in fiscal 2009 and number at year-end:               <table border="0"> <tr> <td>Consolidated subsidiaries:</td> <td>Net -2 (+1, -3)</td> <td>→</td> <td>45 companies</td> <td rowspan="3">} 62 affiliated companies in total</td> </tr> <tr> <td>Equity-method affiliates:</td> <td>No change</td> <td>→</td> <td>4 companies</td> </tr> <tr> <td>Non-consolidated subsidiaries:</td> <td>No change</td> <td>→</td> <td>13 companies</td> </tr> </table> </li> <li>In the aim of improving the relevance of reporting, Iino Lines will make continuous improvements on issues identified by issuing reports and communicating with stakeholders. Improvements will include expanding safety and environmental accounting's scope and thoroughness and accuracy of data collection.</li> <li>For Iino Gas Transport, only figures for the Navigation Division are included in safety and environmental accounting.</li> </ul>			Consolidated subsidiaries:	Net -2 (+1, -3)	→	45 companies	} 62 affiliated companies in total	Equity-method affiliates:	No change	→	4 companies	Non-consolidated subsidiaries:	No change	→	13 companies
Consolidated subsidiaries:	Net -2 (+1, -3)	→	45 companies	} 62 affiliated companies in total												
Equity-method affiliates:	No change	→	4 companies													
Non-consolidated subsidiaries:	No change	→	13 companies													
	<p><b>Legend</b></p> <ul style="list-style-type: none"> <li>Consolidated subsidiaries</li> <li>Non-consolidated affiliates</li> </ul>															

### Guidelines Referenced

- Reporting:** Sustainability Reporting Guidelines, ver. 3 (2006), Global Reporting Initiative  
 Environmental Reporting Guidelines (2007), Ministry of the Environment
- Accounting:** Environmental Accounting Guidelines 2005, Ministry of the Environment  
 Workbook for Environmental Accounting Method, Ministry of Economy, Trade and Industry  
 Environmental Accounting Guidelines for Construction Industry, 2002 ed., co-authored by three major construction industry associations\*
- Indexes:** Guidelines for Method of Calculating Emissions of Greenhouse Gas from Businesses, Draft Policy ver. 1.6, Ministry of the Environment

\* Japan Federation of Construction Contractors, Japan Civil Engineering Contractors' Association, and Building Contractors' Society

# Action Charter

## Action Charter

IINO Lines' Action Charter defines the specific measures to be taken to realize our management philosophy. IINO Lines, the IINO Group, and its company officers and employees are bound to abide by this charter in all of the enterprise's activities.

### 1. Contribute to society and improve our corporate value

- In carrying out the objectives of the shipping, real estate, and other group businesses, we will contribute to society by consistently providing high-quality services at fair prices and engaging in fair, transparent and free competition.
- Enterprises are established to make profits. It is therefore incumbent on us to improve our medium- and long-term performance to raise corporate value. However, we must not raise corporate value in a manner that is detrimental to society's interests. Further, we must actively contribute to society. We must always put society and humankind before the interests of the company.

### 2. Observe the law and maintain social order

- In this Action Charter, "compliance" means both "observance of the law" and "maintenance of internal systems to ensure observance of the law."
- We practice compliance in carrying out our business operations and give due consideration to the social norms and ethical codes that legislation and regulations are intended to preserve.
- In carrying out business operations, we will observe domestic legislation relating to commercial, antitrust, and securities exchange laws, international rules relating to marine vessels, and the laws and regulations of those countries and regions in which we have business operations.
- If an officer or an employee obtains information that is disadvantageous or potentially disadvantageous to our company, he/she must report it to the Stakeholder Relations Management & Research Group as soon as possible.
- We will never be involved or engage with any anti-social organization (e.g., organized crime) or any group that jeopardizes social order and safety.

### 3. Eradicate discrimination and respect human rights

- We do not discriminate in employment, transactions, or any other area on the basis of nationality, race, religion, age, or gender, or for any other unjust reason.
- We respect human rights in the workplace so as to maintain an environment in which employees can work comfortably.

### 4. Put priority on safety

- Accidents that happen on marine vessels or in office buildings used in our business operations have a high risk of causing fatal injury, damage to customer assets, and/or environmental pollution. We must therefore put priority on safety in our business operations.

### 5. Protect the environment

- To reduce the environmental impact of our business operations, we will observe all appropriate domestic and international laws and rules that are intended to preserve the ocean environment, atmospheric environment, harbor environments, local community environments around our buildings, and soil environments.

### 6. Demonstrate respect for customers

- In this Action Charter, "customer" means any general business partner who receives consideration from or pays consideration to us.
- We must not discriminate between customers based on whether the customer receives or pays consideration or on the size of the customer company. We must deal equally with every customer in a sincere, kind and polite manner. Moreover, we will take prompt and appropriate action to meet customer needs and improve customer satisfaction.
- Long-lasting trust relationships with customers are an invaluable source of prosperity to our company. When interacting with customers, every company officer and employee must consistently demonstrate an awareness that he/she is building a trust relationship as a representative of our company.

### 7. Carry out required information disclosures and communicate fully

- We will strive to communicate adequately in a manner that will ensure the understanding of and that demonstrates due consideration for the interests of every stakeholder, including stockholders, customers, employees, local residents, and citizen groups.
- We will disclose appropriately and without delay information about our company, including information that is disadvantageous to our company.
- We will not disclose information about any individual customer or private information of any corporation or individual.



# Risk Management

## Promotion of Risk Management

### • Risk Management Policy

Being aware that safety is the foundation of our business operations, our Group is fully committed to risk management, considering it an important management issue. With risks to corporate activities increasingly diversified and complicated, we believe that carrying out appropriate risk management is one of our corporate responsibilities.

Safety-oriented business practices protect lives, customer assets, and the environment. We believe that even if we are forced to suspend an operation for a risk factor, restoring operations to normal as quickly as possible is essential to meeting our social responsibility to all stakeholders, including customers and business partners.

### • Iino Group's business risk categories and approach to dealing with each risk

The Iino Group classifies and organizes major risks facing the entire group's business as shown in the table below. The Group studies and implements specific

countermeasures, starting with matters of high importance, primarily for hazards and operational risks.

	Risk	Description	Prevention and response guidelines
Hazards	<b>Maritime accidents and navigation problems</b>	Risks associated with the shipping business. Risks that life, cargoes, vessels, and the environment may be damaged due to maritime accidents (oil spills, collisions, groundings, fires, engine problems, life-threatening injuries and diseases, deaths, and missing persons). Risks that normal vessel navigation may become impossible due to factors other than maritime accidents, such as unavailability of crew, fuel oil, lubricants, or vessel equipment and articles.	Ensure proper prevention and response through establishment and rigorous enforcement of the Basic Provisions on Risk Management and Iino Marine Service's Maritime Accident Handling Rules.
	<b>Building accidents</b>	Risks associated with real estate leasing. Risks that life, tenants' assets, or facilities/functions of buildings may be damaged due to such factors as natural disasters or facility failure.	Ensure proper prevention and response through establishment and rigorous enforcement of the Basic Provisions on Risk Management and the Iino Building Technology Risk Management Plan.
	<b>Information systems risks</b>	Information system accidents due to disasters or internal/external human factors. Three types of risks associated with information systems, namely, system failure risk, data loss risk, and outbound data leakage risk.	Ensure proper prevention and response through establishment and rigorous enforcement of the Basic Provisions on Risk Management and Iino Systems' Information Systems Risk Management Plan.
	<b>Natural disaster risks and accident risks</b>	Risks that the Iino Group may experience loss or injuries to personnel, material damage, or organizational paralysis due to disasters or accidents, including earthquakes, tsunamis, volcanic eruptions, typhoons, fires, explosions, and infectious diseases.	Discuss and establish a business continuity plan (BCP) based on the Basic Provisions on Risk Management.
Operational risks	<b>Legal (compliance) risks*</b>	Risks that the company, officers, or employees may be sued or prosecuted for violation of laws or social norms. Antitrust law-related risks, insider trading risks, sexual or power harassment risks, directors and officers liability risks, labor condition-related risks, and other litigation risks.	According to our Compliance Provisions, the Legal Affairs Division will lead efforts to raise the legal awareness of all officers and employees and implement preventive measures against legal risks.
	<b>Administrative risks</b>	Risks of administrative errors or misconduct resulting in inappropriate documentation that may lead to deteriorated relationships with customers and other stakeholders or to false financial reporting.	Establish standard work procedures. Establish and properly maintain internal control over financial reporting.
	<b>Communication risks</b>	Risks that our credibility and reputation may be compromised due to inappropriate methods, content, or timing of information disclosure and communication to internal and external stakeholders. Such risks include the risk associated with rumors.	The IR Office will lead efforts to institute appropriate prevention and response measures by establishing and updating the Basic Provisions on Risk Management and risk management manuals.
	<b>Personnel risks</b>	Risks of unavailability of a sufficient number of qualified personnel (shipboard and onshore staff) required for efficient business operation.	The Crew Staffing and Personnel Divisions lead efforts to implement appropriate measures.
	<b>Financial Risks</b>	Risks due to fluctuations in exchange rates, interest rates, or stock prices, and financial risks in general, including bad debts caused by the failure of business partners.	The Financial Division will lead efforts to implement appropriate measures.
	<b>Management strategic risks</b>	Risks related to decisions and judgments on all management strategies, such as building of new vessels, construction of new buildings, expansion into new businesses, and establishment of new business bases. Such risks include the economic risks of fluctuations in the shipping and real estate markets or price hikes for fuel oil; regulatory risks due to enforcement, revision or abolishment of domestic and foreign public regulations; and local political, economic, and social risks associated with overseas business activities.	We will strive to optimize corporate strategies to minimize these risks and maximize returns.

\*Our rules on the exercise of rights by single-unit shareholders (right of demand for convocation of the board of directors, etc.) and the rights of minority shareholders (shareholder proposal right, shareholder right to inspect books and records, etc.) are based on the Companies Act and other applicable laws and regulations.

## Countermeasures against hazards

We maintain a business continuity plan as a precaution against unexpected hazard-related events due to accident or disaster. The plan helps to prevent crises and enables us to minimize losses and quickly restore business to normal if a crisis does occur. Our crisis control framework distinguishes between

procedures for normal times and emergencies (see pages 4–5 for details). When emergencies occur, depending on severity, we set up an Emergency Response Headquarters for the entire Group to take appropriate action. The entire Iino Group works as one during normal times and emergencies to manage risks.

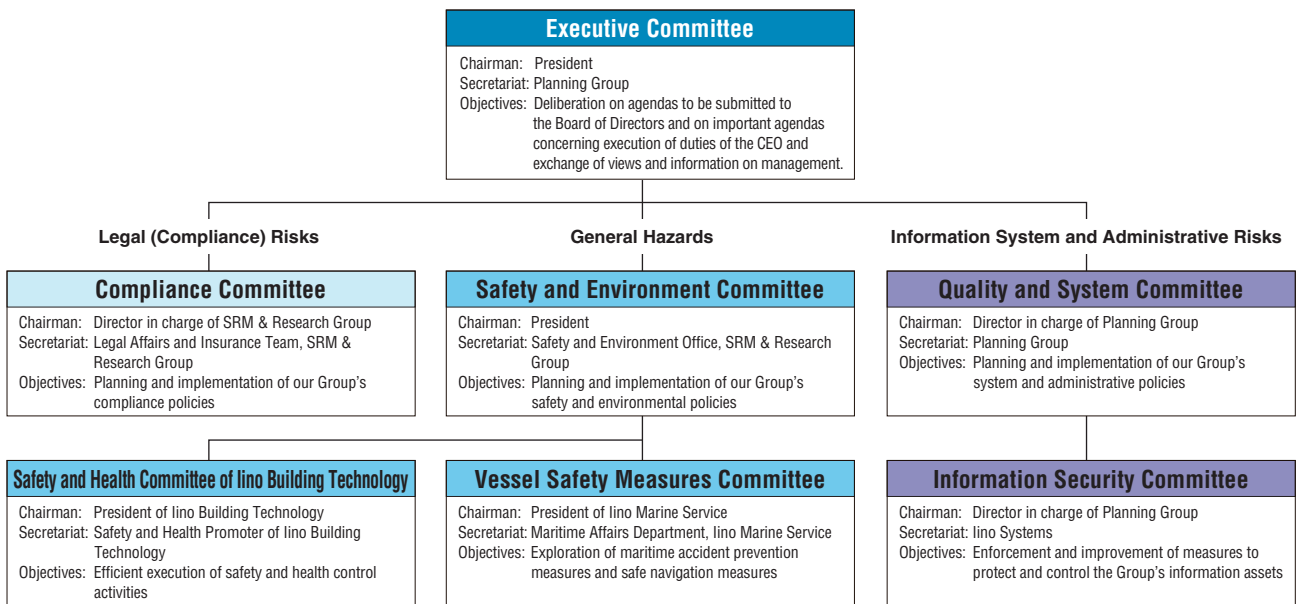
# Risk Management

## Iino Group's Risk Management System for Normal Times

### • Risk Management System

The Iino Group employs a three-committee system to ensure good corporate governance. This system also serves as the risk management system for normal times. The Compliance Committee handles legal (compliance) risks, the Quality and System Committee handles risks associated with information systems and administration, and the Safety and Environment Committee handles general

hazard risks. All three committees plan and implement effective risk management policies. Iino Lines steers the committees, which include the presidents of relevant affiliated companies, to ensure rigorous group-wide management of all relevant risks. Subordinate committees also have been set up at relevant key affiliates.

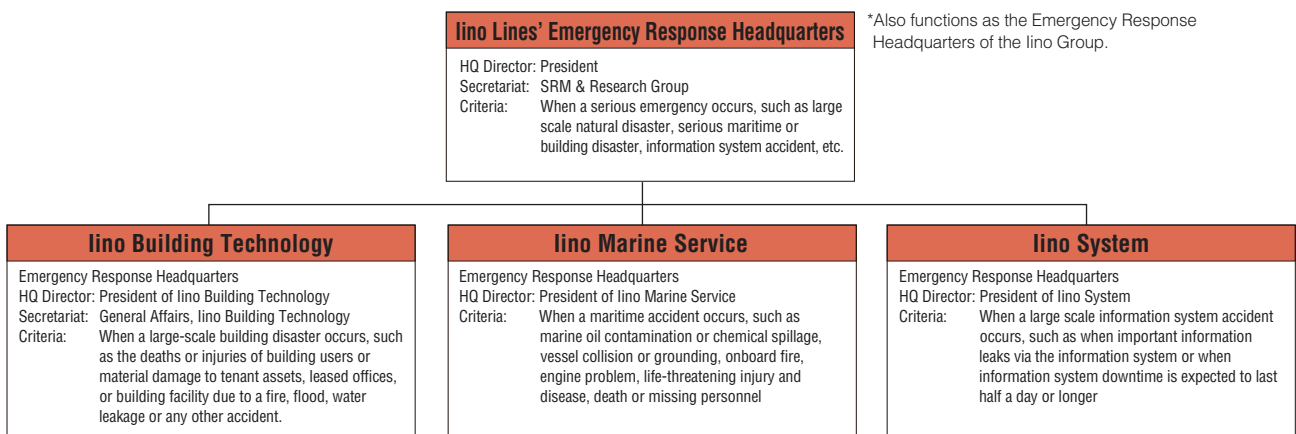


## Iino Group's Crisis Management System for Emergencies

### • Crisis Management System

In emergencies, Iino Lines and its main affiliates set up Emergency Response Headquarters. Company presidents serve as HQ directors. This facilitates swift, appropriate emergency responses to minimize damage and ensure early resumption of operations.

Rather than functioning independently, these Emergency Response Headquarters cooperate across the Iino Group. Headquarters are headed by the president of each company or by their deputies in their absence.

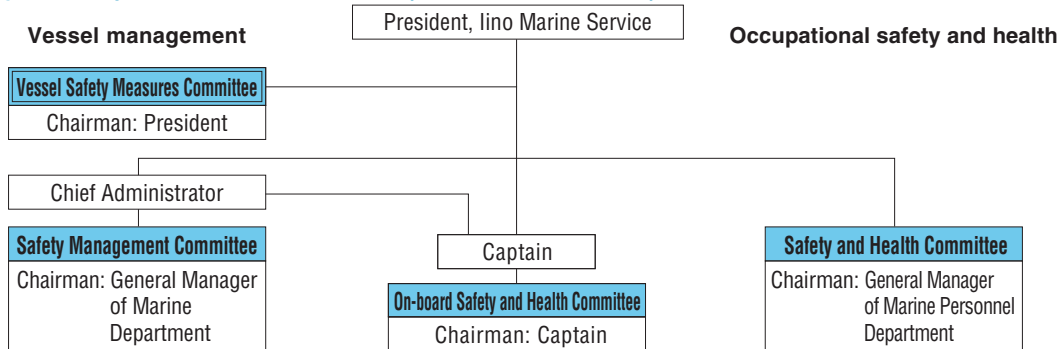


\*The HQ directors can set up or disband their respective headquarters at their discretion, regardless of the above criteria.

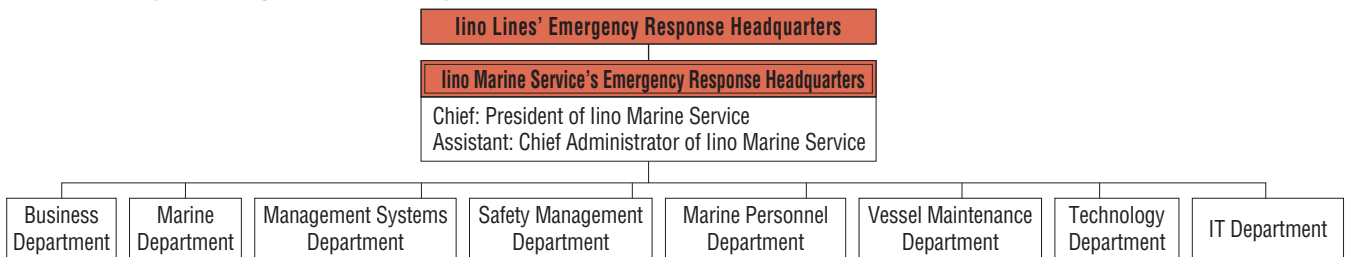
# Risk Management

## Safety Management System in the Shipping Business

### • Risk Management System for Normal Times (Iino Marine Service)



### • Crisis Management System for Emergencies

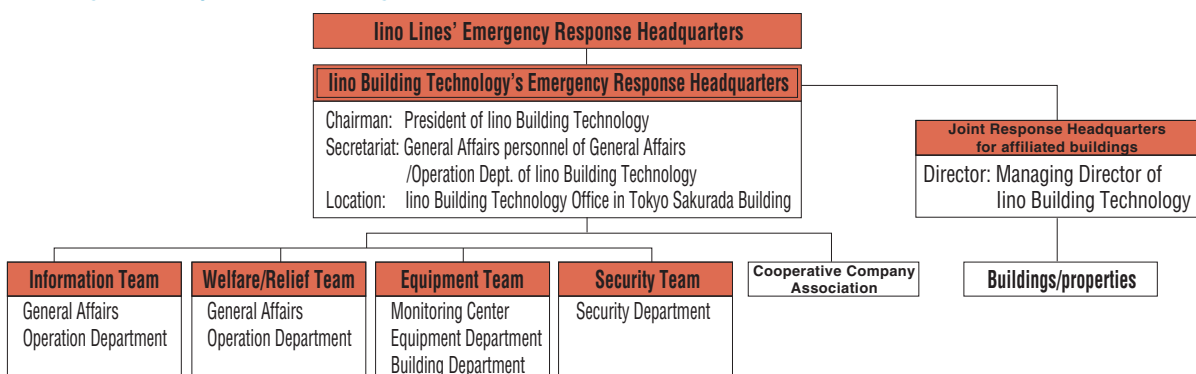


## Safety Management System in the Real Estate Business

### • Risk Management System for Normal Times



### • Crisis Management System for Emergencies



\*In addition, volunteer fire-fighting units (Volunteer Fire-fighting teams and Volunteer Fire-fighting Headquarters) are set up for our core buildings, and Group employees are assigned various duties in emergencies.

## Safety and Environmental Measures in the Shipping Business

### Safety and Environmental Protection Initiatives

Iino Marine Service (IMS) is the Iino Group's ship management subsidiary. It operates in line with the Iino Lines management philosophy that safety is the foundation of our business operations and conducts all our operations with a keen awareness that maintaining safety is our most important responsibility.

IMS currently manages a diverse fleet of some 50 ships, comprising mainly chemical tankers and also including oil tankers, product tankers, LNG tankers, LPG tankers, bulk carriers, and woodchip carriers. Tankers account for over 80% of our managed fleet and require sophisticated ship management capabilities.

Accordingly, we have obtained certification for our safety management system (ISM Code) and for our environmental and quality management systems (ISO). We must also conduct self assessments in accord with TMSA (Tanker Management Self Assessment) requirements and meet the inspection standards of major oil companies and other shippers. Tankers themselves must pass various inspections, including Major Oil Inspections (conducted by major oil companies) and CDI inspections (conducted by the Chemical Distribution Institute founded by chemical companies), and comply with certain hard and soft standards. Failure to do so could inhibit our ability to actually operate vessels. Safety standards are becoming more stringent all the time, as indicated by such recent developments as the trend toward adopting the RightShip vetting system for bulk carriers.

In this environment, the Iino Group's onshore and shipboard personnel are working in concert to ensure that we meet these mandatory standards by further strengthening our unwavering commitment to safety, the foundation of all Iino Group activities, and environmental protection.

A vital part of this effort is the ongoing education and training of our 1,500-strong, shipboard workforce representing four nations: Japan, South Korea, the Philippines, and Myanmar. Our crew manning agents (firms that specialize in hiring and training crews) in each country conduct in-house training programs. Additionally, captains and other senior officers of all four nationalities attend pre-boarding training sessions at our Tokyo headquarters, and our instructors visit each country twice a year to conduct safety seminars and emergency preparedness drills.

We also dispatch marine and engineering superintendents to ships twice a year in principle and arrange visits by South Korean, European, and US shipboard superintendents to conduct regular on-the-job training, ship

inspections, and navigation audits. Through these activities, we ascertain our vessels' maintenance and operating status and raise awareness of ship safety, crew safety, and environmental protection. Finally, we foster a common mindset among shipboard and onshore personnel by, for example, deploying South Korean and Filipino shipboard superintendents as onshore staff where needed.

