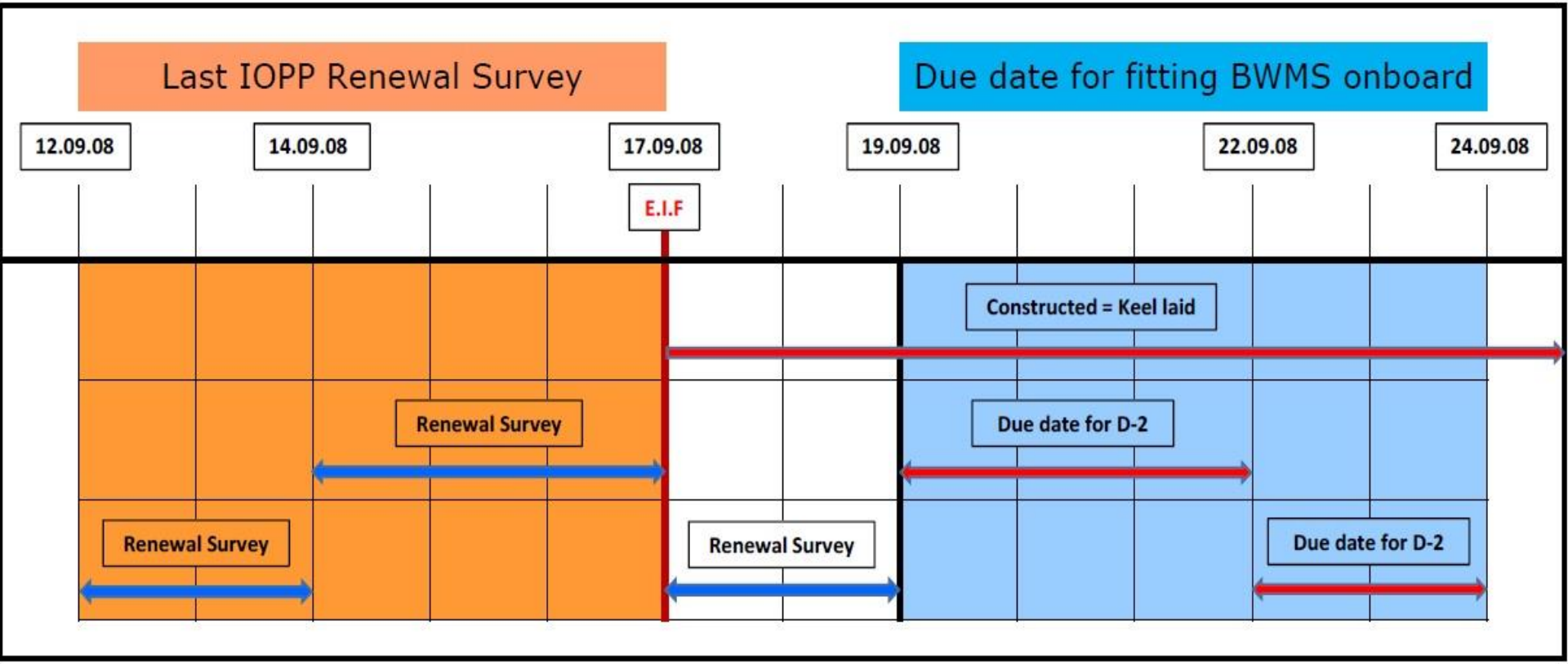
Results of MEPC 72nd session and the prospect of future regulation

Sungchul Jo
Korean Register

Contents

Ballast Water Management Convention issues

1) Amendments to regulation B-3 of BWM Convention



* Reasons

- no systems type approved in accordance with revised G8 guidelines, Significant difference between the application dates of BWMS;

- the objectives of the Convention for the installation of the BWMS;

