Glossary

[A]

★ AUS (Automatic Unloading System)

When cargo oil is unloaded and the amount of remaining oil in the tank becomes small, the cargo pump for unloading oil starts to draw mixture of cargo oil and vapor into the pump. Automatic unloading system separates the vapor from the cargo oil and allows the unloading of cargo oil as much as possible.

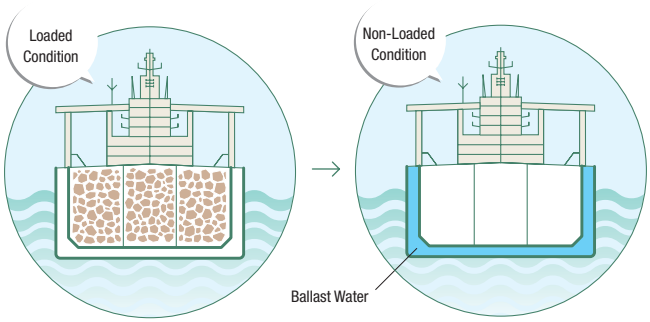
[B]

★ Bilge

It is a mixture of oil and water gathering in cargo holds or an engine room. There is a need for separation of water and oil with a bilge separator.

★ Ballast Water

Seawater loaded into ship's tanks to maintain ship's stability and hull's strength when cargo is not loaded or when weight of cargo onboard is light.



[C]

★ Cement Ballast

Although seawater is generally used to control a ship's posture, it is possible to use cement as ballast instead. In this way, ship can reduce the amount of ballast water to be loaded and discharged, and thus reduce the effect on the ecology. Additionally, by reducing ballast water pumping time, we can also conserve energy.

★ Central Cooling System (CCS)

In a conventional cooling system, lubricating oil is cooled through a heat exchanger by seawater which is discharged into the sea. In the new method - CCS, the lubricating oil is cooled with fresh water through the first stage of heat exchanger, and then, that heated fresh water is cooled with seawater through the second stage of exchanger. In case of oil leakage in the first stage of heat exchanger with something unexpected, the new method - CCS doesn't allow spilling oil into the sea because leaked oil is only mixed with fresh water and circulating at the first stage of heat exchanger.

★ CFCs

A substance that has been commonly used as a refrigerant in refrigerators/air conditioners, an injection agent of spray and a detergent in production of semi-conductors. Chlorofluorocarbon (CFC, R-12 as refrigerant name) with high ozone depleting potential ceased being produced in 1995 and its use banned from 2003. Production of Hydro-chlorofluorocarbon (HCFC, R-22) with less ozone depleting potential is to be ceased in 2020. The refrigerant name R-134a, one kind of Hydro-fluorocarbon (HFC), does not deplete the ozone layer and is used as a substitute for CFC and HCFC.

★ Compliance

It is used as the terminology that means to comply with a wide range of rules: including social norms and corporate ethics as well as laws/regulations/ordinances.

★ Corporate Governance

It means the corporate functions of building a framework for internal controls and protecting against any unfair practices. In Kabushiki Kaisha, a type of Business Corporation in Japan, the same functions can be more specifically analyzed and pointed out as follows: (1) Shareholders are able to check and control management from running away on their own and (2) it (Kabushiki Kaisha) has a system or institution that assuredly is able to check and stop illegalities on an organizational scale and (3) all the directors and employees are led in a common direction under the leadership of management to accomplish corporate principles. (3) is regarded as internal controls whereas the whole part ranging from (1) to (3) is categorized as corporate governance. Lately, the meaning has come to be utilized positively and significantly as a vehicle for compliance.

★ C-TPAT (Customs Trade Partnership Against Terrorism)

It is a partnership program created by the U.S. Customs. The program requires organizations engaged in U.S. trade to take part in the campaign: shipping lines, stevedores, inland carriers, manufacturers, cargo owners and warehousing companies, etc. It is a voluntary program jointly conducted by Customs and industries for protection of terrorism and assurance of security.

[D]

★ Double Hull

The double-hull system is aimed at shielding cargo/fuel tanks and preventing cargo/fuel oil from spilling to the outside even when holes are made in the outer plates as a result of grounding or collision.

[E]

★ Electronically-Controlled Engines

The type of engines whose injections of fuel are controlled with a computer: On a computerized programming basis, it is possible to control/adjust accurately (a) an injection pattern with timing, pressure and injection volume and also (b) timing of opening/closing of an exhaust valve.

★ Environmental Management System (EMS)

EMS is a set of systems and procedures for a corporate group or individual company to set policies and goals for environmental preservation in compliance with the requirements of ISO 14001. The purpose of EMS is to effectively implement the policies and achieve the goals. Preservation of the global environment is one of the important challenges that every company faces. Within their overall corporate activities, companies are required to address this issue voluntarily and actively. The construction and operation of the system requires the acquisition of certification by an independent organization.

★ Exhaust-Gas Economizer

This is a device that generates steam using thermal energy from the exhaust gas of main diesel engine. By operating turbine generators using the steam, ship can reduce the fuel consumption for the operation of the generators, which leads to a reduction in CO_2 emissions.

[F]

★ FTSE

FTSE is a joint company of Financial Times and Stock Exchange of the U.K. The company has offices in the major advanced countries, including Japan, and provides indexes for investors. The FTSE4Good Global Index is a social responsibility investment (SRI) index provided by FTSE.

[G]

★ Green Management Certification

Recognized and issued by a Japanese government agency certifying environmentally-friendly management, similar to ISO 14001.