The Iino Group also sets safety, environmental, quality, and other management targets and monitors progress toward their attainment using the PDCA cycle. We intend to uphold our commitment to safety and environmental protection and enhance our already excellent quality management practices. Our onshore and shipboard personnel will work in unison to achieve this, the ultimate goal being to further expand our presence as a member of international society.



**Shigeru Nemoto**  
Director and Managing Executive Officer, Iino Lines  
President and CEO, Iino Marine Service

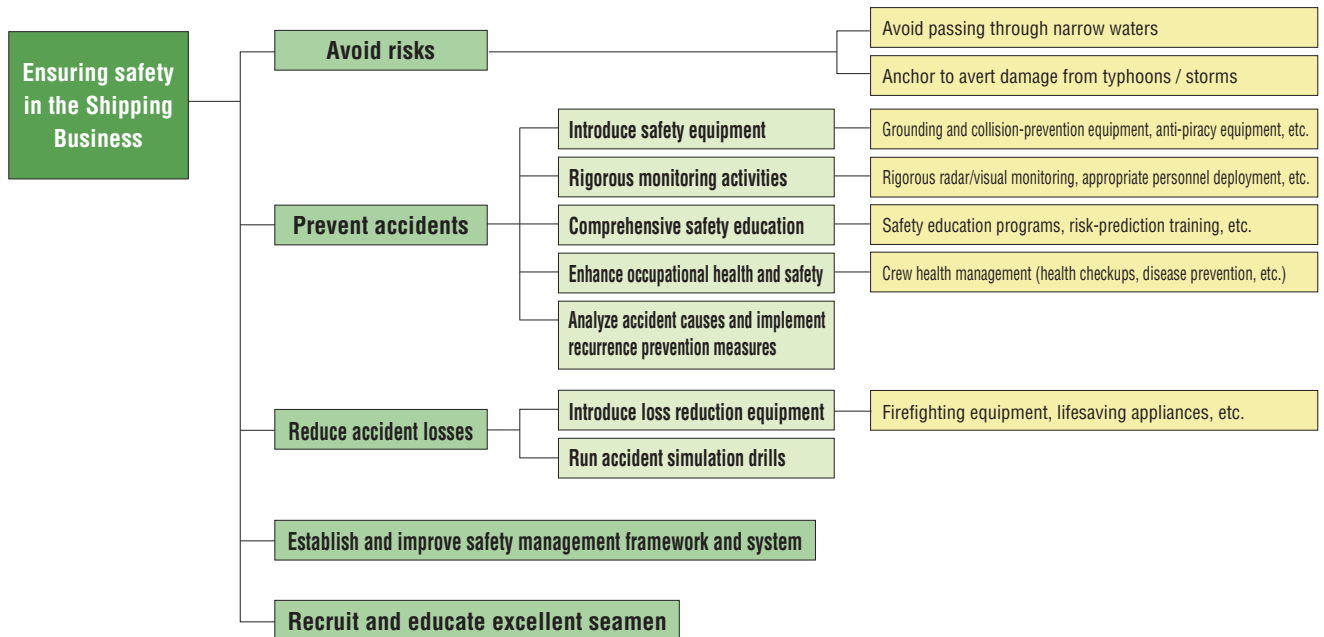
# Safety and Environmental Measures in the Shipping Business

## Navigational and Operational Safety Initiatives

The Iino Group is committed to safe vessel operations and preventing accidents. The Group works in unison to ensure safety by holistically enhancing all aspects of operations, including technologies, systems, frameworks, and

education and training programs. We also comply with various international regulations designed to promote navigational and operational safety and strive to properly meet requirements.

### • Overview of Major Policies concerning Safety



### • Major Regulations concerning Safety

<b>SOLAS</b>	Primary and comprehensive international agreement on maritime security measures / International Convention for the Safety of Life at Sea / Stipulates rules mainly on vessel structures and equipment
<b>ISM Code</b>	International Safety Management code defined in SOLAS
<b>ISPS Code</b>	International Ship and Port Facility Security (ISPS) code, based on SOLAS, which came into effect in July 2004
<b>STCW</b>	International convention on Standards of Training, Certification, and Watchkeeping
<b>COLREG</b>	Convention on the International Regulations for Preventing Collisions at Sea



## Safety and Environmental Measures in the Shipping Business

### Activities for Ensuring Navigational and Operational Safety

#### • Recruiting high-caliber crew

Iino Marine Service (IMS) maintains close ties with higher educational institutions in Japan and overseas and supports the education of young aspiring seamen through internship and scholarship programs. It also recruits high-caliber crewmembers.

In Japan, IMS partners with Tokyo University of Marine Service and Technology (established by the 2003 consolidation of Tokyo University of Mercantile Marine and Tokyo University of Fisheries) and Kobe University's Faculty of Maritime Sciences (established in 2003, when Kobe University of Mercantile Marine was consolidated into Kobe University). IMS offers internships to students as part of their college education. In fiscal 2009, IMS accepted four interns from these two universities and one from the National Fisheries University in Shimonoseki, Yamaguchi Prefecture, another partner school.

Overseas, IMS is deepening cross-cultural ties with educational institutions in South Korea, the Philippines, and Myanmar.

IMS is helping to educate South Korean seamen by providing Mokpo National Maritime University (MNMU) students with practical onboard training as required coursework. In fiscal 2009, IMS provided training to 16 students from MNMU. It also provides scholarships. In fiscal 2009, it awarded scholarships to four students from Busan Maritime High School.

In the Philippines, IMS has scholarship programs for students at Visayan Global College, University of Cebu, and the Maritime Academy of Asia and the Pacific (MAAP). In fiscal 2009, it awarded scholarships to eight students from these institutions.

In Myanmar, IMS provides both internships and scholarships to Myanmar Maritime University (MMU) students. In fiscal 2009, IMS provided internships to six MMU students.

#### • Accident case study and recurrence prevention measures

With the marine shipping industry in recession, an increasing number of vessels are laying up (i.e., dropping anchor and sitting idle) outside of ports for extended periods. Many vessels have anchored offshore Singapore in particular, creating marine traffic hazards that have recently resulted in collisions and other marine accidents. Following is a report of a recent accident and the recurrence prevention measures implemented in response.

**Date: January 27, 2010**

**Location: Vicinity of Johor, Malaysia**

**Vessel: Pacific Bravery oil tanker**

**Circumstances of accident:**

While anchored offshore the Port of Johor at the eastern mouth of the Singapore Strait on January 27, awaiting its next scheduled cargo pickup, the Pacific Bravery was struck on its starboard side by a barge that was swept by wind and currents as it was being towed by a tugboat attempting to pass in front of the Pacific Bravery's bow. The collision damaged the Pacific Bravery's exterior hull panel. Because the point of impact was a ballast tank, the collision did not cause any crew injuries or oil leakage.

**Post-accident response:**

Immediately after the accident, the crew inspected the Pacific Bravery's cargo tanks, verified that no flammable gases were present in the tanks, and headed to a repair yard in Singapore. The damage to the exterior panel was an indentation only, with no breach of the hull's skin. The damaged panel was removed and replaced with a new one.

**Recurrence prevention measures:**

We formed an accident investigation committee, which investigated the accident. The committee issued a recommendation for our ships to intensify continuous radar monitoring of nearby vessel traffic, even when anchored, to maintain constant awareness of approaching vessels' heading and distance and warn oncoming vessels that are potentially on a collision course. We disseminated instructions to follow the committee's recommendation throughout our fleet. We also instructed ship captains to avoid anchoring in the vicinity of heavily trafficked shipping lanes



The Pacific Bravery's starboard hull after removal of damaged panel

## Safety and Environmental Measures in the Shipping Business

### • Vessel visits and inspections

#### Major Oil Inspections

Oil tankers, chemical tankers, and LPG tankers must undergo and pass vessel inspections conducted by the major oil companies before they engage in transport operations for those companies. These vessel inspections focus on both hard and soft aspects of safety and are also used as indicators of vessel safety. Each vessel under our management is inspected 3–4 times a year.

#### Performance in major oil company inspections (no. vessels)

Year	2005	2006	2007	2008	2009
Vessels inspected	91	96	175	123	149

#### CDI Inspections

Our chemical tankers are also subjected to vessel inspections conducted by the CDI (Chemical Distribution Institute), which was established by members of the chemical products industry in 1994.

#### CDI Inspection performance (no. vessels)

Year	2005	2006	2007	2008	2009
Vessels inspected	14	21	31	32	30

#### Iino Vessel Inspection System

In addition to internal audits, the Iino Group adopted its own vessel inspection system for all vessels under management in an effort to improve its safety management level. In principle, Iino Vessel Inspections are conducted for oil tanker and LPG tanker fleets once every half a year and once a year for bulk carriers.

#### Performance in Iino Vessel Inspections (no. vessels)

Year	2005	2006	2007	2008	2009
Vessels inspected	50	32	33	41	45

#### Superintendent Safety Inspections

The Iino Group dispatches safety superintendents to oil and LPG tankers and bulk carriers when they are in Japan for cargo-handling operations. The superintendents check the condition of vessel hulls and cargo handling equipment and provide instructions and advice on-site to ensure that unloading work is conducted with sufficient consideration to safety and the environment.

#### Superintendent safety inspections (no. vessels / days)

Year	2005	2006	2007	2008	2009
Total no. vessels	206	193	269	269	224
Total no. days	651	620	866	920	773

### • Kanmon and Kurushima Straits Transit Restrictions

The Kanmon and Kurushima Straits are marine traffic chokepoints with a higher incidence of accidents than any other straits in Japanese territorial waters. We have restricted our vessels' freedom to transit the Kanmon and Kurushima Straits after one of our chemical tankers was involved in a collision in the Kurushima Strait.

As a general rule, our vessels may transit the two straits only during daylight hours, only if they have a pilot on board and have established an accident reporting system, and only after they have reported to and received transit permission from our Safety Department. Our oil and chemical tankers are subject to stricter restrictions in the Kurushima Strait than in the Kanmon Strait. Such tankers are granted permission to transit the Kurushima Strait only when their cargo tanks are empty and visibility is at least one nautical mile.

Our business units inform charterers in advance of these in-house restrictions.

Map of the western part of the Seto Inland Sea, and the positions of the Kanmon and Kurushima Straits in Japan



**Kanmon Straits**  
(Photograph courtesy of the Kanmon Straits Tourism Association)



**Kurushima Straits**  
(Photograph courtesy of the Imabari City Office Tourism Section)

### • Ban on use of supplies replenishment service in the Singapore Strait

Specialty merchants offer a "rendezvous service" to replenish the supplies of ships at sea. These merchants load small boats with food, ship parts, and other supplies and pull up alongside moving vessels to sell their wares. Ships slow down to rendezvous with these merchant boats and transfer the purchased supplies on board. Such rendezvous are consequently dangerous and can cause major accidents, such as collisions with other ships.

Out of concern for safety, we have in principle prohibited our ships from using rendezvous services since 2000, particularly in the heavily congested Singapore Strait.

## Safety and Environmental Measures in the Shipping Business

### Equipment and Measures for Safe Navigation and Ship Operations

#### • Equipment and instruments for safe navigation and ship operations

Our vessels are equipped with an extensive array of equipment and instruments for ensuring safety (see table below). We are obligated to install most of the equipment and instruments by SOLAS (International Convention for the Safety of Life at Sea), MARPOL (International Convention for the Prevention of Pollution from Ships), and other such bodies of rules and regulations.

To further enhance safety, we also equip our vessels with the following equipment and instruments, which are not required by rules.

#### ECDIS (Electronic Chart Display and Information System)

ECDISs can show digitized nautical charts, radar output, vessel positions, headings, and speeds, and other information on a single display and offer excellent usability. They efficiently support navigation by allowing users to easily view the latest sea-road and minesweeping information.

#### Oil mist detectors

Fuel oil and lubricant oil flow under high pressure in vessel engine rooms. If pipes or other equipment are damaged, the oil can be expelled as a mist, causing a fire or explosion. An oil mist detector monitors a room's oil-mist concentration. If it exceeds a set threshold, an alarm activates to prevent accidents.

#### Mandated safety equipment and instruments

Category	Main equipment and instruments
Seaworthiness	Main engine, generator, boiler, and pumps in the engine room and the vessel hull.
Safe navigation to destination	Navigational instruments (gyrocompass, radar, etc.), communication equipment, steering systems
Mooring gear	Anchors and anchoring equipment. Mooring equipment, e.g., mooring winches, mooring lines
Cargo handling equipment	Cargo handling equipment to ensure safe loading and unloading of cargo
Emergency response	First-aid equipment, firefighting gear, alarm systems.
Other safety equipment and instruments	Anti-piracy and anti-terrorist attack equipment, towing equipment. Voyage Data Recorder (VDR)

### Anti-piracy Measures for Safe Navigation

Incidents of marine piracy have been increasing since 2006 and jumped 39% in 2009 versus 2008. Hostage incidents were around 1.2 times more frequent by the same comparison. Piracy is growing more vicious also.

Geographically, Southeast Asia (e.g., Indonesia, Strait of Malacca) was the most piracy-prone region until 2006, but since 2007, Africa (e.g., Somalia, Red Sea / Gulf of Aden, Nigeria) has had the highest incidence of piracy. In 2008, piracy grew rampant in the Gulf of Aden and off the coast of Somalia and has recently been spreading from that area, reaching as far as the Indian Ocean. Several ships owned or affiliated with Japanese shipping lines have been hijacked or attacked by armed pirates in the Gulf of Aden or off the coast of Somalia. Once aboard a vessel, armed pirates pose an intractable threat, so a key anti-piracy measure is to prevent pirates from boarding at all costs. We have stationed external-specialist security teams aboard our ships and increased the positional data receipt frequency of our ship tracking systems, which utilize the Inmarsat-C satellite communications system for ships, to bolster surveillance of our fleet. In accord with the International Ship and Port Facility Security (ISPS) Code, which took effect on July 1, 2004, we have equipped our fleet with ship security alert systems (SSAS) that transmit security alerts together with the ship's ID code, name, location, and the time.

We will continue upgrading our anti-piracy equipment also. To stop pirates from boarding, for example, we intend to equip our ships with laser tripwires, dedicated pumps for water cannons and sprinklers (e.g., for spraying hot water), and night-vision optics as standard.

\* For more information on countermeasures against piracy in the Gulf of Aden and off Somalia, see page 37 of the Iino Report 2010.

#### Number of piracy incidents by year and number of victims by type

	2005	2006	2007	2008	2009	
No. incidents	276	239	263	293	406	
No. victims	Hostages	440	188	292	889	1,052
	Kidnap victims	13	77	63	42	12
	Blackmail victims	14	17	6	9	14
	Battery victims	6	2	29	7	4
	Injury victims	24	15	35	32	68
	Homicide victims	0	15	5	11	8
	Missing persons	12	3	3	21	8
	Total	509	317	433	1,011	1,166

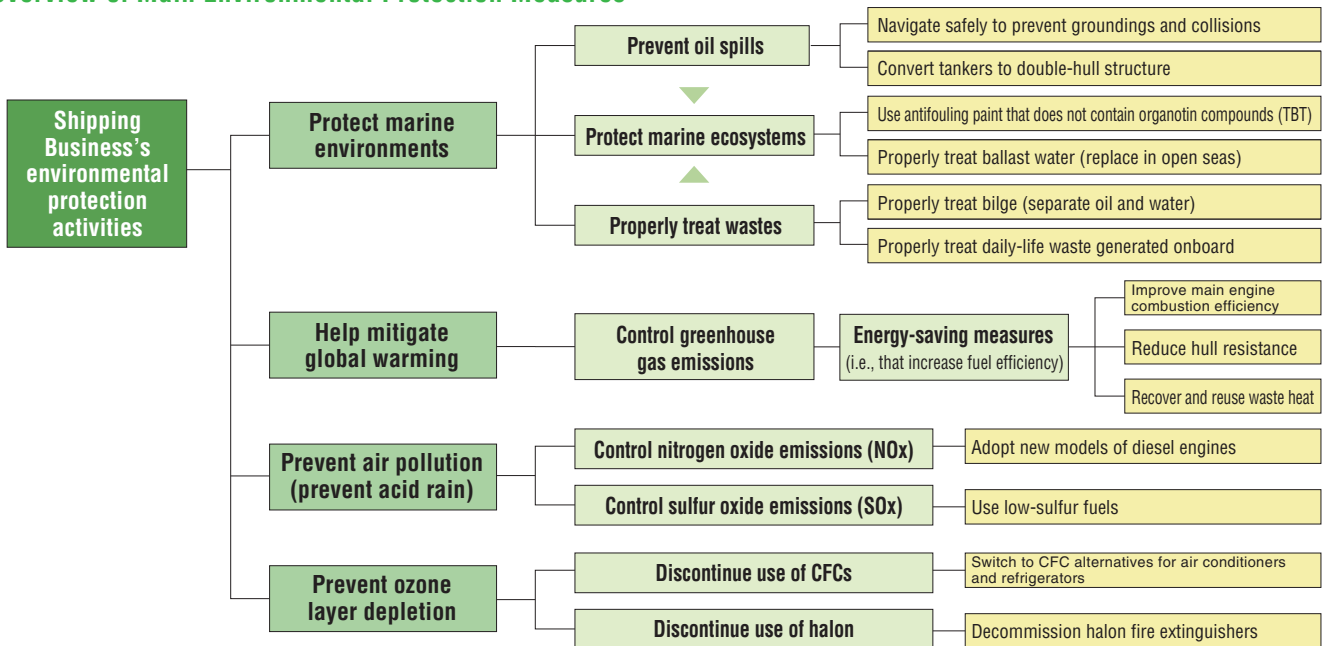
(Source: International Maritime Bureau (IMB) Report)

# Safety and Environmental Measures in the Shipping Business

The Iino Group is mindful of its shipping operations' effect on the global environment, complies with all relevant international regulations, and strives to mitigate its environmental impact.

## Environmental Protection Initiatives

### • Overview of Main Environmental Protection Measures



### • Main Environmental Protection Regulations

<b>MARPOL 73/78 Convention</b>	Primary and comprehensive international agreement on preventing marine environmental pollution from vessels. MARPOL Annexes I–VI contain articles regulating marine and air pollution with oils, wastes and emission gases.
<b>OPRC Convention</b>	International agreement on large oil-spill accidents relating to oil-pollution preparedness and responses and cooperation between parties
<b>The two oil spill treaties</b>	Treaties prescribing the responsibilities and compensation of ship owners and cargo owners with regard to damage caused by oil spills from oil tankers
<b>1992 CLC</b>	Agreement on oil-spill accidents prescribing ship owners' no-fault liability, total maximum liability, and compulsory insurance
<b>1992 FC</b>	Agreement on oil-spill accidents prescribing cargo owners' liability. Refers to the International Oil Pollution Compensation Funds donated to by cargo owners
<b>Bunkers Convention</b>	Treaty prescribing liability for and indemnification of damages from pollution caused by fuel oil spills (effective November 21, 2008)
<b>London Convention</b>	Officially named the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter. Treaty restricting dumping from ships, marine facilities, or airplanes into the ocean and incineration on the ocean of waste generated on land
<b>OSPAR Convention</b>	Agreement to protect the environment of the northeast Atlantic Ocean. Also called the Oslo and Paris Conventions.
<b>Ship Recycling Convention</b>	Convention aimed at ensuring that ships, when being recycled, do not pose unnecessary risks to human health and safety or the environment (slated to come into effect in 2012).

## Green Award earned in recognition of high-quality ship management practices

Iino Marine Service (IMS) is the only Japanese ship management company that has received Green Award certification from the Netherlands' Green Award Foundation, an advocate for vessel quality management worldwide.

The foundation is a public interest corporation established in 1994 by the Dutch Ministry of Transport and Water Management and the Rotterdam Municipal Port Authority. Its objective is to ensure the safety of vessels around the world and prevent marine pollution. The certificate is issued to ship management companies, and the vessels they manage, in recognition of high-quality ship management practices. Certified vessels are eligible for incentives such as preferential harbor charges at cooperating ports around the globe.

The Iino Group is currently unable to benefit from such incentives because its vessels lack opportunities to call at any of the cooperating ports. We nevertheless aim to practice safe, high-quality ship management and will continue to undergo Green Award surveys. The Ship Recycling Convention (slated to come into effect in 2012) will introduce safety and environmental regulations on ship recycling, one of the Green Award survey criteria. We are working with ClassNK, shipyard operators, and other entities toward meeting the convention's standards.



Green Award Certificate

## Safety and Environmental Measures in the Shipping Business

### Main Greenhouse Gas Reduction Measures

The operation of vessels causes emissions of CO<sub>2</sub> and other greenhouse gases due to heavy fuel oil combustion. We take the following measures to improve fuel efficiency and thereby reduce greenhouse gas emissions.

#### • Improving Main Engine Efficiency

##### Electronically controlled engines

We introduced electronically controlled fuel injectors into main engines starting with the very large crude carrier (VLCC) we built in 2006. The fuel injectors restrict smoke generation during low-load operation and improve fuel efficiency. According to experimental data, they reduce CO<sub>2</sub> emissions by about 0.8%, SO<sub>x</sub> by about 1.0%, and particulate matter by about 0.8%.

##### Fuel oil pretreatment systems

Heavy fuel oil for ships contains sludge, water, and catalysts added during the purification process and therefore needs to be pretreated. By pretreating to remove materials that hinder engine performance, we enhance fuel efficiency and reduce air-polluting substances.

##### Combustion improvers and modifiers

The effective use of combustion improvers and modifiers that improve fuel quality enhances fuel efficiency and restricts the generation and emission of oil waste, oil sludge (polluted sludge sediment), and black smoke that contains harmful substances.

##### Fuel treatment systems

Fuel treatment systems filter out impurities in non-conforming heavy fuel oil that adversely affect engine performance, completely removing retained sludge and residue. This improves fuel oil properties and restricts the generation and emission of black smoke.

##### Main engine performance analysis software

Main engine performance analysis software provides real-time data on propeller rotational speed, output, engine speed, and other operational parameters of the main engine. The data obtained facilitates economic operation and helps improve fuel efficiency and reduce greenhouse gas emissions.

