

Highlights of IMO Environmental Regulation for Shipping

Development and Impacts

ACS Seminar 2022



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IMO

Regulation Development



International Maritime Organization

(IMO) main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and implemented.



Shipping Industry is International Industry

International shipping transports more than 80 percent of global trade.



Aspects covered by IMO

IMO measures cover all aspects of international shipping including ship design, construction, equipment, manning, operation and disposal

IMO Regulation Development

Marine Environment Protection Committee (MEPC)

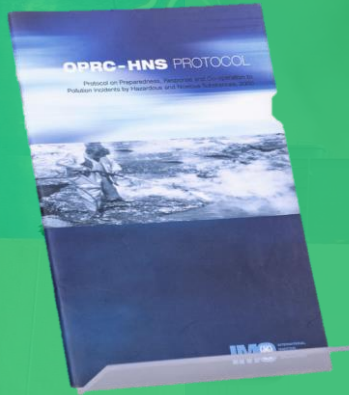


- The IMO-Marine Environment Protection Committee (MEPC) is responsible for developing environmental regulations
- Environmental regulations take relatively longer to be adopted
- Environmental protection regulations have become more significant in maritime affairs in the last decade

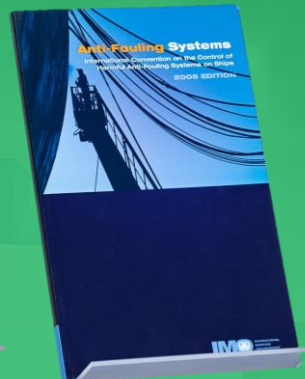
IMO Regulations Related to Environmental Protection



