

GREEN SHIP PLAN

BACKGROUND

As the economic activities of mankind are increasingly frequent, the environmental performance has become the focus of the international community. Although the shipping industry has considerable advantage in the environmental performance as compared to other means of transportation, its energy consumption and total emissions are still large. According to the research reports of International Maritime Organization and International Association of Independent Tanker Owners (INTERTANKO), CO₂ emission from global shipping industry reached 1.1 billion tons in 2007 and will reach 1.4 billion tons in 2020, accounting for 6% of global total emissions while SO_x and NO_x emissions occupying 20% and 30% of the global emissions respectively. It is imperative for the shipping and shipbuilding industries to improve the environmental performance of ship, with increasing concern from the government, public and media, and against the economic backdrop of “environmental protection, low carbon”.

In face of great resistance from cost and the market, the standards for phased-in emission reduction of SO_x and NO_x have been adopted in MARPOL Annex VI with active promotion of IMO and regional organizations. “Limiting carbon emission from shipping” is the current priority for IMO with regard to environmental protection and will undoubtedly be adopted in a new global framework convention on climate change.

CHALLENGE AND OPPORTUNITY

The international “green tide” to “low carbon” economy will bring a profound impact on the shipping and shipbuilding industries in the future, as it will raise higher requirements for ship design, techniques, associated equipment, application of new energy technology and ship operation, which is absolutely a new challenge to the shipping and shipbuilding industries. Meanwhile, it is also a great opportunity for those enterprises to respond proactively, prepare sufficiently and act early, in order to adapt to and seize the future “environmental friendly, low carbon” shipping market.



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WHAT WE CAN DO

China Classification Society has always been devoted to the research and development of green technology of ship over the years, actively engages in the research and development of the system of green ship rules, and introduces “green ship plan”.

The “green ship plan” embodies ship’s high energy efficiency, low emission, low pollution, safety and health, throughout the entire life of ship from design, construction, operation to recycling. The “green ship” will be the necessary assurance for shipping companies to provide clients with green transportation service products in order to demonstrate their compliance with relevant international environmental convention and green regulatory framework of the government is achieved.

1. Ship design and construction:

Placing emphasis on research of IMO Energy Efficiency Design Index (EEDI) and baselines in terms of material, design of form, design of blade, propeller rudder and propeller engine adaptability, structural arrangement, reducing resistance, fuels, combustion, emission, recycling, wind powered navigation and energy efficiency. Developing associated engineering software and carrying out class survey and certification service to energy-saving ships.

2. Ship operation:

Carrying out research of measures to improve environmental performance of ships in service in areas of equipment, management and operation, and developing relevant implementation guidelines; providing assessment service for technical innovation of equipment; developing energy efficiency optimization and analysis software; establishing Energy Efficiency Operational Indicator (EEOI) database; conducting certification service to ship’s energy efficiency operational management.

3. Ship recycling and control of hazardous materials:

Establishing procedures to check, verify and approve the inventory of hazardous materials (green passport). To develop inventory development software complying with requirements of convention and Guidelines for the Development of the Inventory of Hazardous Materials, providing guidance for the development of the Inventory of Hazardous Materials, and issuing/endorsing International Ready for Recycling Certificate.

4. Certification service of ship’s energy efficiency/environment level

The interested parties involved in the shipping market have increasingly wished to use a “green label” to reflect the level of various energy efficiency and environmental indicators of ships and during transportation in a truthful and reliable manner. Shipowners/management companies wish to emphasize the brand value of company and ship, and enhance public image by means of a differentiated environment/energy efficiency evaluation system. Charterer, shipper, harbour and underwriter etc. wish to identify the environmental risk of ships by means of the green label.

The certification service of ship’s energy efficiency/environment level provided by China Classification Society has satisfied the market needs, which carries out a comprehensive assessment of ship’s energy efficiency/environment level based on company and ship performance in terms of equipment, management and operation. The assessment process is based on self-assessment and on-site audit, and ship’s energy efficiency/environment level certificate issued by China Classification Society in accordance with audit results.

Key assessment factors of company and ship:

1. Energy efficiency/environment management system has been established and implemented;
2. All environmental factors have been identified and appropriate control measures have been taken;
3. All the current and applicable international conventions and flag state’s regulations related to environmental protection have been identified and observed;
4. Energy efficiency/environmental performance indicators which are capable of being measured, monitored and verified have been established;
5. Documented ship’s energy efficiency management plan has been implemented and continuously improved;
6. Approved emission and monitoring system is in place and detailed monitoring record of environmental performance indicators is kept;
7. Voluntary report/self-assessment is truthful and valid.

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