#### • Reducing hull resistance

##### Turbo rings / PBCFs (Propeller Boss Cap Fins)

The rotation of ships' propellers vigorously swirls the water and generates vortices behind the propellers, which cause energy loss for vessels moving forward. Propeller efficiency, and thus fuel efficiency, can be improved by installing fins on the tip of the rear central axis of the propeller to rectify the vortex, reduce resistance, and convert the drag to forward energy.

##### Energy-saving fins / energy-saving ducts

Water flow at a vessel's stern can be controlled by attaching four or five radial fins (stabilizer-like), or circular or semicircular ducts (pipes), to the front and upper part of the propeller shaft. This boosts propeller efficiency and, in turn, fuel efficiency. Controlling water flow created by the propeller's action also helps to reduce vessel vibration.

##### Cleaning of ship bottoms and sides / grinding of ship propellers

We analyze ship performance to determine changes in fuel consumption due to the wearing or damage of ship hulls and propellers, and divers clean ship hulls and grind propellers at appropriate intervals. These efforts maintain and improve fuel efficiency.

#### • Waste heat recovery and reuse

##### Turbine generators

In turbine generator systems, high-temperature pressurized steam is used to drive turbines to generate power. Such generators do not produce greenhouse gases because they do not use fuels like heavy oil. Equipping a ship with an exhaust gas economizer allows the recovery and reuse of exhaust steam generated by the main engine for power generation.

#### • Other

##### Control units for lubricant oil supply to main engine cylinders

Lubricant oil supplied to the main engine burns with fuel oil and generates greenhouse gases such as CO<sub>2</sub>. By optimizing the supply of lubricant to the main engine to avoid wasting lubricant, we help to conserve natural resources and reduce greenhouse gas emissions.



## Safety and Environmental Measures in the Shipping Business

### Vessel Equipment for Marine Environment Protection

#### • Double-hulled tankers

Tankers today are required to have a double-hull construction, which prevents oil spills by reducing the risk of damage to interior cargo oil tanks in the unlikely event that the tanker's outer hull is breached by a collision or grounding.

In response to the Exxon Valdez oil spill that occurred off the Alaska coast in 1989, the International Maritime Organization's (IMO) Marine Environmental Protection Committee (MPEC) voted to amend the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) in March 1992. The amended convention required oil tankers complete in or after July 1993 to be double hulled and imposed deadlines for decommissioning of existing single-hulled tankers. In response to a subsequent series of oil spills involving single-hulled tankers, the timeline for scrapping existing single-hulled tankers was accelerated effective April 2005. With limited exceptions, single-hulled tankers of 5,000dwt and over must be decommissioned once they reach 25 years of age and use of single-hull tankers is to be banned entirely from 2015.

We commissioned our first double-hulled tanker in 1982 and subsequently continued to proactively upgrade our tanker fleet to double-hulled vessels. Since October 2002, our fleet of oil tankers (both crude oil and product tankers) and chemical tankers has been 100% double hulled.

#### • Double-hulling of fuel oil tanks

The shipping industry has likewise been double-hulling fuel oil tanks to prevent oil spills. Given that many vessels carry fuel oil in quantities that exceed that carried by small oil tankers, the IMO's MPEC amended MARPOL 73/78 in March 2006 to require double-hulling of fuel oil tanks with a capacity of 600m<sup>3</sup> or larger. The requirement applies to all newbuildings ordered from August 2007 onward or delivered from August 2010 onward.

Even before the requirement took effect, we had been ordering newbuildings with double-hulled fuel oil tanks. In fiscal 2009, we commissioned two new double-hulled chemical tankers with both cargo tanks and fuel oil tanks encapsulated by double hulls. A total of seven ships in our managed fleet (three owned by Iino Lines, four owned by other shipowners) have double-hulled fuel oil tanks.

#### • Installation of stern tube air seals

Ships' propeller assemblies require seals to prevent sea water from infiltrating the hull via the propeller shaft. Since 1997, we have been proactively installing stern tube air seals that utilize compressed-air force to prevent inward leaks of seawater and outward leaks of lubricating oil. Additionally, as a precaution against the unlikely event of a lubricating oil leak from a vessel not equipped with a stern

tube air seal, we are in the process of switching to an eco-friendly biodegradable stern tube lubricating oil that rapidly decomposes into water and CO<sub>2</sub> in seawater.

#### • Bilge treatment system

A ship in transit generates bilge, a mixture of wastewater and oily water, in its engine room. Bilge must be properly treated in accord with MARPOL 73/78 instead of being discharged into the sea. Specifically, oil is extracted from the bilge by a bilge separator, which separates the bilge into water and oil. Only water that meets effluent standards (i.e., oil concentration of less than 15ppm) may be discharged into the sea. The extracted oil is incinerated as waste.

To minimize the amount of bilge generated, we equip our vessels with a proprietary bilge source separation system. The system incorporates a primary tank that subjects the bilge to a preliminary separation process before pumping it into the bilge separator, thereby reducing the amount of bilge treated by the bilge separator and, in turn, minimizing the amount of water discharged into the sea.



Bilge primary tank (left)  
Bilge separator (right)

#### • Use of organotin-free antifouling paint on ship bottoms

When seaweed, shellfish, or other marine organisms adhere to a ship's bottom, hull resistance increases, resulting in increased fuel consumption and emissions of CO<sub>2</sub> and other exhaust gases. To prevent this, tributyl tin (TBT) paint, which contains organotin, a highly potent antifoulant (marine pesticide), has historically been widely applied to ships. In October 2001, however, the IMO banned new applications of TBT paint effective from January 2003 on the grounds that TBT is an endocrine disruptor. The ban was followed by an international convention requiring TBT paint to be completely removed from ships or overcoated with a sealer coat that prevents previously applied TBT paint from leaching into the sea, effective from January 2008. We voluntarily began using tin-free (TF) paint on newbuildings and overhauled ships well in advance of the IMO ban's effective date. By April 2004, 100% of our managed fleet was painted or overcoated with TF paint. The LNG tanker SK Sunrise's rudder has been painted with silicon paint since the ship was commissioned in September 2003. We currently use eco-friendly antifouling paints, including copper-, boron-, and zinc-based products.

## Safety and Environmental Measures in the Shipping Business

### Vessel Equipment for Marine Environmental Protection

#### • Proper treatment of ballast water

When in-ballast, vessels pump seawater (ballast water) into their ballast tanks to stabilize the vessel and maintain propeller and steering efficiency. Ballast tanks are usually filled at the port of discharge and emptied at the port of loading. Since the late 1980s, migration of marine organisms, such as small animals and plants and harmful microorganisms contained in ballast water, has been blamed for adversely affecting marine ecosystems around ports of loading worldwide. The International Maritime Organization (IMO) held numerous discussions on the issue, and in February 2004, an international convention that prescribed standards for ballast water management and treatment was adopted. A convention mandating the installation of ballast water treatment systems is expected to come into effect in 2016.

We are considering how to comply with the pending convention. Additionally, to protect biodiversity, our vessels replace ballast water in open waters as required by local regulations applicable to ports of call, to avoid importing foreign marine organisms into port of call waters.

\* For more information on proper treatment of ballast water, refer to page 38 of the IINO Report.

### Preventing ozone layer depletion

The ozone layer, at altitudes of 20-30km above the Earth, protects terrestrial organisms by absorbing the Sun's harmful ultraviolet rays. Ozone-depleting substances, such as CFCs and halon, react with and decompose ozone in the stratosphere, causing ozone layer depletion. To prevent ozone layer depletion, we have implemented the following measures for CFCs and halon.

#### • Substituting CFCs with alternatives

The HCFC refrigerant R-22 was widely used in vessel air conditioners and freezers because of its excellent refrigeration performance and reliability. But since its ozone-depleting and global-warming effects became clear, it has been increasingly replaced with CFC substitutes. We are switching to HFC refrigerant R-404a, whose ozone-depleting potential is zero, for our newbuilding vessels.

We do not own or operate container ships, so we do not use freezing container refrigerants.

#### • Decommissioning of halon fire extinguishers

We have already stopped purchasing halon fire extinguishers. Most of our vessels are equipped with CO<sub>2</sub> fire extinguishers or high-expansion foam fire extinguishers. Conversion to CFC substitutes is ongoing.

### Proper Treatment of Wastes

#### • Proper treatment of shipboard daily-life waste

Ship crews generate various daily-life waste while living aboard vessels. To protect the marine environment, we treat this waste properly according to the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

Waste is sorted by type and incinerated, dumped at sea, or transported to onshore waste reception facilities. Plastics are treated with particular care. All plastics are stored onboard and only unloaded for disposal, at which time receipts are issued and logged.

Shipboard waste is stored separately by type in color coded barrels: from left to right in the photograph, paper and cloth (black); plastic (red); metal, broken glassware and earthenware (green); food refuse (blue); and business waste such as packaging materials (yellow).



Sorted disposal of shipboard waste

#### • Proper incineration of waste oil

Vessel fuel oil contains many impurities that must be removed by a pretreatment system before use. Unwanted oil that contains moisture and impurities generated by pretreatment is collected in waste oil tanks, reheated to remove moisture content, and then incinerated in waste oil incinerators.

All of our newbuilding vessels since 2000 have been equipped with waste oil incinerators approved, as per the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), as capable of minimizing the generation of dioxin during incineration.

## Real Estate Business's Commitment to Safety and the Environment

### Real Estate Business's Commitment to Safety and the Environment

As a member of the Iino Group, Iino Building Technology (IBT), endeavors to ensure safety and protect the environment in accord with Iino's commitment to safety as the foundation of its business operations. By applying the preventive-maintenance mindset cultivated in the shipping business to building management, we are committed to providing office space and other facilities that all tenants can use comfortably and with peace of mind.

The office buildings that we manage are located in central Tokyo. As such, they are susceptible to adverse impacts from unstable societal elements and always at risk of crime or completely unforeseeable incidents. We can ensure safety by constantly anticipating hazards and preventing their occurrence with sound judgment. Our employees will continue to focus on developing their day-to-day hazard detection capabilities.

In 2005, IBT obtained ISO 9001 and 14001 certification of its building management operations. Working in accord with Iino Lines' management philosophy as an Iino Group company, we consider compliance with these ISO standards to be a key management priority. Adhering to corporate governance, internal control, and compliance frameworks, we are raising accountability in our management operations and endeavoring to improve management services and operate in

an environmentally sound manner.

In response to the Energy Conservation Act amendment, which took effect in April 2010, we collaborated with building owner Iino Lines to institute energy-saving practices across our operations. In addition to tightening operation of all buildings and collecting and statistically analyzing data, we will also formulate, execute, and review energy-saving strategies and develop energy management technicians.



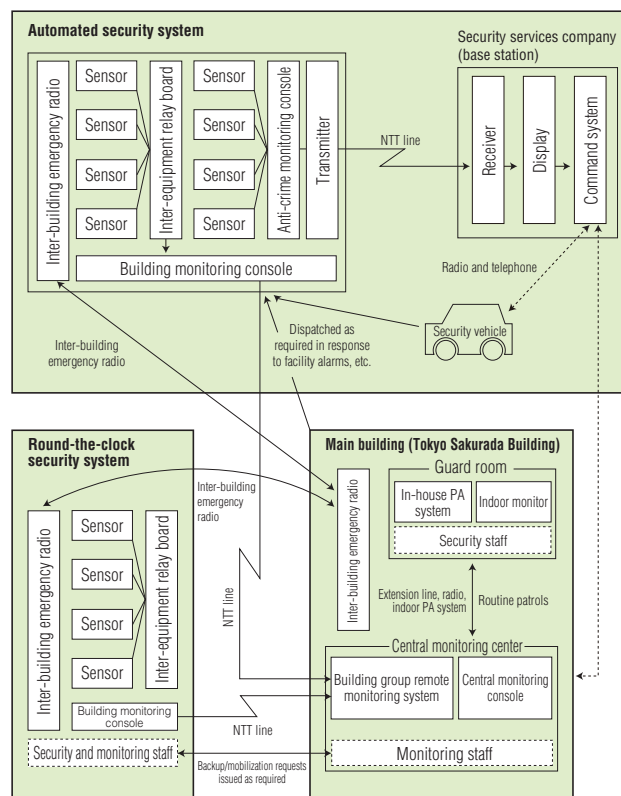
Hiroyuki Ishikawa  
President and Representative Director, Iino Building Technology

### Building Security and Security System

Following the completion of the Iino Building in 1960, the former Iino Real Estate established a security section to self-police the Iino Building. The knowledge and experience that Iino Real Estate had accumulated over many years were passed on to its successor, building management services company IBT. Since its certification as a security services business by the Tokyo Municipal Public Safety Commission, IBT has been committed to providing safe, comfortable environments for the tenants of our buildings.

We have adopted two modes of security: round-the-clock, provided by resident security staff stationed in our buildings, and automated, provided by security staff dispatched in vehicles in response to alarms activated by sensors installed in any of our buildings.

In fiscal 2009, security personnel responded to automated-system alarms 29 times in the building with the most alarm incidents. The causes that triggered the alarms include human error due to unfamiliarity with newly replaced equipment, doors left ajar, equipment malfunctions, and requests for doors to be locked or unlocked. In the event of an intrusion alarm, security personnel visit the scene of the alarm, check the status of security and the alarm system, inspect the office in question, fill out an alarm-response report, and submit a status report to the Tokyo Sakurada Building's monitoring center.



## Safety and Environmental Measures in the Real Estate Business

### Fire Prevention, Disaster Prevention, and Safety Activities

#### • Fire Safety Management

At multi-tenant office buildings, rigorous disaster preparedness is essential to prevent chaos in the event of a fire, earthquake, or other disaster. Of our lease buildings, the Tokyo Sakurada Building and Shiodome Shiba-Rikyu Building are required by the Fire Defense Act to have fire safety councils comprising representatives of all tenants in the building. We have voluntarily formed a fire safety council at the Sasazuka Center Building also. The councils plan and implement building-wide fire drills and periodic fire safety inspections. They also make and implement decisions on matters required for joint fire safety management, such as determining capacity limits.

The Tokyo Sakurada Building and Shiodome Shiba-Rikyu Building

are subject to the Periodic Fire Safety Inspection and Reporting System, under which qualified inspectors conduct annual inspections of tasks required for fire safety management at each business site and report the inspection results to the fire department. Information on inspections conducted in fiscal 2009 appears below. The Shiodome Shiba-Rikyu Building is now subject to mandatory disaster management as a result of amendments to the Fire Defense Act. Accordingly, we plan to report to the fire department on disaster prevention management tasks from next fiscal year.

Number of offices for which periodic fire safety management reports were filed in fiscal 2009

Shiodome Shiba-Rikyu Building: 17 offices  
Tokyo Sakurada Building: 34 offices

#### • Disaster Drills

The Iino Group periodically conducts disaster drills to ensure a rapid, calm response in the event of fire or other disaster.

##### Disaster drills conducted in fiscal 2009

Building name	Comprehensive drill	Firefighting drill	Earthquake evacuation drill	Other drills	Remarks
Tokyo Sakurada Building	Twice	Twice	Once	Announcement drill once every week	
Tokyo Fujimi Building	Once	Once	—		Planned and implemented by the tenants
Iino Takehaya Building	Evacuation drill run once	Once	Once		Planned and implemented by the tenants
Sasazuka Center Building	Once	—	—		
Shiodome Shiba-Rikyu Building	Twice	Twice	Once	Emergency rescue drill run once	Conducted other drills on the day of the comprehensive drill

### Building Maintenance and Management

#### • Safety and Sanitation Performance in the Real Estate Business

The Iino Group records and manages important data to improve safety and environmental performance in building management.

##### Air quality assessment results

(no. locations that achieved target / no. locations assessed; expressed as a percentage in parentheses)

(Scope of assessment: main lease buildings)

Items specified in the Building Sanitation Act*	2006	2007	2008	2009	
Air cleanliness	Percentage carbon dioxide content	792/804 (98.5%)	774/818 (94.6%)	449/483 (93.0%)	763/777 (98.2%)
	Percentage carbon monoxide content	804/804 (100.0%)	818/818 (100.0%)	483/483 (100.0%)	776/777 (99.9%)
	Amount of floating dust	803/804 (99.9%)	818/818 (100.0%)	483/483 (100.0%)	775/777 (99.7%)

\* Target reference values specified by the Building Sanitation Act

##### Results of water quality assessments

(Scope of assessment: all buildings owned or managed)

	2006	2007	2008	2009
Inspection result*	Normal	Normal	Normal	Normal

\* Inspection items are those specified in the Water Works Act and the Building Sanitation Act.

### Anti-Global Warming Measures

#### • Daytime and nighttime electricity consumption

Since fiscal 2007, the Iino Group has measured daytime and nighttime electricity consumption at its main rental buildings. The table below shows daytime and nighttime electricity consumption and CO<sub>2</sub> emissions by building.

##### Daytime and nighttime electricity consumption

	Time of day	Tokyo Sakurada Building	Tokyo Fujimi Building	Iino Takehaya Building	Sasazuka Center Building	Shiodome Shiba-Rikyu Building
Power consumption (kWh)	Daytime (8 a.m. to 10 p.m.)	1,583,501	767,309	378,393	1,161,315	3,652,668
	Nighttime (10 p.m. to 8 a.m.)	349,398	396,216	88,296	472,608	2,288,005
CO <sub>2</sub> emissions (kg)	Entire day	761,838	449,486	183,749	635,313	2,281,979

\* The CO<sub>2</sub> emission factors per unit of electricity consumption are identical to those employed in the Greenhouse Gas Emission Status Report issued by the Tokyo Metropolitan Government (daytime: 0.403kg CO<sub>2</sub>/kWh; nighttime: 0.354kg CO<sub>2</sub>/kWh)

## Real Estate Business's Commitment to Safety and the Environment

### Waste Output and Recycling

#### • Waste material reuse track record

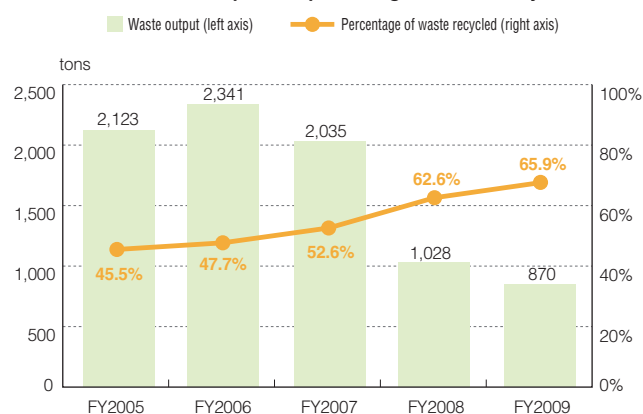
In accord with Tokyo's regulation on the Disposal and Reuse of Waste Materials, our main rental properties prepare and submit a Waste Reuse Plan for Large Commercial Buildings every year.

At the Shiodome Shiba-Rikyu Building, we installed a weighing scale to accurately measure the weight of and manage waste ourselves, and we keep accurate records regarding waste. In addition, to improve our recycling rate, we transport part of our waste plastic to a gasification plant in Chiba and reuse it as fuel. Waste output and percentage of waste recycled over the past five years, and the same data for each building appears in the adjacent chart and table.



Waste output and percentage of waste recycled

Actual waste output and percentage of waste recycled



Fiscal 2009 waste output and percentage of waste recycled by lease building

Category	Metric	Tokyo Sakurada Building	Tokyo Fujimi Building	Iino Takehaya Building	Sasazuka Center Building	Shiodome Shiba-Rikyu Building
Non-industrial waste	Amount disposed of (tons)	136	46	18	73	425
	Percentage of waste recycled (%)	48.6%	68.9%	86.6%	65.4%	77.3%
Industrial waste (construction waste not incl.)	Amount disposed of (tons)	38	13	3	11	109
	Percentage of waste recycled (%)	35.3%	28.1%	100.0%	27.2%	57.1%

#### • Recycling of scrapped fluorescent tubes

Discarded fluorescent light tubes from buildings we own or manage are collected for recycling via the Tokyo Environmental Public Service Corporation. To prevent mercury from being released and polluting the environment, the tubes are collected without being crushed. They are transported to Nomura Kohsan's Itomuka Refinery for recycling.

#### • Proper collection and storage of PCBs

PCB-containing fluorescent light tube ballasts used in our buildings and PCB-containing capacitors recovered from old transformers are collected, properly stored and managed according to laws and regulations applicable to PCB waste, such as the Waste Disposal Act. In June 2005, we completed early registration with the Japan Environmental Safety Corporation (JESCO), a 100% government-owned special company, for treatment of our PCB waste.

Status of PCB waste storage

Category	As of March 31, 2010
Light tube ballasts	594
High voltage capacitors	2
Total	596



## Head Office's Safety and Environmental Measures

### Safety Measures for Information Systems

#### Characteristics of safety measures

Information system safety measures can also be called risk management measures. Depending on how they are defined, information system safety measures encompass the following diverse aspects.

- (1) IT governance forming part of corporate governance
- (2) IT system risk management plan forming part of the business continuity plan
- (3) Internal control system infrastructure (IT general control / IT application control)
- (4) Information security management system that protects information assets.

IT system safety measures may differ in name or framework among these IT system component levels, but they are always incorporated, maintained, and operated at every level to protect the safety of informational assets and infrastructure.

#### Activities for ensuring information system continuity

Business continuity measures for information systems include the following broadly and narrowly defined measures.

- (1) Broadly defined: Information system risk management plan.
  - Forms part of the company-wide business continuity plan, including measures for major disasters across wide areas. Currently, we are moving main systems that require emergency recovery capability to a central data center, building backup systems, and conducting crisis action training.
- (2) Narrowly defined: Measures in response to damage (securing usability).
  - Response measures for when the company's network servers go down. To minimize the downtime, we have completely duplicated our core computer systems and main servers.

#### Activities related to the internal control system

- (1) IT control
  - We are working to implement comprehensive control over IT in general and over business processing performed via IT systems.
- (2) Document management
  - Proper management of highly numerous and varied documents (both digital documents and paper documents) is a prerequisite for implementing internal control systems and seeking ISO certifications. Therefore, we are striving to improve document management efficiency and secure audit traceability by developing special document management software that manages the entire document preparation process, through to disposal, and by training all relevant members of the IINO Group.