MARPOL



OPRC



AFS

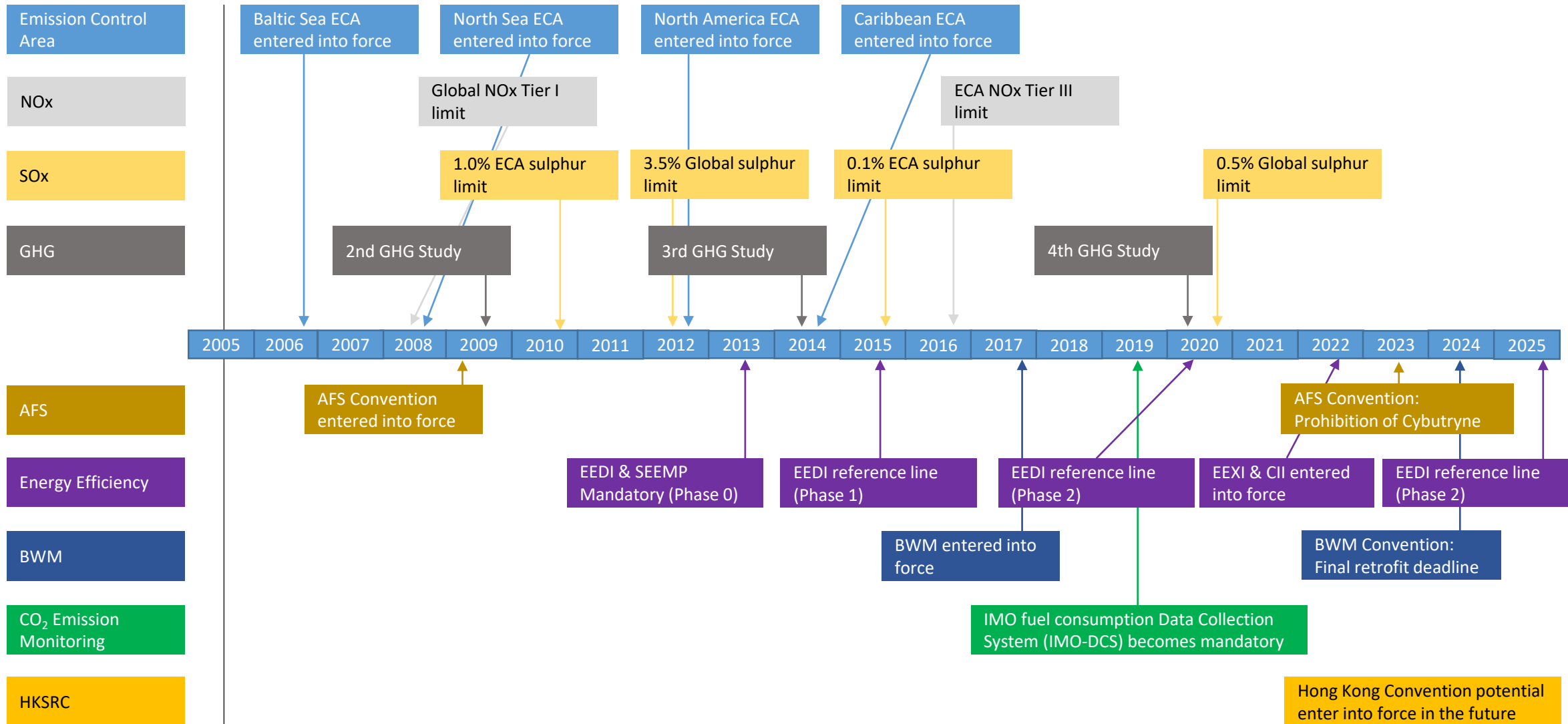


BWM



HKSRC

Timeline of Environmental Regulations from 2005 - 2025



source: IMO, BKI

Major Change in Environmental Regulations

● Global Sulphur Limit

3,5% sulphur limit become globally implemented in 2012 and reduce by 0,5% in 2020

● Energy Efficiency Design Index (EEDI)

Energy Efficiency Design Index (EEDI) & Ship Energy Efficiency Management Plan (SEEMP) phase 0 was implemented in 2013

● BWM Convention

BWM Convention is enter into force internationally at 8 September 2017

● IMO DCS

The mandatory Fuel Oil Data Collection System (DCS) for international shipping, requiring ships of 5,000 gross tonnage or above to start collecting and reporting data to an IMO database from 2019

● Energy Efficiency eXisting ship Index (EEXI)

Ship owners and managers should prepare the EEXI and CII requirements. They should check and develop their ships. This means ships must have the appropriate certificates ready by 1 January 2023.

Impact on Shipping Industry

Ship's design & construction aspect

BWM Convention

- Consider the ballast system or other alternative approach

MARPOL Annex VI

- Consider the NOx limitation aspect for choosing the main/auxiliary engine
- Fulfill the EEDI index specifications by choosing the right propulsion, hull design, fuel type, and using cutting-edge technologies
- Fulfill the EEXI index specifications by using cutting-edge technologies for the existing ships.

Hong Kong Convention

- Controlling potential hazardous materials from the ship through IHM compliances in the design stage

Impact on Shipping Industry

Ship's equipment aspect



Marine engine tier standard should consider for each installation date



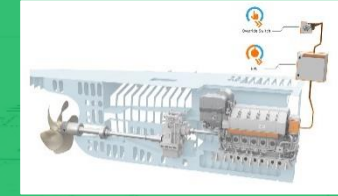
EGCS/Scrubber as alternative compliance for sulphur limit of fuel



Mandatory installation of BWMS for ship



Apply innovative energy-efficient technology to achieve the EEDI index



Engine Power Limitation (EPL) part installation for existing ship engines as an option to comply with energy efficiency regulation

Impact on Shipping Industry

Ship's operation aspect



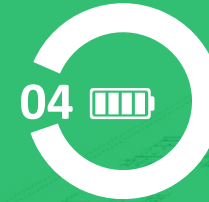
Fuel-efficient operations



Optimized ship handling



Energy management including operation monitoring and improvement



Consideration of fuel oil availability and quality (bunkering) in terms of the trading area as ECA or SECA

Conclusion



Fleet acquisition

When planning fleet acquisition, it is vital to take into account factors such as design and construction, equipment needs, and ship operations in terms of upcoming environmental regulations.



Keep up with upcoming regulation

Making the classification body a crucial collaborator in maintaining regulatory changes by consulting with them



Keep one's edge in the market

Continue to maintain and strive to comply with IMO regulations to maintain competitiveness