Ballast Water Management Convention issues

2) Adoption of BWMS Code and a Unified Interpretation on the IBWM Certificate

MEPC 70 adopted 2016 guidelines for type approval of BWMS to Res.MEPC.279(70) and agreed that it should be mandatory instrument to 'BWMS Code'

* *With respect to the 'installed date' of BWMS in a relevant section of IBWM certificate, given that new G8 guidelines will apply on 28 Oct. 2020 based on the contractual date of delivery of the system, a unified interpretation that two dates, i.e. the contractual date of delivery of the system and the date for commissioning test may exist.*

Ballast Water Management Convention issues

3) Experience-Building Phase associated with BWM Convention

MEPC 72 approved data gathering and analysis plan for the experience-building phase associated with the BWM Convention

MEPC session	Timing	Milestone	EBP / MEPC action
73	Autumn 2018	Convention has been in force 1 year	
74	Spring 2019		1st year of data available.
75	Autumn 2020	Convention has been in force 2 years	2nd year of data available, stocktaking of EBP timeline.
76	Autumn 2020	Convention has been in force 3 years	Partial 3rd year of data available, enough to agree to data analysis report terms of reference.
77	Spring 2021		Full 3rd year of data available, Draft analysis report received.
78	Spring 2022	Convention has been in force 4 years	Final analysis report received. Convention issues agreed.
79	Autumn 2022	Convention has been in force 5 years	Package of amendments submitted to the Parties.

** During the experience building phase, a ship should not be penalized (sanctioned, warned, detained or excluded) solely due to an exceedance of D-2 standard, provided that the BWMS is type approved, installed correctly, maintained as per manufacturer's instruction, BWMP has been followed and self-monitoring system is working properly*

Air Pollution Issues

1) Prohibition on the carriage of non-compliant fuel oil
(Sulphur contents over 0.5% m/m)

MEPC 72 approved the draft amendments* to regulation 14 of MARPOL Annex VI and the form of the Supplement to the IAPP certificate concerning prohibition on the carriage of non-compliant oil for combustion purposes for propulsion or operation on board a ship

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* *MARPOL Annex VI, Reg. 14.1*
"The sulphur content of fuel oil used or carried for use on board a ship shall not exceed 0.50% m/m."

* *Supplement to the IAPP certificate 2.3.3*

"For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes……□"

Air Pollution Issues

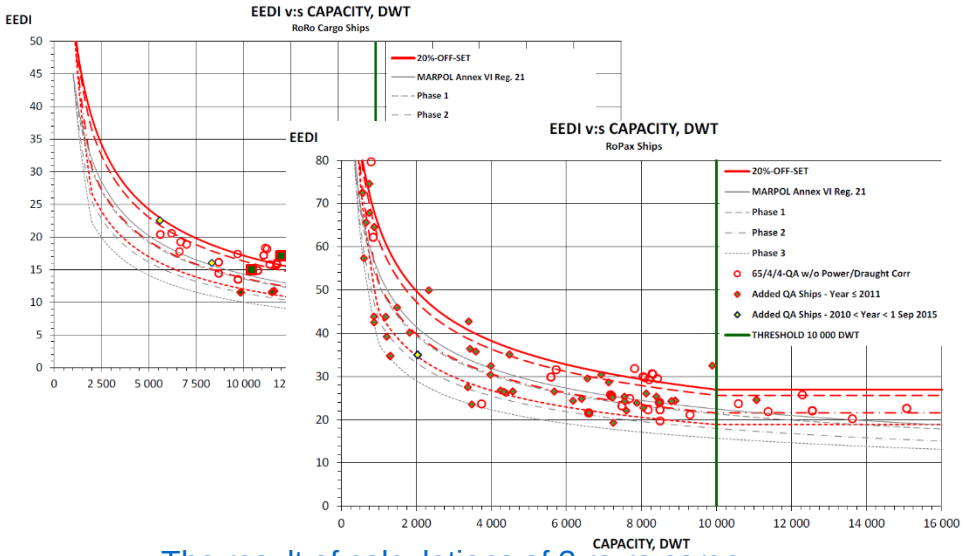
2) Amendments to MARPOL Annex VI (Ro-Ro Ships)