#### Activities related to the information security management system (ISMS)

We consider the information security management system (ISMS) the foundation of our safety measures for information systems.

##### (1) Basic information-security functions

All Group companies, including IINO System, conduct activities to maintain the following basic information security functions.

- (i) Confidentiality
  - Ensuring that information is accessible only to those authorized to access it
- (ii) Integrity
  - Safeguarding the accuracy and completeness of information and processing methods
- (iii) Availability
  - Ensuring that information and related assets are available to authorized users when needed

##### (2) Information security management activities

We implement the following measures to ensure information security:

- (1) Institutional measures
  - Establishment and implementation of an information security policy based on international standards as common rules for the entire IINO Group
  - Development of procedures and manuals and hosting of regular security seminars for all personnel of the IINO Group
- (2) System-oriented measures
  - Introduction of various security devices and applications to prevent unauthorized access to the in-house network
  - Introduction of various access control and monitoring measures, such as encryption, tamper-proofing and access logging, to protect confidential documents
  - Use of system to manage website access and prevent computer virus infections due to viewing of unsafe sites.
  - Periodic data backup and use of robust storage services

Human factors have a major impact in terms of establishing and maintaining information security. Information security measures function fully only when they are incorporated into every organizational unit's day-to-day operations and enforced via the ISO PDCA cycle. In this sense, the strongest safeguard is promoting a rigorous security consciousness among all Group personnel. Always mindful of this point, we will continuously endeavor to improve information security.



Osamu Yamane, President and CEO  
IINO System

## Head Office's Safety and Environmental Measures

### Head Office's Commitment to Environmental Conservation

At the Shiba-Daimon Front Building, which houses the Iino Group's head offices, we conduct environmental preservation activities revolving around the ISO 14001 environmental management system standard.

To promote widespread awareness of environmental protection among employees, we use a digital bulletin board on our intranet to disclose ISO 14001 annual targets and results and advocate green procurement (see sidebar at right).

When we relocated to the Shiba-Daimon Front Building in the second half of fiscal 2007, we did not have historical data to use for environmental benchmarking, so we set new quantitative targets in fiscal 2008. We measured baseline values for electricity, copy paper, and paper cup use. Based on measured values for 2008, in fiscal 2009 we converted our targets for paper cup and copy paper use from aggregate values to a per-head basis to promote awareness at the individual employee level. Although we did not reach our fiscal 2009 targets, we have set new targets for 2010 and are working as one to help protect the environment.

#### • Electricity conservation

We used 502,455kWh of electricity in the first half of fiscal 2008 and 353,490kWh in the second half. For fiscal 2009, we set a target of reducing electricity use by 1%

(9,200kWh/year) versus the fiscal 2008 baseline by encouraging employees to turn off lights and PCs when not needed.

All told, we used 929,550kWh of electricity in fiscal 2009, an increase of 1.03% versus fiscal 2008. For fiscal 2010, we have set a target of reducing electricity use by 1% (9,300kWh/year) versus fiscal 2009.



Reminder to turn off lights

#### • Reduction of copy paper consumption

We used 3,147,000 sheets of copy paper in fiscal 2008, or 10,777 per employee. We set a fiscal 2009 target of reducing copy paper use by 1% per employee (106 sheets/employee/year) by implementing the measures below.



Collecting paper for recycling and promoting the use of flipside of paper

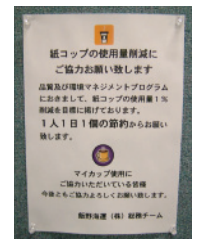
As a result, we achieved a 2.84% reduction in fiscal 2009 to 10,471 sheets per employee. For fiscal 2010, we have set a target of reducing use by 1% (105 sheets/employee/year).

#### Measures to reduce copy paper use:

- To reduce misprints, employees are asked to get into the habit of resetting copier settings after every use
- Used copy paper with a usable flipside is collected and reused
- Copying on both sides of paper, making reduced scale copies

#### • Reduction of paper cup use

We used 86,000 paper cups in fiscal 2008, or 294.5 per employee. We set a target of reducing this by 5% (15 cups/employee/year) in fiscal 2009. All told, paper cup use increased by 3.74% in fiscal 2009 to 305.5 cups per employee. For fiscal 2010, we have set a target of reducing paper cup use by 5% (15 cups/employee/year)



Sign encouraging reduced paper cup usage

### Digital bulletin board to internally promote green procurement

#### When purchasing...

- (1) Purchase only what is needed in the amount needed.
- (2) Choose long-lasting products rather than disposable ones.
- (3) Choose products with low energy-use profiles, including energy used for disposal.
- (4) Choose products that pose lower environmental-contamination risk and lower health risk attributable to chemical substances.
- (5) Choose products based on their potential impact on the natural environment and wild animals.
- (6) Choose products with no or less packaging.
- (7) Choose recycled and/or recyclable products.
- (8) Choose manufacturers or stores that are active advocates of environmental protection.

#### Environmental labels

Indicators of environmentally friendly products



- 1: Uses thinned timber
- 2: Eco-mark
- 3: Meets energy-consumption standards
- 4: Meets energy-saving standards
- 5: Provides energy savings
- 6: PC3R-compliant computer
- 7: Uses recycled milk cartons
- 8: Uses recycled PET bottles
- 9: Environmentally symbiotic housing
- 10: Uses recycled paper
- 11: FSC forest management certification
- 12: Reduced vehicle exhaust gas emissions

#### • Involvement in the Challenge 25 Campaign

To combat global warming, Iino Lines previously participated in Team Minus 6 Percent, a national campaign aimed at achieving the Kyoto Protocol's targets. In January 2010, we carried our participation over to its successor, the Challenge 25 Campaign. We are working with renewed vigor toward achieving the Japanese government's target of reducing greenhouse gas emissions by 25% by 2020 versus 1990 levels.

# Safety and Environmental Management

## Iino Lines' Environmental Management System

### • Iino Lines' and the Iino Group's Management System Certifications

Iino Lines obtained combined ISO 9001/14001 certification for its Shipping Business in March 2004. The certification's scope was extended in March 2005 to building leasing operations at the Iino Building, and further extended in September 2007 to cover building leasing operations at all buildings. Four Iino Group companies have obtained ISO 9001 and 14001

certifications: Iino Lines, Iino Marine Service (ship management), Iino Building Technology (building management), and Iino Gas Transport (gas transport in domestic (Japan) and adjacent (Asia) waters). We have implemented and continue to develop quality and environmental management systems that encompass our entire Shipping and Real Estate Businesses.

### • Iino Lines' Quality Management Program

Cat.	Objective	2009 target		Result	2010 target	Action plan
Quality	(All divisions) J-SOX compliance	Implement internal controls	×	Uncovered/evaluated risks Risk management system not instituted. Internal control system's operational status not evaluated	Create an environment conducive to internal control	Establish an internal ERM system and evaluate its operational status
	Sales Division Ensure safe operations, and provide efficient shipping, consistent services, and safe, comfortable rental spaces	Rigorous cost management (reduce vessel off-hire time to less than 1% of total voyage time, excl. vessels in docks)	✓	0.76% (Iino Group average)	Rigorous cost management (reduce vessel off-hire time to less than 0.76% of total voyage time, excl. vessels in docks)	Regular meetings with Iino Marine Service
		Swiftly provide accurate ship movement reports (reduce customer complaints about movement reports to zero)	✓	Provided ship movement reports	Swiftly provide accurate ship movement reports (reduce customer complaints about movement reports to zero)	Provide ship movement reports at regular divisional meetings
		Provide market and industry information (seek customer evaluations)	✓	Visited and interviewed customers	Provide market and industry information (seek customer evaluations)	Regular visits to customers
		Zero complaints from tenants (customers)	✓	Zero complaints	Zero complaints from tenants (customers)	Regular visits to tenants (customers) Regular group (team) meetings
	Administrative Division Set divisional objectives aimed at improving services	Reduce substitution of proposals/reports with revised versions (reduce by 1%)	×	Up 6.37% vs. 2008 (22.4% incidence)	Reduce substitution of proposals/reports with revised versions (reduce by 1%)	Careful ex-ante checks
		Business training (at least five times during the year)	✓	Conducted group, accounting, and level-based training	Business training	Conduct training at least five times during the year
		Language training (improve English test scores for 80% of the employees attending external English schools)	×	5 out of 22 TOEIC test takers improved scores	Language training	Improve English test scores for 80% of the employees attending external English schools
		N/A	N/A	N/A	Reduce overtime work (reduce by 5% vs. 2008)	Group-wide awareness campaign targeting, e.g., energy conservation
		Improve IR activities and materials (interview stakeholders at least 20 times a quarter)	✓	Conducted interviews at least 20 times a quarter Prepared the Iino Report and various other materials	Improve IR activities and materials	Interview stakeholders at least 20 times a quarter
		Distribute seminar reports to employees (distribute at least six reports)	✓	Distributed 13 reports to employees	Distribute seminar reports to employees	Distribute at least six reports to employees
		In-house press releases on safety/environment-related and legal/insurance-related issues (distribute at least six reports on each topic to employees during the year by in-house digital bulletin board)	✓	7 reports on safety/environment-related issues 15 reports on legal/insurance-related issues	In-house press releases on safety/environment-related and legal/insurance-related issues	Distribute at least ten reports on each topic to employees during the year by in-house digital bulletin board
		Enhance cash management (keep deviation from forecast to within 10%)	×	Deviation from forecast exceeded 10%	Enhance cash management	Keep deviation from forecast to within 10%
		Adequately respond to complaints associated with new building construction	✓	Adequately responded to minor complaints from neighboring properties	N/A	N/A
		HR development through education and training (Class A hazardous materials chief officer certification by five new employees)	✓	All five new employees obtained certification	HR development through education and training	All new employees receive practical training on tanker operations

## Safety and Environmental Management

### • Initiatives to Enhance our Management System

Seven years have passed since Iino Lines launched its ISO-based management system in October 2003. In spring 2010, the system underwent its second recertification audit.

The recertification audit went smoothly, and the quality management system component moved to the ISO9001:2008 standard.

Looking back on fiscal 2009, we achieved most of our targets but left some unattained. For example, although we uncovered risks associated with our internal controls, we did not complete our target of implementing risk management systems and evaluating their operational status.

We have again set ambitious targets for fiscal 2010 and hope to make even greater improvements with respect to all of these targets.

We have adopted ISO standards not only for quality and environmental management but as an all-encompassing management framework. Utilizing the PDCA (Plan-Do-Check-Action) cycle, we are pursuing improvement across our entire operations. For example, by formally integrating J-SOX documentation into the management system, we are implementing internal controls and tracking documents' version history.

We will continue implementing the management system throughout the entire Iino Group. We aim to deeply embed the PDCA cycle within our operations in compliance with ISO standards, even at affiliated companies that are not ISO certified.

### • Iino Lines' Quality and Environmental Policies

1. Fulfill our social responsibilities by bolstering our corporate governance system.
2. Optimize our back-office operations and work environment for better customer satisfaction.
3. Implement measures to reduce environmental impact of the Shipping Business, Real Estate Business, and Iino's office operations.
4. Practice continual improvement by implementing and revising our quality and environmental management systems.
5. Establish quality and environmental objectives/targets, periodically evaluate progress and achievements, and revise accordingly.
6. Provide education and training to all personnel concerned and ensure that they understand their respective duties and the significance of these policies.

### • Iino Lines' Environmental Management Program

Cat.	Objective	2009 target		Result	2010 target	Action plan
Environment	Reduce waste and save and recycle resources	Reduce paper cup use by 5%	×	Increased by 3.74% vs. 2008	Reduce paper cup use by 5%	Awareness-raising education on recycling
		Reduce paper use at Shiba-Daimon Front Building by 1% vs. 2008	✓	Reduced by 2.84% vs. 2008	Reduce paper use at Shiba-Daimon Front Building by 1% vs. 2009	Encourage use of flip side of used paper
		Keep shipboard waste generation and disposal at 2008 level	×	Increased by 4.6% vs. 2008	Shipboard waste generation and disposal at 2009 level or lower	Awareness-raising education
	Reduce natural resource consumption and conserve energy	Reduce operated vessel's fuel consumption by 1% vs. 2008 (per operating deadweight ton)	✓	Reduced by 4.24% vs. 2008	Reduce operated vessel's fuel consumption by 1% vs. 2009 (per operating deadweight ton)	Install energy-saving equipment Strive to operate vessels on less fuel
		Reduce CO <sub>2</sub> emissions at all buildings to 2008 levels or lower	✓	Reduced by 1.3% vs. 2008	Reduce buildings' greenhouse gas emissions to below 2009 level	Develop methods to reduce emissions
		Reduce power use at Shiba-Daimon Front Building by 1% vs. 2008	×	Increased by 1.03% vs. 2008	Reduce power use at Shiba-Daimon Front Building by 1% vs. 2009	Ask for unneeded lights and equipment to be turned off
	Respond to accidents and hazards	Incidence of oil or chemical spills onto deck or overboard: 0.005 or less (per voyage)	✓	0.00046	Incidence of oil or chemical spills onto deck or overboard: 0.0005 or less (per voyage)	Awareness-raising education
Social contributions	Participate in social contribution activities at least twice over the year, with at least 10 participants in total	✓	Participated on two occasions, 18 participants in total	Participate in social contribution activities at least twice over the year, with at least 15 participants in total	Awareness-raising education	



# Safety and Environmental Management

## Iino Marine Service's Safety, Quality and Environmental Management Systems

### • Iino Marine Service's Management System Certifications

Ship management company Iino Marine Service (IMS) implemented a safety management system compliant with the International Safety Management (ISM) Code in July 1994, and became the second Japanese shipping company to obtain an ISM Code Document of Compliance. Concurrently, IMS implemented a quality management system and became the first Japanese shipping company to obtain ISO 9002 certification. It migrated to ISO 9001 in September 2002. The

company established an environmental management system and obtained ISO 14001 certification in March 2002. Rather than standing alone, these systems are now integrated under Iino's Basic Policies on Health, Safety, Security, and the Environment. They function and are improved as a complete whole. Both the quality and environmental management systems apply to the entire IMS company and all ships under its management. Our Busan branch was added to the systems' scope from 2008.

### • Initiatives to improve management systems

IMS is endeavoring to continuously improve its operations in terms of safety, quality, and the environment through such means as obtaining ISO 9001 and 14001 certifications as mentioned above. To conduct internal audits more effectively, five IMS personnel were certified as ISO 9001/14001 internal auditors in fiscal 2009 after undergoing ISO internal auditing training. Also in fiscal 2009, IMS once again updated its targets related to health, safety, security, quality, and the environment and endeavored to accomplish them. Although it successfully achieved many of the targets, it did not achieve all of them. In terms of the environment, IMS achieved all of its targets

related to prevention of marine and air pollution, but fell short of its targets for reducing trash output and its offices' paper and electricity consumption.

In terms of quality, IMS achieved its targets of maintaining a high crew retention rate and reducing deficiencies identified by Major Oil Inspections. However, it failed to achieve its targets for customer satisfaction and incidence of marine accidents. IMS will pursue further improvement in the areas in which it achieved its targets. In the areas in which it failed to do so, IMS will identify the causes of its failure and step up its efforts accordingly.

### • Iino Marine Service – Safety and Quality Management Program

Cat.	Objective	Target metric	2009 target (2008 result)	2009 result	2010 target	Action plan
Health	Prevent job-related sickness/injury	Lost-time injuries to seamen (per million working hours)	Tankers: 0.666 or less (0.784)	✗ 0.863	0.863 or less	<ul style="list-style-type: none"> <li>Run monthly safety and health campaigns in company newsletters</li> <li>Ensure awareness among crew through the Shipboard Health and Safety Committee's monthly activities</li> <li>Communicate accident cases to crews at pre-voyage training sessions / ship visits to encourage preventive behavior</li> </ul>
			Bulkers: 0.724 or less (0.724)	✓ 0.712	0.712 or less	
Safety	Prevent collisions	Collisions/groundings (including fixed-object/pier/bottom-scraping incidents) (per voyage)	0.001 or less (0.00089)	✗ 0.00274	0.001 or less	<ul style="list-style-type: none"> <li>Perform navigational audit and review procedures</li> <li>Comply strictly with the Special Navigation Procedures (comply with under-keel clearance (UKC) policies)</li> <li>Thoroughly confirm pilots' intentions when they board</li> <li>Report port information to Iino Marine Service</li> </ul>
	Prevent mechanical failures	Equipment failures/accidents (per voyage)	0.03 or less (0.028)	✓ 0.015	0.01 or less	<ul style="list-style-type: none"> <li>Perform maintenance according to maintenance manuals</li> <li>Investigate cause of equipment-damaging accidents when they occur and use the findings to prevent recurrence</li> <li>Ascertain status of ships under management and issue appropriate advice</li> </ul>
	Avoid storms	Storm-related hull damage accidents (per voyage)	0.0010 or less (0.0013)	✗ 0.0014	0.0010 or less	<ul style="list-style-type: none"> <li>Improve ability to analyze weather information</li> <li>Educate crews on effective use of onboard weather information systems</li> <li>Provide avoidance navigation service to vessels expected to travel near tropical cyclones</li> <li>Alert crew when chemical tankers travel waters where wave height exceeds 3m</li> <li>Pay sufficient attention to weather conditions during ship-to-ship operations and set safety standards</li> </ul>
Security	Proactively avoid security breaches	Third-party audit criteria (Port State Control, Major Oil Inspection, etc.) identified (per inspection/audit)	0.050 or less (0.051)	✓ 0.03	0.020 or less	<ul style="list-style-type: none"> <li>Comply with the Ship Security Regulations</li> <li>Thoroughly check ship visitors' ID cards</li> <li>Enforce the Ship Security Plan through internal audits</li> <li>Establish procedures for ship visitors and educate crews on them via ship visits etc.</li> </ul>
Quality	Enhance customer satisfaction	Maritime accidents (collisions, fires, groundings, oil spills) (per voyage)	0.0030 or less (0.0031)	✗ 0.00319	0.0025 or less	<ul style="list-style-type: none"> <li>Perform navigational audits and raise awareness through safety seminars</li> <li>Comply strictly with the UKC policies and confirm compliance upon vessel visits</li> <li>Collect more-accurate port information</li> <li>Person in charge to alert crews before entering canals or high-risk ports</li> <li>Prevent marine accidents through ISM-compliant maintenance and management</li> </ul>
		Deficiencies identified by Major Oil Inspection (per inspection)	7.00 or less (7.64)	✓ 6.3	6.00 or less	<ul style="list-style-type: none"> <li>Quantitatively analyze OJT results and subsequent OJT sessions</li> <li>Quantitatively analyze the effects of and validate the awards system</li> <li>Provide full support to vessels under management to enable proper responses to Major Oil Inspection-related questions</li> <li>Perform thorough checks three days and one day before inspections</li> <li>Plan and carry out Major Oil Inspections</li> </ul>
		Failure of or damage to facilities/equipment affecting shipping schedule, environment, or cargo handling (per vessel)	0.20 or less (0.17)	✓ 0.063	0.05 or less	<ul style="list-style-type: none"> <li>Perform planned maintenance</li> <li>Fully implement preventive measures</li> <li>Enhance reporting to ship owners</li> </ul>
		Retention rate for officers with more than 2 years' service	80% or more (83.52%)	✓ 81.44%	80% or more	<ul style="list-style-type: none"> <li>Enhance supervision of crew manning companies</li> <li>Analyze reasons for crew turnover and make improvements</li> </ul>
		Retention rate for senior officers (top 4) with more than two years' service	80% or more (85.11%)	✓ 82.77%	80% or more	
Average customer satisfaction rating	3.8 or higher (3.3)	✗ 2.9	3.8 or higher	<ul style="list-style-type: none"> <li>Cost savings compatible with safety and efficient operation</li> <li>Promptly report and respond to problems</li> <li>Visit ship owners periodically to receive and respond to complaints</li> <li>Reduce vessels' communications expenses</li> </ul>		



## Safety and Environmental Management

### • Quality Policy

1. The Company will deepen ties with customers to accurately understand their needs and continuously provide high-quality services in its core business of ship management.
2. Each division will set quality targets, evaluate their achievement through the PDCA (Plan-Do-Check-Action) cycle, and

continuously make improvements.

3. The Company will conduct education and training as necessary to ensure that employees correctly understand their individual roles and the significance of the quality policy and quality targets.

### • Environmental Policy

- (1) The Company will prevent pollution by developing, documenting, and acting according to an environmental management system that regulates the efforts of vessels on voyages to protect marine environments and the environmental protection efforts of the Company's offices. The system's effectiveness will be continuously improved.
- (2) The Company will comply with environmental laws and regulations applicable to vessel navigation and other requirements the Company has agreed to fulfill.
- (3) The Company will commit itself to environmental protection activities by setting specific environmental objectives and targets according to its environmental policy and act accordingly; furthermore, the Company will review the environmental policy, objectives, and targets as required.
- (4) The Company will ensure that these policies are known, understood, practiced

and maintained by all crew members of ships under its management and its entire onshore staff. External parties involved in activities of the Company will also be informed of the environmental policy.

- (5) To ensure that the Company's environmental management system functions effectively, a management representative authorized to implement the system and responsible for reporting the maintenance and implementation of the system will be appointed as detailed in the attached sheet.
- (6) The Company will provide necessary and appropriate management resources and support for the management representative to carry out assigned duties.
- (7) The Company will actively provide education and training to ensure that all employees act in conformity with the environmental management system.
- (8) The Environmental Policy will be made publicly available as appropriate.