★ GRI (Global Reporting Initiative)

GRI is an international organization founded in 1997. Its purpose is mapping out and familiarizing the guidelines for environmental reports that are globally applicable and sustainable. The guidelines require that we attach importance to the three elements of "environmental aspects," "economic aspects" and "social aspects" as a triple bottom line.

[H]

★ Halon

It is one of the fluorocarbons and widely used as a fire-extinguishing agent, which turns out to be more harmful in depleting the ozone layer than CFC. The developed nations have totally abolished its production.

[I]

★ IMO (International Maritime Organization)

The International Maritime Organization (IMO) is a specialized agency of the United Nations based in London. The purposes of the organization, which are set out in Article 1 of the IMO Convention, are to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships.

★ ISM Code (International Safety Management Code)

It is regulated in SOLAS Convention, Article No. 9 (management of safe ship operation). The Code facilitates enforcement of a comprehensive safety management for ships and their management companies. It attaches importance to ensuring safety of ships.

★ ISO (International Organization for Standardization)

ISO engages in defining standards for products and services in quality. ISO 9001 is a standard of production of quality-related systems to aim at quality management and guarantee. It maps out the ISO 14000 series that can be the standards related to the Environmental Management System focusing on management Administration System. Among the series, ISO 14001 defines requirements in the Environmental Management System.

★ ISPS Code (International code for the security of ships and of ports facilities)

The ISPS Code is a global treaty intended for ship operators and port authorities to ensure port security by preventing acts of terrorism and similar activities. It came into force on July 1, 2004. Under the code, ships are required to acquire an International Ship Security Certificate, obtain a certification of the security plan and appoint a qualified employee in charge of ship security.

[K]

★ "K" LINE SPIRIT

The term "SPIRIT" in the phrase is the combination of the initial letters of the words listed below. The expression embodies the philosophy for enhancing the quality of ship management and quoting the separate word relating to the corporate culture of the Company.
S=Skill, P=Professionalism, I=Intelligence, R=Responsibility, I=Innovation, T=Teamwork

[M]

★ MARPOL

MARPOL stands for Marine Pollution. It is an International Convention for the Prevention of Pollution from Ships. It was compiled in 1973 and 1978. Japan ratified it in 1983. It rules the standards of exhaust volume of oil, wastes and dirty water out of ships, requirements for ship hulls against marine pollution and ship operation.

[N]

★ NOx (Nitrogen Oxides)

When fuel oil burns in an engine, nitrogen contained-fuel oil and the air react with oxygen to form nitrogen oxides at high temperature. It is emitted together with exhausted gas, which makes a chemical reaction in contact with moisture in the air and sunlight and causes acid rains and air pollution.

[P]

★ PM (Particulate Matter)

Generally, PM collectively means small particles. In ships, ash dust is included in exhaust gas from diesel engines and boilers and is focused as a pollutant. PM whose size is 10 microns or smaller floats in the air and is thus treated as an airborne pollutant.

[S]

★ Silicon Paint

This is a paint that uses silicon-based resin and has character of elasticity and smoothness compared with conventional paints. Since the coefficient of friction of the painted surface is low, marine growth is not easily able to adhere to the surface. And when they do adhere, they can be more easily scraped off. The extent of deterioration with age is smaller, and therefore there are minimal increases in the resistance of the ship's hull. This feature contributes to the reduction of fuel consumption and CO_2 emissions. The paint is also environmentally friendly because it does not dissolve in water as is the case of conventional paints used for ship hulls.

★ Sludge

Sludge is impurities contained in fuel oil and lubricating oil. It is treated by incineration onboard or on land.

★ SMS (Safety Management System)

The SMS is one of the requirements of the ISM Code. The system is built and documented so that a shipping company's employees and ship crew can effectively implement the policy of safe operation and environmental preservation documented by the company.

★ SOLAS (Safety of Life at Sea)

It is an international convention concluded as a result of the Titanic (a passenger ship with British flag and 46,328 gross tons) accident to secure safety of ships.

★ Soot Collecting Device

A device to remove cinders, i.e. soot, etc., included in exhaust gas with installment of a specific kind of filters inside exhaust-gas pipes of diesel-powered generator.

★ SOx (Sulfur Oxides)

When sulfur burns in a diesel engine, SOx is generated and incurs acid rain and air pollution.

[T]

★ Ton-mile

Ton-mile is a unit meaning that a ship with one deadweight ton (deadweight = maximum weight that can be carried structurally) moves one mile (= 1.852km). The term is used, for example, as in the expression "CO_2 emissions are 100 grams per ton-mile." In this case, "100g/ton-mile" shall be used.

★ Tributyltin (TBT)

Tributyltin is a kind of organic chemical containing metallic tin. TBT-containing paint has been extensively used for painting ship's bottom due to its high effectiveness of anti-fouling. A marine biological research confirms that organic tin is discovered as having accumulated in marine life. It points out that the accumulated tin has possibility of posing a problem to environmental hormones with its toxicity.

★ Turbine Generator

This is an electric power generator driven by a steam-powered turbine. The steam, in turn, is produced effectively by an exhaust-gas economizer that employs the thermal energy of the exhaust gas from main diesel engine. Thanks to this co-generation system, ship can reduce fuel consumption for the operation of diesel generators and hence CO_2 emissions.

[V]

★ VECS (Vapor Emission Control System)

When cargo oil, such as crude oil, is loaded into the tank of a tanker, it emits vapor. VECS is a system to prevent vapor emission into the atmosphere and to collect it and transfer it to a shore facility. The transferred vapor is appropriately collected and treated in the facility as like liquefied into crude oil.