MEPC 72 adopted amendments of increase of the reference lines by 20% and the introduction of DWT threshold values for larger size of ro-ro cargo (over 17,000 DWT) and ro-ro passenger (over 10,000 DWT) ships

2.34 Ro-ro cargo ship	1405.15	DWT of the ship	0.498
	1686.17*	DWT of the ship where DWT≤17,000 17,000 where DWT > 17,000*	
2.35 Ro-ro passenger ship	752.16	DWT of the ship	0.381
	902.59*	DWT of the ship where DWT≤10,000 10,000 where DWT > 10,000*	

* to be used from phase 2 and thereafter.

Approved Amendment of MARPOL Annex VI Reg.21



The result of calculations of 3 ro-ro cargo ships and 8 ro-ro passenger ships

* *In relation to the introduction of DWT threshold values for larger size ro-ro cargo and ro-ro passenger ships in the reference line, there were a view that this methodology should also be considered for other ship types, therefore this item has been kept in abeyance for future consideration*

Data Collection System for Fuel Consumption

1) Sample format of COC and early submission of SEEMP Part II by 1 Sept. 2018

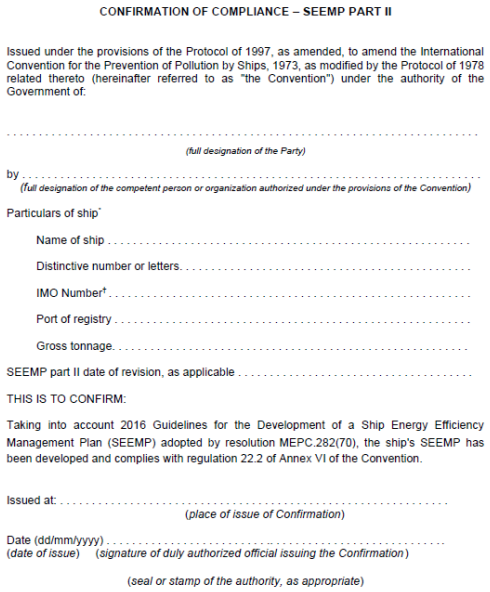
MEPC 72 approved MEPC.1/Circ.876 on Sample format for Confirmation of compliance, early submission of the SEEMP Part II on the ship fuel oil consumption data collection plan and its timely verification

Ship Energy Efficiency Management Plan (SEEMP)

Part II Ship Fuel Oil Consumption Data Collection Plan

(*** Shipping)

Name of Ship	
IMO NO.	



CONFIRMATION OF COMPLIANCE – SEEMP PART II

Issued under the provisions of the Protocol of 1997, as amended, to amend the International Convention for the Prevention of Pollution by Ships, 1973, as modified by the Protocol of 1978 related thereto (hereinafter referred to as "the Convention") under the authority of the Government of:

. . . . . .
(full designation of the Party)

by . . . . . .
(full designation of the competent person or organization authorized under the provisions of the Convention)

Particulars of ship*

Name of ship . . . . . .

Distinctive number or letters. . . . . .

IMO Number† . . . . . .

Port of registry . . . . . .

Gross tonnage. . . . . .

SEEMP part II date of revision, as applicable . . . . . .

THIS IS TO CONFIRM:

Taking into account 2016 Guidelines for the Development of a Ship Energy Efficiency Management Plan (SEEMP) adopted by resolution MEPC.282(70), the ship's SEEMP has been developed and complies with regulation 22.2 of Annex VI of the Convention.