### • Iino Marine Service – Environmental Management Program

Cat.	Objective	Target metric	2009 target (2008 result)	2009 result	2010 target	Action plan	
Environment	Prevent marine pollution	Oil or chemical spills onto deck or overboard (per voyage)	0.0005 or less (0.0004)	✓ 0.00046	0	<ul style="list-style-type: none"> <li>• Awareness-raising education for crews</li> <li>• Hold meetings before cargo handling and other work</li> <li>• Prevent marine accidents through ISM-compliant maintenance and management</li> <li>• Check scupper plugs and spill tank plugs</li> <li>• Prevent oil spills during bunkering or from lubricant coolers</li> <li>• Properly maintain and operate cargo/communication/measurement equipment</li> <li>• Always check hydraulic lines before entering ports</li> <li>• Enhance emergency-response capabilities by enhancing tabletop drills and onboard training</li> <li>• Raise awareness through safety seminars</li> <li>• Strictly require chemical tankers to recheck hydraulic lines before entering ports</li> </ul>	
	Reduce waste	Amount spent on paper cups for office use	N/A	N/A	77,204 yen	73,444 yen	<ul style="list-style-type: none"> <li>• Encourage workers to use their own cups</li> <li>• Awareness of internal education</li> </ul>
		Disposal of garbage/waste produced on vessels (vs. previous year)	2008 level or lower (11% increase)	✗	10% increase	Maintain 2009 level	<ul style="list-style-type: none"> <li>• Crew awareness education</li> <li>• Adherence to procedures</li> <li>• Appropriate disposal of packaging waste</li> </ul>
		Plastic/plastic-sheeting waste landed (by applicable vessels)	Land all such waste (All such waste landed)	✓	All such waste landed	Land all such waste	<ul style="list-style-type: none"> <li>• Never fail to convene the EMS Committee</li> <li>• Provide guidance and education during the pre-boarding meeting</li> </ul>
	Reduce natural resource consumption	Offices' monthly paper purchases (no. sheets) (per office worker)	720 sheets or fewer (758 sheets)	✗	830 sheets	805 sheets	<ul style="list-style-type: none"> <li>• Internal awareness education</li> <li>• Encourage paper reuse</li> <li>• Shift toward paperless offices by advocating use of PDFs and other means</li> </ul>
		Offices' monthly electricity use (per office worker)	178.9kWh or less (188.3kWh)	✗	199.4kWh	187.6kWh	<ul style="list-style-type: none"> <li>• Minimize overtime/holiday work</li> <li>• Implement Japan's Cool Biz and Warm Biz initiatives</li> <li>• Always turn off PCs when leaving office, and turn off lights during lunch time</li> </ul>
	Prevent air pollution	Sulfur content of fuel oil	3.0% or less (2.95%)	✓	2.96%	3.0% or less	<ul style="list-style-type: none"> <li>• Request analysis by an independent body to ascertain fuel oil sulfur content</li> <li>• Comply with MARPOL Annex VI regarding sulfur content of fuel oil, and continuously monitor regulatory trends in all relevant countries</li> </ul>
		Fuel-use reducing equipment/systems (proportion of vessels equipped)	10% or more (13.0%)	✓	20.0%	20%	<ul style="list-style-type: none"> <li>• Search for and consider adopting equipment, systems, and technologies that promise fuel-use reductions</li> <li>• Adopt equipment and systems that reduce fuel use</li> </ul>
		Lubricant-use reducing equipment/systems (proportion of vessels equipped)	38% (37.04%)	✓	40%	40%	<ul style="list-style-type: none"> <li>• Search for and consider adopting equipment, systems, and technologies that promise lubricant-use reductions</li> <li>• Adopt equipment and systems that reduce lubricant use</li> </ul>

# Safety and Environmental Management

## Iino Building Technology's Quality and Environmental Management Systems

### • Management System Certifications

In June 2005, building management company Iino Building Technology implemented a quality management system and an environmental management system that applied to its head office and the Iino Building, and obtained combined ISO 9001/14001 certification for those systems.

### • Initiatives to improve management systems

Iino Building Technology launched its quality and environmental management systems (for property management operations at the Iino Building) on October 18, 2004. In October 2009, the systems entered their sixth year of operation.

In March 2006, Iino Building Technology migrated to ISO 14001:2004. In July 2008, when the Iino Building was decommissioned for reconstruction, it expanded its quality and environmental management systems' scope of application to encompass the five office buildings it manages with floor area in excess of 4,500m<sup>2</sup>. In May 2009, Iino Building Technology migrated to ISO 9001:2008. It has also updated its management manual, now in its ninth edition, to comply with ISO standards' latest requirements. In 2011, Iino Building Technology is scheduled to undergo its second ISO recertification audit. Personnel throughout Iino Building Technology's organization are gaining understanding of the PDCA (Plan-Do-Check-Act) cycle. Within the PDCA cycle, one area where further improvement is needed is translating the results of the check step into action (improvement). In particular, personnel need to be more proactive in proposing post-check improvements.

In September 2007, the management systems' scope, and its ISO certification, was extended to buildings with gross floor areas of 4,500m<sup>2</sup> or greater (six in total).

The quality and environmental management systems are operated according to an integrated management manual.

In 2010, Iino Building Technology is conducting in-house training programs related to corporate governance (internal controls) and better compliance with ISO standards (consciousness-raising). Held monthly, these training sessions revolve around themes chosen by mid-level managers.

Iino Building Technology is counting on its nine internal auditors to provide guidance and feedback throughout its organization through not only self-development activities but also internal audits. By so doing, the internal auditors will deepen understanding of management systems among Iino Building Technology personnel.

With CO<sub>2</sub> emission reduction measures becoming increasingly granular pursuant to Japan's recently amended Energy Conservation Act, which took effect on April 1, 2010, Iino Building Technology is faced with the imperative of implementing the PDCA cycle more effectively. All personnel must play a part in management systems' operation with a common mindset. Iino Building Technology believes that such an approach contributes to upgrading operations, improving customer satisfaction, and preserving the environment.

### • Iino Building Technology – Quality Management Program

Cat.	Objective	Target metric	2009 target	2009 result	2010 target	Action plan
Quality	Enhance customer satisfaction	Number of accidents in buildings	0 accidents	✓ 0 accidents	Maintain safety/environment within managed buildings Contribution index:* Tokyo Sakurada Building: 1% or higher Tokyo Fujimi Building: 2% or higher	<ul style="list-style-type: none"> <li>Apply the Guidelines for Early Recognition of Abnormalities</li> <li>Checks by guards and via ITV security monitoring</li> <li>Patrols inside/outside buildings</li> </ul>
		Number of occupational accidents	0 accidents	✓ 0 accidents	0 accidents	<ul style="list-style-type: none"> <li>Apply the Quality Objectives Implementation Guidelines</li> <li>Hold internal risk-assessment training sessions. All Monitoring Center personnel to attend. Personnel take turns as lecturer</li> <li>Monitoring Center Manager to keep a written log of training sessions</li> </ul>
		Prevent accidents and complaints due to facilities works/installations	Incidence of accidents/complaints per job: 0.9% or less	✓ Incidence: 0.7% (2 incidents over the year)	Incidence of accidents/complaints per job: 0.9% or less	<ul style="list-style-type: none"> <li>Before starting works, hold meetings with contractors based on the Safe Operation Instructions; request process charts and safety operation procedures for the work if necessary</li> <li>Be present on-site when construction work involves hazardous tasks and document it using a checklist</li> </ul>
		Reduce number of corrections identified by completion inspections	Correction criteria identified: 5% or fewer	✓ Correction criteria identified: 0% (no corrections were identified for all 93 inspections)	Maintain 5% or fewer correction criteria identified	<ul style="list-style-type: none"> <li>Apply the Guidelines for Reducing Rework</li> <li>Before starting works, ensure contractors fully understand the requirements of work to be performed</li> </ul>
		Improve janitorial services' quality (reduce deficiencies identified by janitorial inspections)	Deficiencies identified: 6% or fewer inspection criteria	✓✗ Not achieved at 1 building due to replacement of janitorial staff Achieved at 3 buildings	Maintain 6% or fewer correction criteria identified	<ul style="list-style-type: none"> <li>Apply the Quality Improvement Implementation Guidelines for Janitorial Services, conduct periodic janitorial inspections and evaluations</li> <li>Conduct daily inspection rounds</li> </ul>
		Implement internal controls • Group-wide control • Control over business processes	Maintain/revise group-wide internal control evaluation sheet Put in place/revise the 3 process-control documents for the 3 main business processes	✓ Content of evaluation sheet and documentation for both group-wide control and process-control were checked and revised	Maintain/revise group-wide internal control evaluation sheet Put in place/revise the 3 process-control documents for the 3 main business processes	<ul style="list-style-type: none"> <li>Maintain/revise the group-wide internal control evaluation sheet</li> <li>Maintain/revise the 3 process-control documents for the maintenance and repairs, management, and meter-reading processes</li> </ul>

\* Contribution index = ((A / B) + C) × 12 months / (D) × 100 (%)

A: No. incidents reported

B: No. working days

C: Security / environmental protection index = ((A / B) for same month of previous year) - ((A / B) for current month) × 0.5

D: 300 (According to Heinrich's law, 300 potentially serious accidents occur for every major accident.)

## Safety and Environmental Management

### • Quality and Environmental Policy

1. Establish an operational structure and work environment conducive to customer satisfaction.
2. Practice environmental protection, improvement measures, and contamination prevention as part of building management operations and in the company's offices.
3. Establish quality and environmental objectives and targets and periodically evaluate and review progress and performance.
4. Adhere to related laws and regulations and other requirements to which the organization subscribes.
5. Conduct education and training for all employees of departments that operate the systems, and ensure they understand the significance of this policy and their roles.
6. All employees of system operation departments must exchange information through internal and external communication and work to satisfy the demands of customers and other stakeholders.
7. Continuously improve the system based on the results of internal audits and management reviews to comply with the systems' requirements and ensure and maintain the systems' effectiveness.

### • Iino Building Technology – Environmental Management Program

Cat.	Objective	Target metric	2009 target	2009 result	2010 target	Action plan
Environment	Reduce natural resource consumption and save energy	Green procurement	Purchase 10 or more item types	✓ 28 item types purchased	Purchase 12 or more item types	<ul style="list-style-type: none"> <li>• Select daily-use green procurement item types from:               <ol style="list-style-type: none"> <li>1. Special procurement items</li> <li>2. Ecomark products</li> </ol> </li> <li>• Set and purchase a target no. of item types from the selected item types</li> </ul>
		Use environmentally sound building materials	Ensure all paints/coatings, adhesives, and detergents used have a formaldehyde emission rating of F☆☆☆☆.	✓ All paints/coatings and adhesives used have a F☆☆☆☆. Detergents are essentially formaldehyde-free and so were otherwise confirmed as safe before use.	Use environmentally sound building materials Use of paints/coatings and adhesives with a formaldehyde emission rating of F☆☆☆☆: 100%	<ul style="list-style-type: none"> <li>• Contractors must submit to us the manufacturer name, product name, and formaldehyde emission rating of any paints/coatings and adhesives before using them.</li> <li>• Instruct contractors to change any materials not rated F☆☆☆☆.</li> </ul>
		Adopt facilities/equipment that help save energy	Adoption rate of 91%	✓ 91% or higher achieved on all investigated items	Set environmental objectives related to saving energy	<ul style="list-style-type: none"> <li>• Implement measures to achieve targets in accord with implementation procedures</li> <li>• Keep a log of green procurement items adopted</li> </ul>
		Reduce electricity use by turning off lights in common-use areas	Contribution index:* Tokyo Sakurada Building: 1.5% or higher Tokyo Fujimi Building: 2.5% or higher	✓ Contribution index: Tokyo Sakurada Building: 1.908% Tokyo Fujimi Building: 4.13%	Contribution index: Tokyo Sakurada Building: 1.5% or higher Tokyo Fujimi Building: 3.0% or higher	<ul style="list-style-type: none"> <li>• Apply the Energy Consumption Reduction Guidelines for common-use area lighting</li> <li>• Confirm on/off status of common-use lighting via the control panel when changing shifts</li> <li>• Turn off unused lights in common-use areas when patrolling</li> </ul>
		Use of flip side of used A4 copy paper	Use flip side of 30% or more of used paper	✓X Tokyo Sakurada Building: 41.1% (annual) Tokyo Fujimi Building: not achieved Iino Takehaya Building: 40% (1H), 44% (2H) Sasazuka Center Building: 55.9% (1H), 49.7% (2H) Shiodome Shiba-Rikyu Building: 44.8% (annual)	Use flip side of 30% or more of used paper	<ul style="list-style-type: none"> <li>• Apply the Environmental Target Implementation Guidelines</li> <li>• Use flipside of paper, excl. important documents</li> <li>• Building managers to bring back head office's used paper when attending monthly meetings</li> <li>• Encourage all buildings to collect waste paper from botched copies</li> <li>• At start of month, ascertain no. new sheets used, no. flip sides used, and total no. sheets of paper used</li> </ul>

\* Contribution index = (A × B + C) / (D × E) × 100

A: No. patrols on which lights were turned off

B: Total no. lights turned off

C: Increase in tenants' energy-saving awareness

C = ((A × B in prev. year) - (A × B this year)) × 0.5

D: Number of patrols

E: Common-use floor area (m<sup>2</sup>)

## Safety and Environmental Management

### Iino Gas Transport's Quality and Environmental Management Systems

#### • Management System Certifications

Iino Gas Transport (IGT) is a domestic and coastal (Asia) gas transport shipping company. It was established on April 1, 2007, by integrating a division of Iino Lines with Iino Group subsidiaries Hikari Marine, and Kinkai Sekiyu Ekika Gas Yuso. Kinkai Sekiyu Ekika Gas Yuso obtained an ISM Code Document of Compliance for its safety management system in August 1997, before IGT's inception. Though compliance with the ISM Code is not mandatory for domestic shipping, Hikari Marine voluntarily built a complying safety management system and received certification in October 2001. IGT has now taken over and continues to apply the safety management system to its domestic and ocean-going shipping.

Hikari Marine obtained ISO 9001:2000 certification in March 2004 and ISO 14001:2004 certification in March 2005. IGT assumed these certifications.

In November 2007, IGT issued a unified quality and environmental management manual encompassing marine transport services, which include ship chartering and operation and cargo booking services in addition to ship management services, and maintained its ISO 9001 and 14001 certifications. In April 2009, IGT was recertified as ISO 9001:2008-compliant.

IGT thus meets the requirements for consistent operation of a safety, quality, and environmental management system that covers the entire spectrum of marine transport services.

#### • Iino Gas Transport – Quality Management Program

Cat.	Objective	2009 target	2009 result		2010 target	Action plan
Quality	Comply with the Financial Instruments and Exchange Act	Implement companywide internal control	✓	Achieved target status	N/A	N/A
		Ensure that operations are conducted in accord with the defined business processes	✓	Achieved target status	N/A	N/A
	Improve customer satisfaction	N/A	N/A	N/A	Respond promptly to customer requests	• Promptly report and respond to customer requests, and follow-up after responding
		Zero customer complaints	✓	Achieved zero customer complaints (customer satisfaction rating: 91.8%)	Zero customer complaints	• Gather information through customer visits and satisfaction surveys, and analyze complaints • Gather information by attending cargo handling at Tokuyama Port and other means, and analyze complaints
		Maintain target of zero serious marine accidents	✓	Zero serious marine accidents	Maintain target of zero serious marine accidents	• Collect, study, and share cases of close calls (visit each vessel six or more times over the year)
	Improve crew competencies	BRM seminar attendance rate: 80% or more	✗	1H: 62% 2H: 68%	BRM seminar attendance rate: 80% or higher	• Crew to attend BRM seminars when in dry-dock, at training workshops, and pre- and post-voyage
		N/A	N/A	N/A	Increase number of crew who upgrade qualifications by 5	• Crew to acquire certifications via internal/external training and courses at Marine Technical College
	Improve fleet efficiency	Decrease voyage/engine-related problems by 5%	✓✗	1H: 5.9% increase 2H: 8.5% decrease	Decrease voyage/engine-related problems by 5%	• Discover and prevent problems early through TPM activities and dry-dock maintenance
	Improve system operating efficiency	N/A	N/A	N/A	Reduce issues related to each system function	• Collect and analyze problems/issues on a monthly basis and respond

## Safety and Environmental Management

### • Initiatives to Reduce Fuel Consumption

The amended Energy Conservation Act took effect on April 1, 2006. The act designates marine transportation carriers that operate fleets with aggregate gross tonnage in excess of 20,000t as “designated freight carriers” and mandates that they reduce their fuel consumption rate (fuel consumption required to transport a unit of cargo weight per unit of distance) by 1% annually.

At the end of June 2009, we tallied IGT’s fleet’s total fuel consumption for fiscal 2008 and reported to the Ministry of Land, Infrastructure, Transport and Tourism on its fuel consumption rate. As of March 2010, IGT’s fleet was smaller than in the previous year, but with a fleet weighing in at 24,000t in gross tonnage, IGT remained a designated freight carrier.

In fiscal 2010 and beyond, we will continue to implement the following measures to reduce our overall fuel consumption rate.

1. Reduce energy loss due to frictional resistance between hull and water
  - Sandblast hulls (smoothes rough exterior surfaces by removing old paint with high-pressure air jets carrying sand particles) One 749-gross-ton vessel scheduled to be sandblasted while in dry dock this fiscal year
2. Efficiently utilize fuel oil energy by managing fuel oil’s properties and research use of combustion-enhancing additives for fuel oil

- Ran validation tests on a 699-gross-ton vessel in fiscal 2009, currently verifying results
  - Maintain propulsion engines in optimal operating condition through maintenance programs
  - Plan to install fuel-improving equipment on a 999-gross-ton vessel and run validation tests in fiscal 2010
3. Improve propeller propulsion efficiency and reduce energy loss
    - Install fins that regulate currents
    - Grind propeller blades to smooth their surfaces
  4. Improve energy efficiency through efficient consumption of fuel oil
    - Operate vessels at economical speed as dictated by operating conditions
  5. Shift to efficient transport of cargoes
    - Improve fleet’s overall efficiency by replacing older vessels with new ones
    - Improve transport efficiency by planning and following through with a shift to larger vessels

We have an obligation to protect the environment and pass it on to future generations by achieving statutorily prescribed targets. IGT conducts its operations based on that recognition.

### • Quality and Environmental Policy

1. Fulfill customer requirements without fail and improve customer satisfaction
2. Bring the quality management system into compliance with regulatory requirements and continuously improve its effectiveness

3. Continuously make improvements to reduce environmental loads

### • Iino Gas Transport – Environmental Management Program

Cat.	Objective	2009 target	2009 result	2010 target	Action plan
Environment	Prevent marine pollution	Maintain target of zero oil spills	✗ One small scale oil spill	Achieve target of zero oil spills	• Increase safety awareness by visiting each vessel at least six times over the year
		Maintain target of zero waste dumped into the sea	✓ Achieved target of zero waste dumped into the sea	Maintain target of zero waste dumped into the sea	• Increase environmental protection awareness by visiting each vessel at least six times over the year
	Reduce waste	Reduce waste generated on vessels by 2%	✓ 1H: 28.1% decrease Full year: 13.4% decrease	Reduce waste generated on vessels by 2%	• Record and confirm volume of waste generated/landed • Issue guidance to reduce the carrying on board of packaging materials for food or equipment/supplies
		Reduce value of office supplies purchased by 1% (excl. paper)	✓ 1H: 25.2% decrease 2H: 15.3% decrease	Reduce value of office supplies purchased by 1% (excl. paper)	• Tally value of supplies purchased per month (excl. paper) at each office
	Reduce natural resource consumption	Reduce offices’ paper use by 1%	✓ Paper purchased: 1H: 10.2% decrease 2H: 48.5% decrease Use the flipside of used paper when copying documents for internal use; largely achieved	Reduce offices’ paper use by 1%	• Tally value of supplies purchased per month at each office • Use the flipside of used paper when copying documents for internal use; promote shift to paperless offices
		Reduce offices’ electricity use by 1%	✓ 1H: 1.6% decrease 2H: 12.8% decrease	Reduce offices’ electricity use by 1%	• Calculate monthly consumption at each office • Turn off unneeded lighting during lunchtime and nonworking hours
	Prevent air pollution	Reduce units of energy consumed 1%	✓ Full year: 2.8% decrease	Reduce units of energy consumed by 1%	• Monitor and analyze vessel operating status and main engine running status; reduce vessel speeds • Adopt equipment to improve fuel oil quality and new ship bottom coatings, and assess their effectiveness
		Reduce gas consumption rate by 1%	✗ 1H: 1.9% increase Full year: 3.1% increase	Reduce gas consumption rate by 1%	• Avoid idling, sudden acceleration, etc.
		Reduce CFC consumption by 1%	✓ 1H: 46.1% decrease 2H: 6.0% decrease	N/A	N/A
	Prevent health problems	Zero crew discharge/substitution due to illness or injury	✗ 1H: 4 crew members 2H: 6 crew members	Reduce crew discharge/substitution due to illness or injury by 50%	• Consistently use protective/safety equipment during work • Issue instructions for health / shipboard sanitary management upon vessel visits and on other occasions



# Safety and Environmental Accounting

## Basic Concepts Behind Safety and Environmental Accounting

### • Our Commitment to Safety and Environmental Accounting so far

Safety is the foundation of our business operations. Therefore, we believe that we must ascertain and manage safety-related costs, and we have been committed to the development of a safety accounting system based on our own ideas since 2001. Since fiscal 2003, we have been disclosing the aggregated results of our safety accounting data together with our environmental accounting data in the form of a Safety and Environmental Report each year.

### • Purposes of Safety and Environmental Accounting

Safety and environmental accounting has both internal and external purposes. Our goal is the balanced achievement of both. One of the internal purposes is to quantify the costs and effects of safety and environmental protection measures to enable us to implement desirable measures. Another internal purpose is to enhance employee awareness of safety measures and environmental conservation. Externally, we aim to organize comprehensive cost and effect information regarding safety and the environment into an easily accessible format and to provide information relevant to the wide-ranging areas of interest to stakeholders. We hope that the disclosure of the aggregated results of our safety and environmental accounting will help our stakeholders better understand our corporate philosophy and commitment to safety and the environment as well as the accounting data itself. We will strengthen our commitment to safety and the environment in response to opinions and comments from the public and fulfill our corporate social responsibility to realize a safer and more environmentally friendly society.

### • Concepts of Safety and Environmental Accounting

Our safety and environmental accounting system is designed on the concept of quality cost accounting. Quality cost accounting is a technique aimed at reducing costs of internal (quality defect losses incurred internally) and external failures (costs for dealing with quality defects of external origin) to zero by investing in quality evaluation and measures to prevent quality degradation and defects.




Our safety accounting system incorporates the concept of risk management into the quality cost accounting technique and allows separate aggregation of risk avoidance, prevention and mitigation costs and risk transfer and retention costs. The basic idea is to use the former set of costs in reducing the latter set of costs, which are regarded as losses.

Our environmental accounting system incorporates environmental quality cost accounting (an environmental version of quality cost accounting) to separately aggregate environmental protection and assessment costs and environmental losses to individual enterprises and society. Similar to safety accounting, the method aims to use the former set of costs to reduce the latter. Some of the items we include in environmental accounting aggregates are based on the Ministry of the Environment's Environmental Accounting Guidelines.




### • Safety and Environmental Accounting Framework

Based on the concepts above, safety and environmental accounting data are aggregated separately for the following four entities: Shipping Business, Real Estate Business, Head Office Administrative Division, and the entire Iino Group.

#### Safety Accounting Framework

Activity type	Activities for reducing accident occurrence rate		Activities for minimizing losses from activities	Response activities when accidents occur
Relevance to risk management	Risk avoidance costs	Risk prevention costs	Risk reduction costs	Risk transfer costs Risk reduction costs
Cost item categories	Risk avoidance activity costs	Accident prevention activity costs • Employees' occupational health and safety costs • Human resources improvement costs (education and training) • Safety promotion activity costs • Safety facility and equipment costs • Building and vessel safety measure costs	Accident loss minimization costs • Employees' occupational health and safety costs • Human resources improvement costs (education and training) • Safety promotion activity costs • Safety facility and equipment costs • Building and vessel safety measure costs	Safety losses incurred ex ante: Insurance premiums (costs for risk transfer by insurance) Safety losses incurred ex post: Accident response costs, i.e., insurance deductibles (risk retention costs)
Desirable direction	 Increase costs while the cost-benefit ratio is acceptable			 Reduce costs through safety measures
	Administrative and indirect costs	Costs for supporting safety activities (costs incurred in association with risk avoidance, prevention, and mitigation)	 Increase costs while the cost-benefit ratio is acceptable	

#### Environmental Accounting Framework

Cost category	Costs for preventing and reducing environmental losses	Losses to Iino due to inadequate environmental protection measures (i.e., should be reduced by improving environmental protection)	Losses to society and communities due to inadequate environmental protection measures
Relevance to environmental quality cost accounting	Environmental protection and environmental assessment costs	Internally incurred environmental losses	Externally incurred environmental losses
Cost/loss item categories	Business area costs Upstream and downstream costs Management activity costs R & D costs Social activity costs	Inefficient costs (input): Energy and resources purchase costs Inefficient costs (output): Costs for disposal of waste materials, etc. Environmental remediation costs Positive factors: Economic benefits associated with environmental protection activities	Environmental load (input): Energy and resource consumption Environmental load (output): Environmentally detrimental emissions
Desirable direction	 Increase costs while the cost-benefit ratio is acceptable	 Reduce overall or unit costs	 Reduce environmental impacts

\* Items in green are cost items included based on the Ministry of the Environment's Environmental Accounting Guidelines.

# Safety and Environmental Accounting

## Detailed Aggregation Standards for Safety and Environmental Accounting (key fundamentals of safety and environmental accounting)

### • Safety and Environmental Accounting Aggregation Criteria

#### (1) Coverage period: April 1, 2009 – March 31, 2010 (fiscal 2009)

(2) Scope of aggregation: Iino Lines, Iino Marine Service, Iino Building Technology, and 24 flag-of-convenience (FOC) companies

(3) Principle for setting aggregation scope:

The scope of aggregation covers Iino Lines as the compiler of the report, its main shipping subsidiary, Iino Marine Service (ship management), Iino Gas Transport, a gas transport shipping company in the domestic coastal seas, Iino's main real estate subsidiary, Iino Building Technology (building management), and FOC companies in which our Shipping Business Division has ownership stakes.

(4) Principle for consolidated environmental accounting:

Accounting data for each of the companies (or entities) included in the aggregation scope are produced separately and then totaled. To avoid double counts, intra-group transactions between these companies are not included.

### • Aggregation Standards for Monetary Value Data

#### Common Elements

(1) The Iino Group's Safety and Environmental Accounting Guidelines stipulate standards for aggregating monetary quantitative data and physical quantitative data. The Guidelines were established based on the Environmental Management Accounting Technique Workbook (Ministry of Economy, Trade and Industry), Environmental Accounting Guideline 2005 (Ministry of the Environment), and Environmental Accounting Guidelines for the Construction Industry 2002 (coauthored by three construction industry associations). Note that because our Guidelines basically adopt an objective standards-based approach, any accounting item for which no specified objective standard exists is accounted for based on the standards for other items.

(2) Our safety and environmental accounting covers investments and costs as cash flows. Labor costs are included in costs. Since calculations are cash flow based, depreciation costs are excluded from costs.

#### Shipping Business

##### Common Elements

- The vessel operation costs of Iino Lines and Iino Gas Transport (fuel costs, port charges, etc.) and the vessel costs for the Group-owned vessels managed by Iino Marine Service, (repair costs, vessel equipment and article costs, etc.) are included in safety and environmental accounting.
- Only vessel costs attributable to the owner's responsibility are included. In other words, only our share of costs for jointly owned vessels is included (i.e., proportionate to our ownership stakes in the vessels).
- As for vessel equipment repair costs and vessel equipment and article costs, unless otherwise specified, only cost items exceeding the criteria specified by applicable international agreements and domestic laws and regulations are included.
- Investments and costs associated with docked and newbuilding vessels are not included. (Safety and assumed environment-related costs included in such investments and costs are not included because it is difficult to separate the safety and environment-related portions from the rest.)

#### Safety accounting

(1) As for risk avoidance activity costs, the costs of actions taken for vessels operated by Iino Lines and Iino Gas Transport according to internal rules are included as shown in the table on the next page.

#### Environmental accounting

(1) Fuel costs (inefficient costs (input)) for vessels operated by Iino Lines and Iino Gas Transport are included.

#### Real Estate Business

##### Common Elements

- Only investments and costs attributable to the building owner's responsibility are included. Tenants' shares of costs are not included (the same applies to physical quantitative data). Note that for tenant work undertaken by us as a construction contractor, only our share of the costs are included.
- Only our share of costs for jointly owned buildings is included (i.e., proportionate to our ownership stakes in the buildings).
- Maintenance-related costs are also included. This is because the total risks and environmental loads can vary depending on maintenance-related costs.
- Costs are recognized based on work completion dates.

#### Safety accounting

(1) To complement the existing objective standards, facilities and equipment used in buildings are classified to determine the cost allocation. As for activities for preventing facility- and equipment-related risks, all facilities and equipment are risk-evaluated to determine whether risk prevention activities are required.

#### Environmental accounting

- Given the peculiar nature of the business, costs for reducing the environmental impact on society generated inside buildings are included.
- Green purchasing costs are excluded from upstream and downstream costs. This is because there were no differences between the prices of green and non-green products.
- Environmental remediation costs include pollution load levies stipulated by the Act on Pollution-Related Health Damage Compensation and other Measures and contributions to the Environment Restoration Fund through the purchase of Construction Manifest Slips.
- Costs of recycling outsourced to waste disposal companies that are impossible to break down are posted not as resource recycling costs but as internally incurred environmental losses.

### • Aggregation Standards for Physical Quantitative Data

#### Common Elements

Our safety and environmental accounting system is designed to monitor the total quantities of risks and environmental loads. Year-on-year differences are therefore not calculated. Neither are economic benefits. The effective periods for investments are not taken into consideration.

#### Shipping Business

- The physical quantitative data on the vessels operated by Iino Lines and Iino Gas Transport are included. Note that quantities of waste from shipboard activities generated by group-owned vessels managed by Iino Marine Service are included.
- The formula and conversion factors used to determine physical quantitative data are as follows:  
GHG emissions from fuel consumption (CO<sub>2</sub> equivalent)  
CO<sub>2</sub> = Grade A or C heavy oil consumption in weight terms + specific gravity<sup>a</sup> x unit calorific value x emission factor x global warming potential  
CH<sub>4</sub> or N<sub>2</sub>O = Grade A or C heavy oil consumption in weight terms + specific gravity<sup>a</sup> x emission factor x global warming potential

a. Specific gravities are as measured by us.

	Carbon dioxide (CO <sub>2</sub> )		Methane (CH <sub>4</sub> )	Dinitrogen monoxide (N <sub>2</sub> O)
	Unit calorific value	Emission factor	Emission factor	Emission factor
Grade A heavy oil	39.1 MJ/ℓ	0.0693kg CO <sub>2</sub> /MJ	0.26kg CH <sub>4</sub> /kℓ	0.074kg N <sub>2</sub> O/kℓ
Grade C heavy oil	41.7 MJ/ℓ	0.0716kg CO <sub>2</sub> /MJ	0.27kg CH <sub>4</sub> /kℓ	0.079kg N <sub>2</sub> O/kℓ
Global warming potential	1		21	310

(N<sub>2</sub>O emissions from Grade C heavy oil: Act on Promotion of Global Warming Countermeasures; Other emissions: Guidelines for Method of Calculating Emissions of Greenhouse Gas from Businesses (Draft ver. 1.6), Ministry of the Environment)

#### NOx emissions

NOx = Grade A and C heavy oil consumption combined x emission factor Emission factor: 87g NOx / kg  
(Source: Research report on the impacts of VOC emissions from ships on the global environment and prevention technologies, Ocean Policy Research Foundation)

#### SOx emissions

SOx (SO<sub>2</sub>) = Grade A or C heavy oil consumption in weight terms x fuel sulfur content<sup>b</sup> x 32 / 16<sup>c</sup>

b. Sulfur content is as measured by us.

c. The term 32 / 16 in the formula is the molecular mass of SO<sub>2</sub> / sulfur's atomic mass.

#### Real estate business

(1) The formula and conversion factors used to determine physical quantitative data are as follows:

GHG emissions from purchased electricity  
CO<sub>2</sub><sup>d</sup> = Purchased electricity volume x emission factor Emission factor, daytime: 0.403kg / kWh, nighttime: 0.354kg / kWh (Source: Tokyo Prefecture Greenhouse Gas Discharge Outlook Confirmation Report)

d. CH<sub>4</sub> and N<sub>2</sub>O emissions from purchased electricity were negligible and so not calculated.

GHG (CO<sub>2</sub>), NOx, SOx emissions through heavy oil and city gas consumption  
CO<sub>2</sub> = Grade A heavy oil or city gas consumption in volume terms x unit calorific value x emission factor x global warming potential

NOx = Grade A heavy oil or city gas consumption in volume terms x emission factor

SOx (SO<sub>2</sub>) = Grade A heavy oil consumption in volume terms x specific gravity<sup>e</sup> x fuel sulfur content<sup>f</sup> x 32/16<sup>g</sup>

e. Specific gravities are as measured by us.

f. Sulfur content is as measured by us.

g. The term 32 / 16 in the formula is the molecular mass of SO<sub>2</sub> / sulfur's atomic mass.

	Carbon dioxide (CO <sub>2</sub> )		Nitrogen oxide (NOx)
	Unit calorific value	Emission factor	Emission factor
Grade A heavy oil	39.1 MJ/ℓ	0.0693kg CO <sub>2</sub> /MJ	2.10 kg /kℓ
City gas	41.1 MJ/m <sup>3</sup>	0.0506kg CO <sub>2</sub> /MJ	0.00171g/m <sup>3</sup>

(CO<sub>2</sub> emissions from Grade A heavy oil: Guidelines for Method of Calculating Emissions of Greenhouse Gas from Businesses (Draft ver. 1.6), Ministry of the Environment)

CO<sub>2</sub> emissions from Grade C heavy oil: Act on Promotion of Global Warming Countermeasures

NOx emissions: Environmental Activity Evaluation Program 2002 (Eco Action 21), Ministry of the Environment)

# Safety and Environmental Accounting

## Safety Accounting Statements for the Shipping and Real Estate Businesses (fiscal 2009)

### • Safety Accounting Statement for the Shipping Business

'000 yen

Cat.	Activities for reducing risk and accident rates				Activities for minimizing losses from accidents		Response activities when accidents occur	
Item	Avoidance costs		Prevention costs		Mitigation costs		Retention and transfer costs	
Shipping Business	Risk avoidance activities	139,867	Occupational health and safety	943	Occupational health and safety	0	Safety losses incurred ex ante	1,119,400
	Kanmon Straits, Kurushima Straits: Avoid passing through the straits, or drop anchor to avoid doing so at night	1,142	Health checkups for seamen (before, during and after boarding)	943	Asbestos checkups (former seamen)	0	Human loss reduction measures:	
			Activities for enhancing personnel's performance	51,792	Activities for enhancing personnel's performance	1,755	Health insurance premiums (on-shore staff)	25,494
	Chemical tankers	0	Recruit and retain excellent seamen	27,455	Tabletop drills (emergency response drills)	1,755	Workers' compensation insurance premiums (on-shore staff)	1,761
			Oil tankers	24,337			Seamen's insurance premiums	32,051
	Anchoring and sheltering from typhoons	138,725	Safety activities (accident prevention)	1,551,989	Safety activities (loss reduction)	—	Comprehensive workers' compensation insurance (for reserve crews)	69
			Preventing collisions and groundings:				Material loss reduction measures:	
	Gas tankers	0	Pilotage and towage fees	1,512,609			Marine insurance premiums, etc.	526,398
			Subscriptions to weather information services	5,267			P&I insurance	533,627
			Prevention of accidents related to cargo handling:				Safety losses incurred ex post	78,699
		Injection of inert gas (N <sub>2</sub> )	22,523			Material loss reduction measures:		
		Superintendent safety inspections to ensure safe cargo handling	11,590			Insurance deductibles	78,384	
		Safety equipment for preventing accidents	9,084	Safety equipment for reducing losses	1,232	Costs for dealing with accidents	315	
		Preventing collisions and groundings:		Emergency Technical Assistance Service (ETAS)	1,232			
		Scheduled maintenance software	—					
		Electronic Chart Display and Information System (ECDIS)	—					
		Mooring lines (more than no. of drums)	—					
		Course recorder related	606					
		Measuring instrument calibration, etc.	8,478					
		Anti-piracy measures:						
		Xenon searchlights	—					
		<b>Subtotal</b>	<b>1,613,808</b>	<b>Subtotal</b>	<b>2,987</b>	<b>Subtotal</b>	<b>1,198,099</b>	
Administrative and indirect costs	Support for safety promotion activities					53,785		
	Maintenance and operation of safety management systems, etc., based on ISM Code, ISPS Code, and ISO 9001					3,149		
	Internal audits, major oil inspections, Iino Vessel Inspections					37,648		
	Safety management contracted out					5,027		
	Safety Management Committee, etc.					6,474		
		Safety associations					1,487	
		<b>Subtotal</b>					<b>53,785</b>	

### • Safety Accounting Statement for the Real Estate Business

'000 yen

Cat.	Activities for reducing risk and accident rates				Activities for minimizing losses from accidents		Response activities when accidents occur	
Item	Avoidance costs		Prevention costs		Mitigation costs		Retention and transfer costs	
Real Estate Business			Occupational health and safety	3,105	Occupational health and safety	0	Safety losses incurred ex ante	27,134
			Employee health management	2,127	Placement of first aid stations	0	Human loss reduction measures:	
			Safety and Health Committees (incl. non-statutory committees)	978			Health insurance premiums, etc.	14,601
			Activities for enhancing personnel's performance	1,482	Activities for enhancing personnel's performance	1,661	Workers' compensation insurance premiums, etc.	2,801
			Crime prevention and security education and training	1,482	Disaster prevention education for employees	619	Material loss reduction measures:	
					Accident simulation training	602	Other insurance (incl. property damage insurance)	9,732
					Comprehensive disaster drills for buildings, etc.	440		
			Safety activities (accident prevention)	111,903	Safety activities (loss reduction)	2,738	Safety losses incurred ex post	128
			Fire prevention and security activities (guarding and patrolling)	111,145	Maintenance and replacement of disaster-prevention equipment	2,738	Human loss reduction measures:	
			Disinfection and sanitation	718			Medical expenses paid by the company	128
		Safety audits; other safety and health activities	40			Material loss reduction measures:		
		Safety equipment for preventing accidents	124,075	Safety equipment for reducing losses	22,224	Costs for dealing with accidents	0	
		Safety and security equipment (safety and health; crime prevention)	88,589	Anti-disaster, firefighting and evacuation facilities	17,219			
		Maintenance of hazardous facilities	30,505	Facilities for reducing electrical accidents and damage	5,005			
		Prevention of water leakages and other accidents	4,981					
		Building and building-frame safety		Building and building-frame safety	0			
		Outer-wall anti-exfoliation works, etc.	0	Fireproofing works	0			
		<b>Subtotal</b>	<b>240,565</b>	<b>Subtotal</b>	<b>26,623</b>	<b>Subtotal</b>	<b>27,262</b>	
Administrative and indirect costs	Support for safety promotion activities					1,809		
	Administrative activities, e.g., promotion of safety management and safety-status monitoring					1,216		
	Indirect activities, e.g., participation in security industry associations					491		
	Community and social activities, e.g., community patrols					102		
		<b>Subtotal</b>					<b>1,809</b>	

# Safety and Environmental Accounting

## Environmental Accounting Statements for the Shipping and Real Estate Businesses (fiscal 2009)

### • Environmental Accounting Statement for the Shipping Business

'000 yen

Cat.	Costs for preventing and reducing environmental losses		Costs that should be reduced by improving environmental protection activities		Losses to society and communities due to inadequate environmental protection measures		
Item	Environmental preservation and assessment costs		Internally incurred environmental losses		Externally incurred environmental losses		Unit
Shipping Business	Business area costs	69,308	Inefficient costs (input)	11,557,598	Environmental load (input)		
	Global environmental protection costs: Marine pollution prevention		Fuel costs (A and C heavy oils)	11,557,598	Fuel inputs (A and C heavy oils)	295,400	t
	Cargo oil and fuel oil tank level gauge related	560					
	Bilge separator related	1,695	Environmental loads (output)	17,585	Environmental load (output)		
	Sewage treatment equipment related	0			Greenhouse gas emissions (CO <sub>2</sub> equivalent)	924,800	t
	Oil fences and oil spill-treating agents and equipment	6,367			Air pollutant emissions (NO <sub>x</sub> )	25,700	t
	Oil fences for use during cargo handling	18,830			Air pollutant emissions (SO <sub>x</sub> )	18,000	t
	Oil emission monitoring/control equipment	5			Quantity of daily-life waste from vessels		
	Anticorrosion tape	23	Costs of disposal of daily-life waste unloaded from vessels (mainly plastics)	2,383	• Plastics, plastic sheeting, etc.	494.9	m <sup>3</sup>
	Global environmental preservation costs: Marine ecosystem integrity		Costs of unloading and disposing of sludge and slop when docked	8,499	• Bottles, cans, etc.	444.8	m <sup>3</sup>
	Repainting of ship bottoms with tin-free paint	41,828	Costs of unloading and disposing of slop from hold cleaning for cargo changes (chemical)	6,702	• Food waste	275.6	m <sup>3</sup>
	Upstream and downstream costs	—					
	Management activity costs	11,962	Environmental remediation costs	—			
	ISO 14001 certification and maintenance	654					
	Environmental education seminars (for Japanese crews)	2,355	Positive factors: Economic benefits associated with environmental preservation activities	—			
Acquisition and maintenance of certifications	8,953	Revenue from the sale of valuable resources associated with waste disposal	—				
R&D costs	—						
Social activity costs	—						
	Subtotal	81,270	Subtotal	11,575,183			

### • Environmental Accounting Statement for the Real Estate Business

'000 yen

Cat.	Costs for preventing and reducing environmental losses		Costs that should be reduced by improving environmental protection activities		Losses to society and communities due to inadequate environmental protection measures		
Item	Environmental preservation and assessment costs		Internally incurred environmental losses		Externally incurred environmental losses		Unit
Real Estate Business	Business area costs	290,208	Inefficient costs (input)	165,794	Environmental load (input)		
	Pollution prevention costs:		Electricity purchases	112,128	Electricity	11,137,700	kWh
	Measures to prevent dust drift and asbestos emissions	1,527	Gas purchases	31,271	Daytime electricity	7,543,200	kWh
	Odor and water-contamination prevention	4,249	Heavy oil purchases	3,312	Nighttime electricity	3,594,500	kWh
	Global environmental protection costs:		Potable water usage charges	19,083	City gas	5,95,000	m <sup>3</sup>
	Energy efficient building management	148,998	Environmental load (output)	25,816	Grade A heavy oil	58.6	kℓ
	Monitors and controllers	4,279			Water	52,400	m <sup>3</sup>
	Adjustment or inverterization of equipment	125,415	Non-industrial waste disposal costs	4,976	Potable water usage	45,700	m <sup>3</sup>
	Use of hybrid vehicles	391	Industrial waste disposal costs (incl. waste from building construction)	2,986	Well and spring water usage	6,700	m <sup>3</sup>
	Use of hybrid vehicles	391	Sewage treatment costs	17,854	Environmental load (output)		
	Resources recycling costs:				Greenhouse gas emissions from electricity purchases (CO <sub>2</sub> )	4,300	t
	Cost of recycling contracted out	213			Greenhouse gas emissions from fuel use (CO <sub>2</sub> )	1,400	t
	Purchase of Manifest Slips	29			Air pollutant emissions (NO <sub>x</sub> )	1,140.5	kg
	Recycled water charges	5,107			Air pollutant emissions (SO <sub>x</sub> )	99.7	kg
	Upstream and downstream costs	0	Environmental remediation costs	0	Non-industrial waste disposal quantity	218.3	t
Management activity costs	15,863	Contributions to environment restoration funds and pollution levies	0	Industrial waste disposal quantity (incl. waste from building construction)	94.7	t	
Environmental management system operation and information disclosure	518	Positive factors: Economic benefits associated with environmental preservation activities	0	Industrial waste disposal quantity (property abandoned by tenants)	0.0	t	
Environmental load measurement	11,063	Revenue from the sale of valuable resources associated with waste disposal	0	Sewage discharge	60,600	m <sup>3</sup>	
Restoration/maintenance of vegetation around company's locations	4,282			Reduced water quantity (discharge into air, etc.)	11,500	m <sup>3</sup>	
R&D costs	0						
Social activity costs	0						
	Subtotal	306,071	Subtotal	191,610			