Issued at: . . . . . .
(place of issue of Confirmation)

Date (dd/mm/yyyy) . . . . . .
(date of issue) *(signature of duly authorized official issuing the Confirmation)*

(seal or stamp of the authority, as appropriate)

* *Member governments are invited to encourage stakeholders concerned to submit SEEMP Part II to the Administration or its Recognized Organizations by 1 September 2018*

Reduction of GHG emissions from ships

1) Adoption of initial IMO strategy on reduction of GHG emissions

According to the roadmap for reduction of GHG emission from ships which was developed at MEPC 70, MEPC 72 adopted the draft Initial IMO Strategy on reduction of GHG emissions from ships

schedule	contents	schedule	contents
2017.6 (ISWG-GHG1)	1st Inter-sessional meeting	**2020.Summer**	2019 data to be reported to IMO
2017.7 (MEPC 71)	Discussion continues	**2020.10 (MEPC 76)**	**Phase 2 : Data Analysis**
2017.10(ISWG-GHG 2)	2nd Inter-sessional meeting	**2021.5 (MEPC 77)**	Initiation of work for initial strategy
2018.4 (ISWG-GHG 3)	3rd Inter-sessional meeting	**2021.Summer**	2020 data to be reported to IMO
2018.4 (MEPC 72)	Adoption of **Initial IMO Strategy***	**2021.4 (MEPC 78)**	**Phase 3 : Decision step**
2019.1	**Phase 1 : Data Collection**	**2022.Summer**	2020 data to be reported to IMO
2019.5 (MEPC 74)	Discussion continues	**2023.4 (MEPC 80)**	**Adoption of " IMO strategy "**, including short-, mid- and long-term further measures with schedule

* Adopted *initial IMO strategy on reduction of GHG emissions from ships will be reviewed through three step approach which is data collection, data analysis, and decision making, and the final version of the IMO strategy will be revised and adopted at MEPC 80 in 2023*

Contents

1. Results of MEPC 72nd session

2. 2020 0.50% Sulphur Limit & EGCS

3. Initial IMO Strategy on reduction of GHG emissions from ships

0.50% Sulphur Cap to take effect from 2020

TradeWinds

- Friday, 28 Oct 2016 -

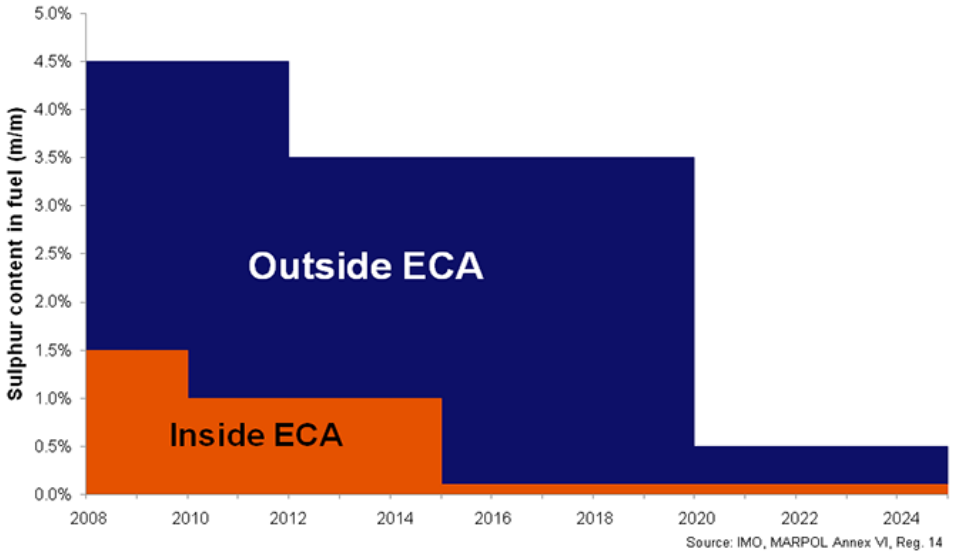
LATEST JOBS Marine Publications Manager (Glasgow City (

IMO: It's 2020

Shipping to burn only clean fuel within next four years.