# Safety and Environmental Accounting

## Head Office and Company-wide Safety Accounting Statements (fiscal 2009)

### • Head Office Safety Accounting Statement

'000 yen

Cat.	Activities for reducing risk and accident rates				Activities for minimizing losses from accidents		Response activities when accidents occur		
Item	Avoidance costs		Prevention costs		Mitigation costs		Retention and transfer costs		
Head Office			Occupational health and safety	8,368	Occupational health and safety	1,603	Safety losses incurred ex ante	107,294	
			Creation of hospitable work environments	3,008	Placement of first aid stations	1,603	Human loss reduction measures:		
			Employee health management	4,800			Health insurance premiums, etc.	80,701	
			Health committees (incl. non-statutory committees)	560			Workers' compensation insurance premiums, etc.	6,990	
			Activities for enhancing personnel's performance	—	Activities for enhancing personnel's performance	542	Material loss reduction measures:		
					Disaster drills in buildings	542	Other insurance (incl. property damage insurance)	19,603	
			Safety activities (accident prevention)	287	Safety activities (loss reduction)	1,676	Safety losses incurred ex post	661	
			Fire prevention and security activities:		Disaster preparedness activities:		Human loss reduction measures:		
			Better communication with law enforcement	174	Better communication with fire departments	82	Medical expenses paid by the company	661	
			Information systems:		Information systems:				
		Security enhancement activities	113	Activities to ensure system/data backups	1,594				
		Safety equipment for preventing accidents	632	Safety equipment for reducing losses	—				
		Information systems:							
		Security enhancement hardware/software	632						
		Building and building-frame safety	—	Building and building-frame safety	—				
		<b>Subtotal</b>		<b>Subtotal</b>	<b>9,287</b>	<b>Subtotal</b>	<b>3,820</b>	<b>Subtotal</b>	<b>107,955</b>
Administrative and indirect costs	Support for safety promotion activities					6,853			
	Operation of safety-related management systems					5,128			
	Safety-related committees					1,725			
	<b>Subtotal</b>					<b>6,853</b>			

### • Company-wide Safety Accounting Statement

'000 yen

Cat.	Activities for reducing risk and accident rates				Activities for minimizing losses from accidents		Response activities when accidents occur		
Item	Avoidance costs		Prevention costs		Mitigation costs		Retention and transfer costs		
Company-wide total	Risk avoidance activities	139,867	Occupational health and safety	12,416	Occupational health and safety	1,603	Safety losses incurred ex ante	1,253,829	
	Avoidance of passage through straits, typhoons and other hazards (ships)	139,867	Creation of hospitable workplace and work environments	3,008	Placement of first aid stations	1,603	Human loss reduction measures:		
			Employee health management	7,870	Asbestos checkups	0	Health insurance premiums, etc.	120,796	
			Safety and health committees	1,538			Workers' compensation insurance premiums, etc.	11,552	
			Activities for enhancing personnel's performance	53,274	Activities for enhancing personnel's performance	3,356	Seamen's insurance premiums	32,120	
			Recruit and retain excellent seamen	27,455	Disaster prevention education for employees	619	Material loss reduction measures:		
			Safe navigation seminars and training (for crews)	24,337	Tabletop drills and accident simulation training	1,755	Marine insurance and P&I insurance	1,060,025	
			Crime prevention and security education and training	1,482	Disaster drills for buildings	982	Other insurance (incl. property damage insurance)	29,335	
			Safety activities (accident prevention)	1,664,180	Safety activities (loss reduction)	4,414	Safety losses incurred ex post	79,488	
			Preventing collisions and groundings (ships)	1,551,989	Maintenance and replacement of disaster-prevention equipment	2,738	Human loss reduction measures:		
			Preventing cargo handling-related accidents (ships)	0	Better communication with fire departments	82	Medical expenses paid by the company	789	
			Accident and fire prevention and anticrime/security activities in buildings	111,903	Information system backups	1,594	Material loss reduction measures:		
			Information system security enhancement	287			Deductible of insurance	78,384	
			Safety equipment for preventing accidents	133,791	Safety equipment for reducing losses	23,456	Costs for dealing with accidents	315	
			Equipment for preventing collisions and groundings (ships)	9,084	Anti-disaster, firefighting and evacuation facilities	17,219			
		Anti-piracy facility and equipment (vessels)	0	Facilities for reducing electrical accidents and damage	5,005				
		Accident-prevention and safety facilities for buildings	124,075	Emergency Technical Assistance Service (ships)	1,232				
		Information system security enhancement hardware/software	632						
		Fixed-asset safety (ships and buildings)	0	Fixed asset safety (ships and buildings)	0				
		Outer-wall anti-exfoliation works (buildings)	0	Fireproofing (buildings)	0				
		<b>Subtotal</b>		<b>Subtotal</b>	<b>1,863,661</b>	<b>Subtotal</b>	<b>32,828</b>	<b>Subtotal</b>	<b>1,333,317</b>
Administrative and indirect costs	Support for safety promotion activities					86,277			
	Maintenance and operation of safety management systems					9,281			
	Safety-related ship management activities (vessel inspections, etc.)					68,385			
	Safety-related committees					5,321			
	Indirect activities, e.g., memberships or participation in industrial organizations, etc.					3,188			
	Community and social activities, e.g., community patrolling					102			
		<b>Subtotal</b>			<b>86,277</b>				



# Safety and Environmental Accounting

## Head Office and Company-wide Environmental Accounting Statements (fiscal 2009)

### • Head Office Environmental Accounting Statement

'000 yen

Cat.	Costs for preventing and reducing environmental losses		Costs that should be reduced by improving environmental protection activities		Losses to society and communities due to inadequate environmental protection measures		
Item	Environmental preservation and assessment costs		Internally incurred environmental losses		Externally incurred environmental losses		Unit
Head Office	Business area costs	633	Inefficient costs (input)	7,795	Environmental load (input)		
	Resources recycling costs:		Electricity purchases	7,795	Electricity	338,900	kWh
	Resources recycling costs:	633	Environmental loads (output)	489	Environmental load (output)		
	Purchase of Manifest Slips:	6	Non-industrial waste disposal costs	445	GHG emissions from electricity purchases (CO <sub>2</sub> )	136.6	t
	Upstream and downstream costs	2,172	Industrial waste disposal costs	44	Non-industrial waste disposal quantity	56.7	t
	Green procurement	2,172			Industrial waste disposal quantity	0.3	t
	Management activity costs	12,060	Environmental remediation costs	—			
	ISO 14001 certification and maintenance	10,257	Positive factors: Economic benefits associated with environmental preservation activities	—			
	Safety and Environment Committee	1,803	Revenue from the sale of valuable resources associated with waste disposal	—			
	R&D costs	—	Subtotal	8,284			
Social activity costs	—						
Subtotal	14,865						

### • Company-wide Environmental Accounting Statement

'000 yen

Cat.	Costs for preventing and reducing environmental losses		Costs that should be reduced by improving environmental protection activities		Losses to society and communities due to inadequate environmental protection measures		
Item	Environmental preservation and assessment costs		Internally incurred environmental losses		Externally incurred environmental losses		Unit
Company-wide total	Business area costs	360,149	Inefficient costs (input)	11,731,187	Environmental load (input)		
	Pollution prevention costs:	5,776	Electricity purchases	119,923	Electricity	11,476,600	kWh
	Measures to prevent dust drift and asbestos emissions	1,527	Gas purchase	31,271	City gas	595,000	m <sup>3</sup>
	Odor and water-contamination prevention	4,249	Heavy oil purchases (A and C heavy oils)	11,560,910	Heavy oil (A and C heavy oils)	295,400	t
	Global environmental protection costs:	348,392	Potable water usage charges	19,083	Water	(347,100)	kℓ
	Global warming prevention	279,083	Environmental load (output)	43,889	Water	52,400	m <sup>3</sup>
	Marine pollution prevention	27,481	Costs of disposal of daily-life waste unloaded from vessels	2,383	Potable water usage	45,700	m <sup>3</sup>
	Marine ecosystem conservation	41,828	Costs of unloading and disposing of sludge and slop (ships)	15,201	Well and spring water usage	6,700	m <sup>3</sup>
	Resources recycling costs:	5,981	Non-industrial waste disposal costs	5,421	Greenhouse gas emissions (CO <sub>2</sub> equivalent)	930.600	t
	Recycling and proper treatment of waste	874	Industrial waste disposal costs (incl. waste from building construction)	3,030	Air pollutant emissions (NO <sub>x</sub> )	26,800	t
	Recycled water charges	5,107	Sewage treatment costs	17,854	Air pollutant emissions (SO <sub>x</sub> )	18,100	t
	Upstream and downstream costs	2,172	Environmental remediation costs	0	Quantity of daily-life waste from vessels	1,215.3	m <sup>3</sup>
	Green procurement	2,172	Contributions to the Environment Restoration Fund (Construction Manifest Slips)	0	Non-industrial waste disposal costs	275.0	t
	Management activity costs	39,884	Positive factors: Economic benefits associated with environmental preservation activities	—	Industrial waste disposal costs (incl. waste from building construction)	95.0	t
	Maintenance and operation of environmental management systems	11,428	Revenue from the sale of valuables associated with waste disposal	—	Industrial waste disposal quantity (property abandoned by tenants)	0	t
	Cost of acquiring and maintaining certifications	11,063	Subtotal	11,775,076	Sewage treatment costs	60,600	m <sup>3</sup>
	Environmental load measurement	4,282			Reduced water quantity (discharge into air, etc.)	11,500	m <sup>3</sup>
	Restoration/maintenance of vegetation around company's locations	2,355					
	Environmental education seminars	1,803					
	Safety and Environment Committee	8,953					
R&D costs	—						
Social activity costs	—						
Subtotal	402,205						

## Engaging our Shipboard Workforce

### Shipboard Personnel Training Program

We consider the education and training of crews extremely important in the pursuit of safe operations. In addition to the education and training required by law and regulations, we voluntarily conduct other education and training to enhance safety (see chart below).

We also conduct practical training for captains and officer-class crew boarding ultra large crude tankers (above 300,000 dwt) or LNG tankers for the

first time. Specifically, under the guidance of experienced personnel, they receive on-the-job training (OJT) that runs through operations conducted on the return leg of actual voyages.

Through training on ships and study onshore that combines practical skills with theoretical knowledge, we provide ongoing professional development for veteran crew members and early-stage development for younger employees.

(Blue for navigation officer, brown for engineer, and black for both)

	Seamen's competency certificates and qualifications				Education and training (supplement for shipboard OJT)	
Captain and chief engineer	First seaman (navigation)	First seaman (engine)	Type A hazardous materials control officer	Sanitary supervisor certificate	Deck work control officer seminar Ship handling simulator LPG ship seminar / LNG ship seminar	Engine room general simulator (electronic control and diesel plant) Crude oil tanker navigation (engine) practical training
Chief officer and first engineer	Second seaman (navigation)	Second seaman (engine)			Deck maintenance work seminar Navigation instrument operation work seminar Crude oil tanker simulator Maritime English seminar	Engine room general simulator (basic control and follow-up) Engine maintenance work training Electrical training / auxiliary equipment training
Second officer and engineer	Third seaman (navigation)	Third seaman (engine)			Navigation officer practical training Radar/ARPA simulator GMDSS simulator ECDIS seminar BRM (Bridge Resource Management) seminar	General engine room simulator Welding (gas and arc) training Lathe skill training / boiler training Hydraulic circuit training ERM (Engine Resource Management) seminar
Third officer and engineer						
Freshman					In-house new employee education / seamen's college freshman education	

### Training for Foreign Crew

At IMS Korea (Busan, Korea) and Pobar Marine Services (Manila, Philippines), crew manning firms that work exclusively for Iino, we improve the technical skills of crew members based on our training and education system for Iino Group crews, supplementing it with our unique training program and external training institutions.

At a training facility established at IMS Korea in 2007, we develop English language abilities and conduct computer simulation-based

training.

At Pobar Marine Services, we use the company's own computer simulation facilities to simulate the loading and unloading of tanker fleets and engine components.

To add to the training conducted by crew manning firms, we send instructors twice annually from Tokyo to South Korea, the Philippines, and Myanmar for short-term safety training courses.



English class at IMS Korea



Computer simulator training at POBAR

#### Short-term safety training course – no. participants

Region	FY 2006	FY 2007	FY 2008	FY 2009
Japan	25	32	22	28
South Korea	80	75	37	68
Philippines	100	102	99	101
Myanmar	45	43	31	45

### Showing Appreciation to Crew Members' Families for their Support

For oceangoing shipping crews, stepping aboard a vessel often means leaving home for a long time, which places a heavy burden on families left behind. All oceangoing shipping crews share this hardship regardless of nationality. The Iino Group endeavors to show appreciation for the crews and their families and to reduce the peculiar burden of oceangoing work.

At Pobar Marine Services (Manila) and IMS Korea (Busan), we invite crews and their families to an annual end-of-year party to show our appreciation for their ongoing support. In 2009, IMS Korea's party

on November 27 attracted 400 people. Pobar Marine Services' party on December 3 attracted 650 people, who gathered around tables in buffet style and enjoyed a cake-cutting ceremony, song and dance, and other festivities.



Party at Pobar Marine Services (Manila)

## Engaging our Onshore Workforce

### Onshore Personnel Training Program

Iino Lines' personnel system for onshore employees is based on (i) promoting development of human resources and (ii) raising motivation by clarifying the reasons behind employee evaluations and treatment. Our human resource development system combines on-

and off-the-job training and self-development (see chart below). Our "cafeteria plan" program gives employees the freedom to select programs from areas most relevant to them, fostering individual motivation to study and strive.

Trainee category		Off-JT			OJT	Self-development		
Class and rank	Year	Training by level	Skill-up training	Other training		Incentive system for officially recognized qualifications	Recommended book registration system	Correspondence course financial support
M-3		Senior administrator training			OJT based on divisional HR development programs			
M-2								
M-1		New managerial staff training		Overseas short-term training				
S-3		Leadership training	Skill-raising Presentation skills Logical thinking, etc.	English training ISO training				
S-2	4th year	Mid-career training						
S-1	3rd year	Practical boarding training	Practical training	External training relevant to each division				
	2nd year							
	After six months	Follow-up training						
	New employee	New employee training Agent training						
Prospective recruit		Pre-recruit training PC skills training						

### Industrial Safety and Health

Iino Lines' Personnel Group leads efforts to protect and improve the health and safety of onshore employees. They are legally required to receive annual health checkups, but we provide them twice a year. We also set aside meeting rooms on the second Friday of every month to offer individual consultations with occupational physicians free of charge. Employees previously made appointments via our Personnel Group, but to protect their privacy, they can now book directly via the internal phone system. Iino Marine Service also provides biannual health checkups

to employees. Iino Building Technology voluntarily maintains a safety and health committee, despite not being legally required to do so because it has less than 50 employees in the workplace. The committee meets monthly and works to prevent occupational accidents. Nighttime personnel undergo biannual health checkups, and other personnel undergo legally required health checkups once a year with the option to add checkup components that are not legally required.

#### Work-related accidents/illness cases recognized for compensation

Iino Lines (parent only)<sup>a</sup> (no. cases)

Year	'05	'06	'07	'08	'09
Deaths	0	0	0	0	0
Injuries	2	2	0	2 <sup>b</sup>	2 <sup>b</sup>
Diseases	0	0	0	0	0
Total	2	2	0	2 <sup>b</sup>	2 <sup>b</sup>

Iino Marine Service<sup>a</sup> (no. cases)

Year	'05	'06	'07	'08	'09
Deaths	0	0	0	0	0
Injuries	0	0	0	1 <sup>b</sup>	0
Diseases	0	0	0	0	0
Total	0	0	0	1 <sup>b</sup>	0

Iino Building Technology (no. cases)

Year	'05	'06	'07	'08	'09
Deaths	0	0	0	0	0
Injuries	1	2	1 <sup>b</sup>	0	0
Diseases	0	0	0	0	0
Total	1	2	1 <sup>b</sup>	0	0

a: Onshore employees only b: Injuries due to commuting accidents

## Onshore Workforce Initiatives

### Work-life Balance Initiatives

At Iino Lines, we offer parental leave to employees with children up to 18 months of age and shortened work schedules for parents of children yet to reach school age. To date, a total of five employees have taken parental leave.

#### Report from an employee on childcare leave

I'm on childcare leave after giving birth in February 2009. At times, I was apprehensive before going on leave, but my coworkers were helpful and considerate of my physical condition during pregnancy. I received a detailed explanation of the childcare leave program, which eased my anxiety about taking a leave of absence. Being a first-time parent is challenging and I still have much to learn, but I plan to focus exclusively on taking care of and growing together with my child for one year before returning to work.



Minako Matsudo  
Stakeholder Relations Management & Research Group

### Advanced Life-saving Training

A group of Iino Group employees voluntarily took part in an advanced life-saving training program conducted by the Tokyo Emergency First-Aid Association (TEFA). Five and seven employees respectively attended training sessions on March 22 and 27, 2010, at the Kojimachi Fire Station in Tokyo's Chiyoda-ku. TEFA was established in 1994 to educate the public in first-aid techniques. Attendees at its March 2010 training sessions learned to use automated external defibrillators (AED) and to treat injuries and other medical emergencies with first-aid techniques under the tutelage of emergency medical technicians and other highly experienced instructors.

#### Participant's report

I found the training to be extremely valuable. I learned not only how to use an AED and how to administer first-aid treatments such as adult CPR but also how to modify such treatments for children. It brought home the reality that I probably would be of no help in a medical emergency had I not attended the training. By personally gaining such knowledge, I feel better equipped to contribute, however meagerly, to society at large and also help ensure employee safety and business continuity. I hope to encourage others to receive first-aid training so they can be a bridge to the future for someone.



Eisuke Kamata  
Safety & Environment Office  
Stakeholder Relations Management & Research Group

### Participation in Umi-no-Mori Tree Planting Event

Every year, Iino Group employees and their families participate in a tree planting event at Umi-no-Mori, a project headed by renowned architect Tadao Ando. In 2009, six employees participated in the event, which was held on September 20. On the day of the event, they planted saplings on reclaimed land off Odaiba in Tokyo Bay to create a man-made forest modeled after Japan's indigenous evergreen forests. The Umi-no-Mori project aims to transform the reclaimed land, which was formed from trash and soil excavated from construction sites, into a forest through volunteer labor. The tree plantings are scheduled to be completed in 2016.

#### Participant's report

Planting saplings under a clear autumn sky while imagining the forest into which they will eventually grow was an enjoyable break from my everyday routine. "Think globally, act locally" is a widely used environmental slogan, but it is easier said than done. I believe that this tree-planting activity truly exemplifies such local action. Decades from now, I hope that the trees that we planted will be part of a beautiful forest adorning Tokyo Bay.



Natsuhiko Ito  
IR Office  
Planning & General Affairs Group

## Index to Standard Disclosures

### Index to the GRI's Sustainability Reporting Guidelines' Standard Disclosures

Ref.	Description	Page(s)
<b>1 Strategy and Analysis</b>		
1.1	Statement from the most senior decisionmaker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	3-4
1.2	Description of key impacts, risks, and opportunities.	35 3-5
<b>2 Organizational Profile</b>		
2.1	Name of the organization.	50
2.2	Primary brands, products, and/or services.	19, 20
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	48
2.4	Location of organization's headquarters.	50
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	48, 50
2.6	Nature of ownership and legal form.	50
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	21, 22
2.8	Scale of the reporting organization, including: <ul style="list-style-type: none"> <li>• Number of employees;</li> <li>• Net sales (for private sector organizations) or net revenues (for public sector organizations);</li> <li>• Total capitalization broken down in terms of debt and equity (for private sector organizations); and</li> <li>• Quantity of products or services provided.</li> </ul>	17, 18 45, 46 50
2.9	Significant changes during the reporting period regarding size, structure, or ownership including: <ul style="list-style-type: none"> <li>• The location of, or changes in operations, including facility openings, closings, and expansions; and</li> <li>• Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).</li> </ul>	0
2.10	Awards received in the reporting period.	0
<b>3 Report Parameters</b>		
<b>Report Profile</b>		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	1
3.2	Date of most recent previous report (if any).	Back Cover
3.3	Reporting cycle (annual, biennial, etc.).	Back Cover
3.4	Contact point for questions regarding the report or its contents.	54
<b>Report Profile</b>		
3.5	Process for defining report content, including: <ul style="list-style-type: none"> <li>• Determining materiality;</li> <li>• Prioritizing topics within the report; and</li> <li>• Identifying stakeholders the organization expects to use the report.</li> </ul>	54
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	1
3.7	State any specific limitations on the scope or boundary of the report.	1
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	1
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	28, 29
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such restatement (e.g., mergers/acquisitions, change of base years/ periods, nature of business, measurement methods).	5, 6
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	1

Ref.	Description	Page(s)
<b>Report Profile</b>		
3.12	Table identifying the location of the Standard Disclosures in the report.	37-39
<b>Assurance</b>		
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	x
<b>4 Governance, Commitments, and Engagement</b>		
<b>Governance</b>		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	33, 34 4
4.2	Indicate whether the chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	33, 47
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	47
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	3
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	x
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	3
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	x
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	1 2
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	33 3, 4
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	x
<b>Commitments to External Initiatives</b>		
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	x
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	x
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Has positions in governance bodies;</li> <li>• Participates in projects or committees;</li> <li>• Provides substantive funding beyond routine membership dues; or</li> <li>• Views membership as strategic.</li> </ul>	x
<b>Stakeholder Engagement</b>		
4.14	List of stakeholder groups engaged by the organization.	13, 51, 52, 54
4.15	Basis for identification and selection of stakeholders with whom to engage.	54 2
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	54 20, 22, 26



## Index to Standard Disclosures

### Index to the GRI's Sustainability Reporting Guidelines' Standard Disclosures

Ref.	Description	Page(s)
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	16, 52, 54
<b>5 Management Approach and Performance Indicators</b>		
<b>Economic</b>		
<b>Aspect: Economic Performance</b>		
EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	17, 18 45, 46
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	×
EC3	Coverage of the organization's defined benefit plan obligations.	×
EC4	Significant financial assistance received from government.	—
<b>Aspect: Market Presence</b>		
EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	×
EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	43 8, 34
EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	×
<b>Aspect: Indirect Economic Impacts</b>		
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	8
EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	×
<b>Environmental</b>		
<b>Aspect: Materials</b>		
EN1	Materials used by weight or volume.	×
EN2	Percentage of materials used that are recycled input materials.	×
<b>Aspect: Energy</b>		
EN3	Direct energy consumption by primary energy source.	38, 41, 31, 33
EN4	Indirect energy consumption by primary source.	38, 41, 31, 33
EN5	Energy saved due to conservation and efficiency improvements.	40
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	11, 40 12, 25
EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	×
<b>Aspect: Water</b>		
EN8	Total water withdrawal by source.	41, 31, 33
EN9	Water sources significantly affected by withdrawal of water.	—
EN10	Percentage and total volume of water recycled and reused.	41, 31, 33
<b>Aspect: Biodiversity</b>		
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	—
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	9 -12 38, 13, 14
EN13	Habitats protected or restored.	—
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	9 -12 38, 13, 14
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	×

Ref.	Description	Page(s)
<b>Aspect: Emissions, Effluents, and Waste</b>		
EN16	Total direct and indirect greenhouse gas emissions by weight.	38, 41 16, 31, 33
EN17	Other relevant indirect greenhouse gas emissions by weight.	×
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	40
EN19	Emissions of ozone-depleting substances by weight.	×
EN20	NO, SO, and other significant air emissions by type and weight.	38, 41, 31, 33
EN21	Total water discharge by quality and destination.	41, 31, 33
EN22	Total weight of waste by type and disposal method.	41, 31, 33
EN23	Total number and volume of significant spills.	23
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	×
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	×
<b>Aspect: Products and Services</b>		
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	36, 38, 39, 40 21, 23, 25, 27
EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	—
<b>Aspect: Compliance</b>		
EN28	Monetary value of significant fines and total number of nonmonetary sanctions for noncompliance with environmental laws and regulations.	—
<b>Aspect: Transport</b>		
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	×
<b>Aspect: Overall</b>		
EN30	Total environmental protection expenditures and investments by type.	41, 31, 33
<b>Labor Practices and Decent Work</b>		
<b>Aspect: Employment</b>		
LA1	Total workforce by employment type, employment contract, and region.	43
LA2	Total number and rate of employee turnover by age group, gender, and region.	×
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	×
<b>Aspect: Labor/Management Relations</b>		
LA4	Percentage of employees covered by collective bargaining agreements.	×
LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	×
<b>Aspect: Occupational Health and Safety</b>		
LA6	Percentage of total workforce represented in formal joint management – worker health and safety committees that help monitor and advise on occupational health and safety programs.	×
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	43, 35
LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	3, 4
LA9	Health and safety topics covered in formal agreements with trade unions.	×
<b>Aspect: Training and Education</b>		
LA10	Average hours of training per year per employee by employee category.	×
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	44 34, 35

## Index to Standard Disclosures

### Index to the GRI's Sustainability Reporting Guidelines' Standard Disclosures

Ref.	Description	Page(s)
LA12	Percentage of employees receiving regular performance and career development reviews.	x
<b>Aspect: Diversity and Equal Opportunity</b>		
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	x
LA14	Ratio of basic salary of men to women by employee category.	x
<b>Human Rights</b>		
<b>Aspect: Investment and Procurement Practices</b>		
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	x
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	x
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	x
<b>Aspect: Non-Discrimination</b>		
HR4	Total number of incidents of discrimination and actions taken.	0
<b>Aspect: Freedom of Association and Collective Bargaining</b>		
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	x
<b>Aspect: Child Labor</b>		
HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	x
<b>Aspect: Forced and Compulsory Labor</b>		
HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	x
<b>Aspect: Security Practices</b>		
HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	x
<b>Aspect: Indigenous Rights</b>		
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	0
<b>Society</b>		
<b>Aspect: Community</b>		
SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	x
<b>Aspect: Corruption</b>		
SO2	Percentage and total number of business units analyzed for risks related to corruption.	x
SO3	Percentage of employees trained in organization's anticorruption policies and procedures.	x
SO4	Actions taken in response to incidents of corruption.	—

Ref.	Description	Page(s)
<b>Aspect: Public Policy</b>		
SO5	Public policy positions and participation in public policy development and lobbying.	x
SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	x
<b>Aspect: Anti-Competitive Behavior</b>		
SO7	Total number of legal actions for anticompetitive behavior, antitrust, and monopoly practices and their outcomes.	0
<b>Aspect: Compliance</b>		
SO8	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	x
<b>Product Responsibility</b>		
<b>Aspect: Customer Health and Safety</b>		
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	x
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	16
<b>Aspect: Product and Service Labeling</b>		
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	x
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	0
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	36, 39 20, 22, 24, 26
<b>Aspect: Marketing Communications</b>		
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	x
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	0
<b>Aspect: Customer Privacy</b>		
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	x
<b>Aspect: Compliance</b>		
PR9	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.	0

#### Key

- Numbers in black : Corresponding page(s) in the Iino Report 2010
- Numbers in blue : Corresponding page(s) in Iino Report 2010: Detailed CSR Reporting
- : Item not applicable
- 0 : Number of cases/incidents was zero
- x : Item not addressed in either report

**GRI Application Level (self-declaration): This report (Iino Report 2010 and its supplement (Detailed CSR Reporting)) qualifies for GRI Application Level C.**

\*The table above indicates correspondence with the Standard Disclosures listed in the Sustainability Reporting Guidelines, version 3.0.

\*See the following URL for further details of the GRI's guidelines:

<http://www.globalreporting.org/Home/BottomBlock3/Block3.htm>

# Glossary

Terms appear in alphabetical order.

• **AED: Automated External Defibrillator**

Equipment that applies a brief electric shock to the heart after cardiac arrest or ventricular fibrillation (cardiac spasm) to reestablish normal heart rhythm. Every minute of ventricular fibrillation reduces the survival rate by 7 to 10 percent, which means that death almost certainly results in 10 minutes, so immediate action must be taken. In July 2004, the Ministry of Health, Labor and Welfare issued instructions to prefectural governors to deregulate the use of AEDs by non-healthcare professionals, including ordinary citizens. Since then, an increasing number of public facilities across the country have installed AEDs. AEDs incorporate audio playback functionality to guide laypersons by voiced instructions in operating the device if necessary.

• **Ballast water**

Seawater loaded into a ballast tank to control hull posture and to maintain stability. This is essential for the safe navigation of a ship. Ballast tanks are filled at ports of unloading and discharged at ports of loading, and this transfer of the ballast water results in the worldwide migration of microorganisms (bacteria and plankton), fish eggs and larvae. Settlement of these organisms in their new environment raises problems for the local marine ecology and fishing industry. In addition, some pathogenic bacteria have been found to directly affect human health. In response, the International Convention for the Control and Management of Ships' Ballast Water and Sediments was adopted by the IMO in February 2004. It will come into effect 12 months after ratification by more than 30 countries, representing 35% of world merchant shipping tonnage.

• **BCP: Business Continuity Plan**

An action plan that specifies the organizational chain of command, proactive and rapid reactive measures, and recovery measures in an emergency caused by a natural disaster or other contingencies to ensure continuation or early resumption of critical business activities, if interrupted, within a target recovery period in order to maintain a tolerable level of services for customers. Because BCPs worked effectively in the wake of the 9/11 terrorist attacks in New York, and because Japan experiences numerous natural disasters such as earthquakes and typhoons, more enterprises are now developing BCPs.

• **Bilge**

The mixture of oil and water that accumulates in the bottoms of ships.

• **BRM: Bridge Resource Management**

A technique that ensures safe, efficient navigation through optimized use of all resources available on the bridge of a vessel. Such resources include personnel (crew, pilot, etc.), hardware (navigational instruments and appliances), software (rules and manuals), and information. Particularly important is the optimized use of human resources through effective teamwork. BRM is aviation's CRM (cockpit resource management) applied to vessel navigation.

• **Cogeneration**

An energy supply system that captures the exhaust heat from power generation and uses it for air conditioning, hot-water supply, steam supply, etc., thus improving overall thermal efficiency. Conventional thermal power generation systems have an energy-use efficiency as low as 40% and waste the rest of the energy as exhaust heat. Cogeneration systems are reported to achieve a high energy-use efficiency of up to 80%.

A typical cogeneration system generates power with a prime mover (gas engine, gas turbine, diesel engine, etc.) and uses the exhaust heat. Another type of cogeneration system, touted as a next-generation technology, are fuel cells that produce electricity from the chemical reaction between hydrogen and oxygen and use the exhaust heat.

• **CSR: Corporate Social Responsibility**

Activities aimed at enhancing competitiveness and sustainable development of an enterprise, stimulating the economy and improving society by bringing all stakeholders into sight, identifying changes across a wide range of social needs including the economy, environment and society, and immediately connecting them to creating value and markets.

• **Deadweight tonnage (dwt, D/W)**

Deadweight tonnage is the weight in tons derived by subtracting the weight of the vessel from the total weight when cargo is loaded up to the load line. Technically, deadweight tonnage includes the weight of fuel, water, and other materials consumed during a voyage but provides a guideline for estimating the cargo weight a vessel can carry. In addition to the generally used ton (metric ton = 1,000kg), the long ton (approx. 1,061kg) and short ton (approx. 907kg) are also used.

• **Double-hull construction**

Double-hull construction prevents cargo oil from spilling and polluting the marine environment even if the outer shell is compromised in a collision or grounding. Annex I of the MARPOL 73/78 Convention was partially revised by the IMO in March 1992 and became effective in July 1993. The revised Convention demands the double-hulling of new 600-dwt or larger oil tankers that were ordered in or after July 1993, whose keels were laid or reworked in or after January 1994, or that were delivered or completed in or after July 1996.

• **Environmental quality cost accounting**

An accounting technique that applies the basic cost classifications used for quality cost accounting to environmental accounting. This technique is explained in METI's "Environmental Management Accounting Technique Workbook." What characterizes the technique is that external environmental losses (which

correspond to external failure costs in quality cost accounting) are defined as a loss to local communities, consumers, or currently unidentifiable payers and clearly distinguished from internally incurred environmental losses, which are shouldered by an individual enterprise.

• **Freon**

Du Pont's trade name for certain refrigerants, "Freon" is also commonly used as a generic term for compounds produced by replacing the hydrogen atoms of low hydrocarbon molecules, such as methane or ethane, with chlorine or fluorine atoms (CFCs, HCFCs, and HFCs). Because Freons are incombustible, thermally and chemically stable, and not particularly toxic, they were widely used as cooling media, cleaning agents in semiconductor and precision device manufacturing processes, air sprays, and as plastic foaming agents. However, as the theory of atmospheric Freon-induced ozone depletion gained ground, international regulations on the use of Freons were introduced.

Freons containing no hydrogen are called chlorofluorocarbons (CFCs). Of these, CFCs controlled under international ozone protection treaties are called specified Freons. Japan established the Act on the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures, according to which 15 types of CFCs were completely banned by 1996. Substitutes to banned Freons were then developed. Common substitutes include hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs). However, HCFCs have a non-zero ozone depletion potential (ODP), while HFCs have a zero ODP but a high global warming potential (GWP).

• **FOC (flag-of-convenience) ship**

A ship whose actual owner or manager's country is different from that of the flag raised. Such ships are generally owned by parties in developed countries but registered in countries such as Panama, Liberia, or Cyprus to take advantage of lower fixed-asset and registration tax rates and to save on running costs by employing foreign crews.

• **Formaldehyde**

Formaldehyde's chemical formula is HCHO. It is used as a raw material for various types of synthetic materials and in adhesives used in household goods such as wallpaper, furniture, and plywood. Formaldehyde is emitted over an extended period and is implicated in Sick House Syndrome. It is also carcinogenic. The guideline for allowable indoor concentration defined by the Ministry of Health, Labor and Welfare is 0.08ppm or less. It is regulated by legislation such as the Building Management Act, Air Pollution Control Act, and PRTR Act.

• **Greenhouse gas**

Greenhouse gases absorb infrared rays radiated from land surfaces warmed by the sun, causing the accumulation of thermal energy, like a greenhouse, and warming the atmosphere near the land surface. Greenhouse gases include the following six: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), dinitrogen oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs) (an alternative to chlorofluorocarbons), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>).

• **GRI: Global Reporting Initiative**

An international organization established in 1997 – with a mission to formulate and disseminate Sustainability Report Guidelines that are applicable worldwide – by the US based NPO, CERES (Coalition for Environmentally Responsible Economies) and the UN Environment Plan (UNEP). Its headquarters was established in Amsterdam, Netherlands, in 2002.

• **GRI Sustainability Reporting Guidelines**

Sustainability Report Guidelines launched by the GRI in 2000. They are widely used by companies to achieve transparency and disclose information using the triple bottom line (economic, environmental, and social aspects.) The third edition was released in 2006.

• **Halon**

A type of carbon halogenide containing bromine. One of the ozone-depleting substances that has a depletion capability greater than chlorofluorocarbon. Since it is incombustible, stable, and has a low level of toxicity, it has been widely used as a fire-extinguishing agent. Developed countries began banning its manufacture in 1994, with conversion to CO<sub>2</sub> fire-extinguishing equipment being widely advocated.

• **Hazard risk**

Hazards are external risk factors relating to random events. Hazard risks relate primarily to unpredictable external factors, such as earthquakes, typhoons, floods, and other acts of God and fires, wars, terrorist attacks, and other forms of accidents and incidents.

• **Ice thermal storage system**

A system that, as a method of electric-load leveling, creates ice with nighttime power, when electricity demand is low, and stores it for use in cooling during the day, when electricity use is high. Users save on costs by using lower-priced nighttime power, and it also lessens the burden on electric power companies' facilities. Further, because a higher proportion of nighttime power is nuclear generated, less CO<sub>2</sub> is produced.

• **IMO: International Maritime Organization**

A specialized agency of the United Nations responsible for promoting intergovernmental cooperation in handling technical and legal issues concerning marine transportation, such as maritime safety and prevention of environmental pollution by vessels, and for developing international rules and regulations. The agency was originally established in London as the Inter-Governmental Maritime Consultative Organization (IMCO) in 1958 and then renamed IMO in 1982.

# Glossary

Terms appear in alphabetical order.

## • ISM Code: International Safety Management Code

A body of rules for international vessel management adopted by the IMO in November 1993 and stipulated in Chapter IX of SOLAS, "Management for the Safe Operation of Ships." The code obligates shipowners and companies (vessel management companies, etc.) to establish safety management systems (SMS), appoint onshore safety administrators, prepare a safety navigation manual, maintain and control vessels and facilities, take action in emergencies, etc. Audits are performed by vessels' flag state governments and/or certification organizations to ensure these requirements are fulfilled. If so, the audited company is issued a DOC (Document of Compliance) and its vessels, SMCs (Safety Management Certificate). This has applied to all vessels engaged in international voyages since July 1, 2002. In Japan, a system allowing the ISM Code certificate to be voluntarily obtained for domestic vessels has been in place since June 2000.

## • ISPS Code: International Ship and Port facility Security Code

A security control rule for ships and ports involved in international transportation that is mainly concerned with enhancing measures to prevent terrorism. It was adopted by the IMO in December 2002. It came into force on July 1, 2004. Ships engaged in international transportation are required to have in place security management systems covered by an International Ship Security Certificate (ISSC), while ports are also obligated to establish such systems and have them approved.

## • KYT: Kiken Yochi (Risk Prediction) Training

Hazard prevention training is provided in the workplace to achieve zero accidents. Its objectives are to enhance teamwork and awareness of danger through the involvement of all personnel and to jointly identify potential hazards and develop, understand, and implement preventive measures. The basic form of KYT is the four-round (4R) method consisting of (1) ascertaining current safety status, (2) analyzing the nature of potential hazards, (3) establishing preventive measures, and (4) setting targets.

## • Low-E glass: Low Emissivity Glass

Glass coated with a special metal film to reduce emissivity and thermal transfer. Because low emissivity implies higher reflectance of infrared radiation, this type of glass reflects room heating energy indoors and improves the thermal insulation performance of the room. Fitted with the coated side outwards, the glass reduces the transfer of external heat to the inside and improves air-conditioning efficiency of the room. Low-E glass is often used for multi-glazed glass to additionally improve energy-saving performance.

## • Major Oil Inspection

A system whereby the international oil majors (international oil investor that dominates exploration, refinery, and oil sales) inspect tankers based on their own safety standards before allowing the transportation of crude oil and petroleum products aboard those vessels. Passing this inspection is an essential condition of many contracts.

## • MARPOL: International Convention for the Prevention of Pollution from Ships

Called the MARPOL Convention for short, the convention defines the technical standards for vessel construction and facilities that regulate oil discharges in order to prevent marine pollution. The International Convention for the Prevention of Marine Pollution from Ships, 1973, as modified by the protocol of 1978 (MARPOL 73/78) consists of the following six annexes:

Annex no.	Regulations	Effective-from date
I	Prevention of oil pollution	Oct. 2, 1983
II	Control of pollution from noxious liquid substances in bulk	Apr. 6, 1987
III	Prevention of pollution from harmful substances carried by sea in packaged form, including in containers or tanks	July 1, 1992
IV	Prevention of pollution by sewage from ships	Sept. 27, 2003
V	Prevention of pollution by garbage from ships	Dec. 31, 1988
VI	Prevention of air pollution from ships	May 19, 2005

## • Operating deadweight ton per month

A unit representing the amount of deadweight tonnage in operation over time. Calculated as: deadweight tons x (no. days in operation over a month / 30 days)

## • PCB: Polychlorinated biphenyl

PCBs, chemical compounds that are not soluble in water but are soluble in oil, were once widely used as electrical insulation oil and a heat medium for their chemical stability and excellent heat-resistant and electrical-insulating properties. Now the production and use of PCBs is banned because of the high toxicity to the human body and high levels of accumulation. The World Health Organization (WHO) warns of the possibility that PCBs may be environmental hormones (endocrine disrupters). In Japan, PCBs are specified as controlled substances under the Waste Disposal Act, the Act on Special Measures Against PCB Waste, the PRTR Act, and other laws and regulations.

## • Quality cost accounting

A technique employed to classify quality-related costs by the Prevention-Appraisal-Failure (PAF) Approach (basic classification of quality costs) and then invest quality loss and defect prevention costs and quality evaluation costs in order to reduce internal failure costs (internal quality defect losses) or reduce the costs of external failures (costs for managing external quality losses) to zero.

## • Risk Management

Management activities that ensure continuity and continual development of activities of a business entity by devising and implementing avoidance and preventive measures against all types of potential risks to the entity and response measures for reducing actual losses.

## • Ship Operation

Operation refers to arranging cargoes and schedules (ports of call, loading/offloading dates, etc.) and providing shipping schedules to self-owned ships or chartered ships so as to perform marine transport as requested by cargo owners. It also involves making other necessary arrangements (e.g., loading/unloading, bunkering, instructing ship managers to perform tasks.)

## • Sludge

Impurities in a ship's cargo, fuel, or lubricating oil. They often accumulate at the bottom of tanks.

## • SOLAS: The International Convention for the Safety of Life at Sea

A convention defining rules for vessel inspections, issuing of certificates, etc. and establishing technical standards for safety measures, etc., relating to vessel construction, facilities, life-saving facilities and cargo loading for the purpose of ensuring safe vessel operation. The first SOLAS Convention was adopted in 1914 in response to the Titanic accident that occurred on April 14, 1912. Newer conventions were subsequently adopted. The current one is the 1974 SOLAS Convention adopted in November 1974. The convention entered into effect in May 1980.

## • Sustainability

An ideal for achieving a balance between economic, environmental, and social needs of the present generation to avoid sacrificing the needs of future generations. In 1987, the World Committee on Environment and Development proposed the concept of sustainable development, which was later adopted in 1992 as a global policy in the Rio Declaration at a global summit.

## • Tanker Management and Self Assessment (TMSA)

Program established in 2004 by the Oil Companies International Marine Forum (OCIMF) to promote self assessment and continual improvement of tanker management by tanker operators.

## • VLCC: Very Large Crude Carrier

Recently, this means a large crude oil tanker in the 280,000- to 300,000-dwt class. An oil tanker larger than 300,000 dwt is often called a ULCC (Ultra Large Crude Carrier). Other commercial ship hull forms include the following.

Name	Types of ships	Description
Panamax	Tankers / Bulk carriers	The largest hull form capable of passing through the Panama Canal fully loaded. The beam of a ship is usually set to 32.2m since the maximum ship width for passing through the canal is 32.31m. Generally around 60,000 to 70,000 dwt.
Suezmax	Tankers	The largest hull form capable of passing through the Suez Canal in a fully loaded condition. Corresponding to around 140,000 to 150,000 dwt.
Aframax	Tankers	Abbreviation of Average Freight Rate Assessment. Originally, the term for a tanker of 79,999 dwt. Currently, it refers to a tanker in the 80,000- to 100,000-dwt class.
Capesize	Bulk carriers	A generic term for ore and coal cargo ships in the 150,000- to 200,000-dwt class capable of entering Port Richard Bay in the South African Republic. Full load draft is limited to 18.1m.
Handy bulkers	Bulk carriers	A generic term for cargo ships in the 20,000- to 50,000-dwt class capable of entering almost all harbors in the world.

\*We referred to the Japanese Shipowners' Association Web site for some shipping industry terms and their definitions. Terms in blue relate to shipping, in brown to real estate, and in black to both.

Terms in **blue**, **brown**, and **black** relate to the **shipping business**, **real estate business**, and **both businesses**, respectively.



**IINO Report 2010:** Detailed CSR Reporting

Issued on July 2010

Issued by Iino Kaiun Kaisha, Ltd. (Iino Lines)

Prepared by Kankyosha Co., Ltd.

Designed by IXNO image LABORATORY

Next volume to be issued in Summer 2011

Previously issued on July 30, 2009

Iino Kaiun Kaisha, Ltd. (Iino Lines)

Safety and Environment Office Stakeholder Relations Management & Research Group

Shiba-Daimon Front Bldg. 1-7-13 Shiba-kouen, Minato-ku, Tokyo

105-0011 Japan

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

Tel: +81-3-5408-0373 Fax: +81-3-5408-0383

E-mail: [srm-1@ex.iino.co.jp](mailto:srm-1@ex.iino.co.jp)