October 27th, 2016 14:17 GMT by Adam Corbett in London
Published in AND ALSO

The International Maritime Organisation (IMO) has come to a broad agreement to implement a global 0.5% limit on the sulphur content of fuel from 2020.



Postponement? Almost non possibility

- **Why postponement is issued?**
  - Market and industry situation is not as like as assumed IMO decided 2020
  - Continuous requests of re-assessment (South America, Asia, Middle Asia)
  - Experience on BWMS installation right before EIF (2 months ago)

- **IMO Discussion on this postponement issue**

Session	Raised by	Conclusion
MEPC 70 (2016.10)	BIMCO, IPIECA, Korea, India, Brazil	Decision made as 2020
PPR 4 (2017.1)	Peru	Out of mandate of Sub-committee
MEPC 71 (2017.7)	India, Brazil	Majority disagreed
PPR 5 (2018.2)	Saudi Arabia, Bangladesh, Colombia, Iran, UAE	No change

- **IMO Secretary**
  - Q&A : no time for amendment MARPOL Convention
  - Secretary General : "There is no turning back"

Local Sulphur regulations

Area	SOx limit on fuel oil		
	Effective date	Limit	Condition
California	2014.1.1.~	**0.1% m/m**	**Only MDO or MGO**
EU	2010.1.1.~	**0.1% m/m**	**At berth in EU ports***
Turkey	2012.1.1.~	**0.1% m/m**	**At berth in Turkey ports***
Hong Kong	2015.7.1.~	**0.5% m/m**	**At berth in Hong Kong ports*, ****
China	2017.1.1.~	**0.5% m/m**	**At berth in 11 core ports****
	2018.1.1.~		**At berth in all ports****
	2019.1.1.~		**In ECA**
Taiwan	2019.1.1.~	**0.5% m/m**	

* at anchor, on buoys or alongside, whether or not they are working cargo
** Applicable time : from one hour after berthing to one hour before unberthing

Available Solutions

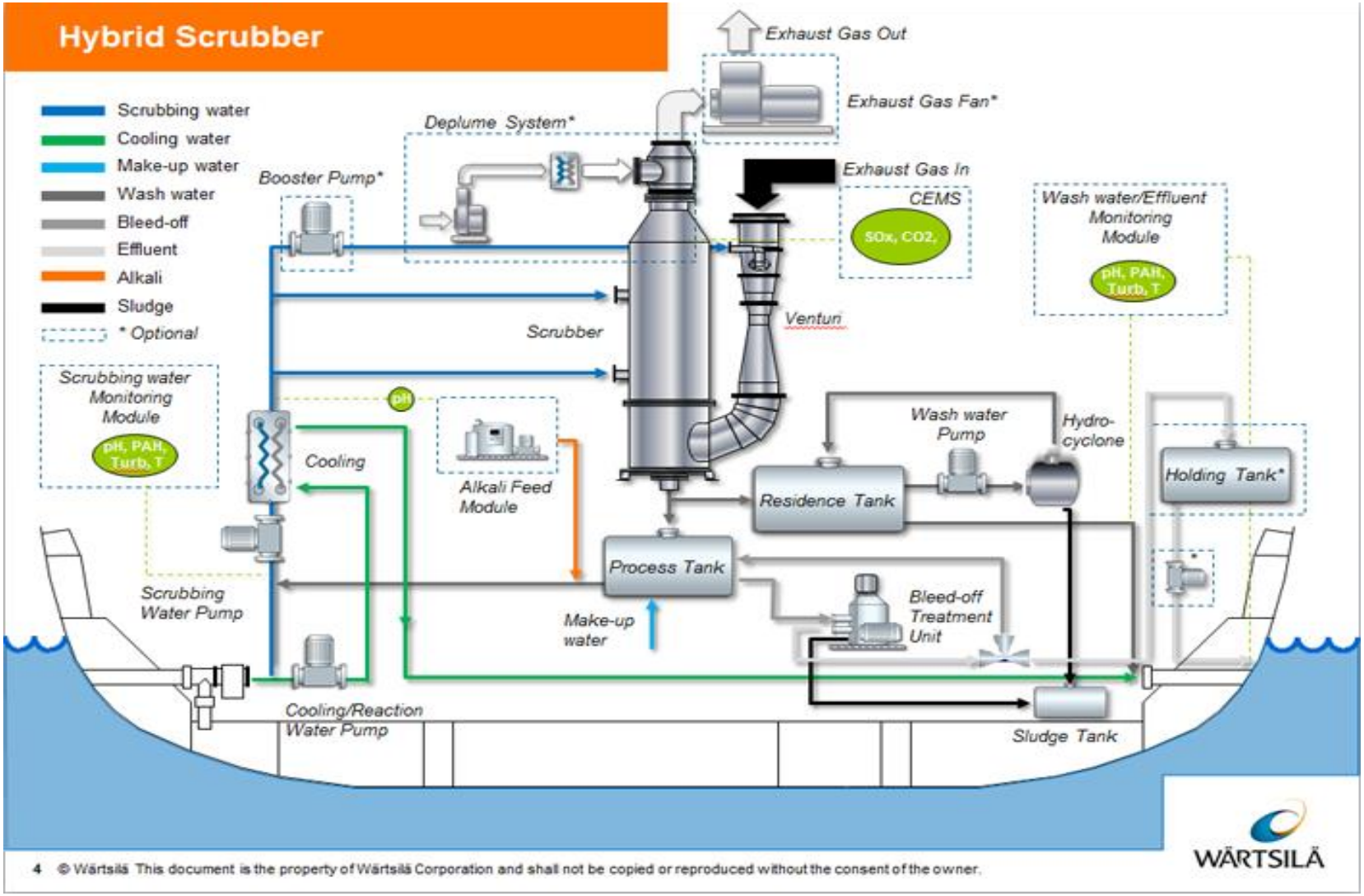
LSFO | **Scrubber** | **LNG** | **Battery**

Multiple solutions to a single issue

Image Source : ship-technology.com / seanews.com / seatrade-maritime.com / motorship.com / imperial trading

Exhaust Gas Cleaning System

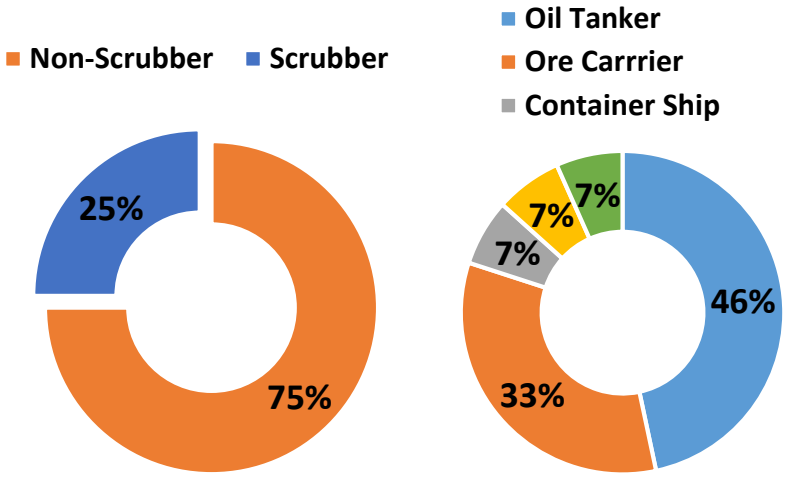
※ Exhaust Gas Cleaning System, Scrubber – Res.MEPC.259(68)



Current Status

Korean Shipyards

○ New Building Orders in Korean Shipyards

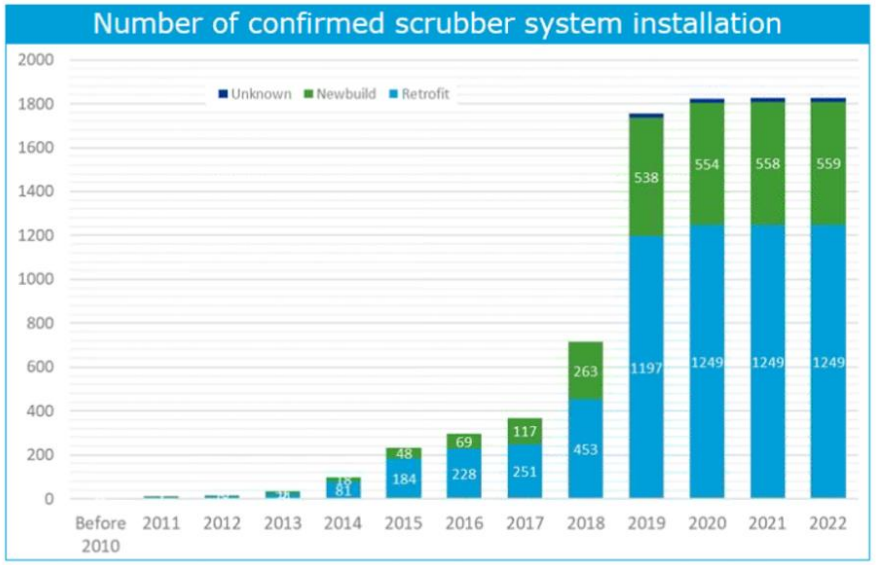


※ Order with Scrubber in Korean Shipyards(2016~2017)

Approx. 60% opt for Scrubber in Korean shipyard currently

Global Trends

○ IMO estimate(2016): 3,800 ships will install scrubber by 2020



Approx. 2,000 ships are installed Scrubber currently

What is your Strategy to comply with 2020 Global Sulphur Limit?

- ○ **Switch to MGO or blended fuels**
- ○ **Scrubber**
- ○ **Considering LNG and/or other alternative fuels**
- ○ **Spread the risk and have different compliance approaches**

Now is the time to make your decision!

Contents

Background

1992, UNFCCC

● **Objective – Stabilize greenhouse concentrations**

1997, KYOTO PROTOCOL

● **Result** - 2008~2012, Total GHG emission reduced by 5.2% (compared to 1990)

2015, Paris Agreement

● **Objective** - to fight against climate change to limit the increase in world temperature to 2 ℃, from the pre-industrial era

○ Request ICAO and IMO for their volunteered efforts to reduce GHG emissions

Initial IMO Strategy on Reduction of GHG emissions from ships

1) Key points on initial IMO strategy

Vision

IMO remains committed to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible in this century.

Levels of ambition (Target)

.1 to decline Carbon intensity through further phases of EEDI
.2 to reduce CO2 emissions per transport work by at least 40% by 2030 compared to 2008 (pursuing efforts towards 70% by 2050)
.3 to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008

Future measures

2) Future Measures to achieve IMO Strategy on reduction GHG

short-term measures

- further improvement of EEDI and SEEMP requirements
- develop technical and operational energy efficiency measures including consideration of indicators (AER, EESH, ISPI, FORS)
- establishment of an existing fleet improvement program
- speed optimization and speed reduction
- consider and analyze to address emissions of methane

mid-term measures

- consider MBM (GHG fund, ETS, incentives, port fee, etc.)
- technical cooperation activities such as under ITCP

long-term measures

- development of zero-carbon or fossil-free fuels

Impacts on the industry

- **Scrap of old ships, Increased new building**
- **Operation cost increased**
- **Emission trader and shipping financial experts will be needed because of Market Based Measures**
- **R&D is required on alternative fuels such as fuel cell, renewable energy, bio-energy**

Thank you for your attention!

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