



# ClassNK

## Recent Topics at IMO

November 2019

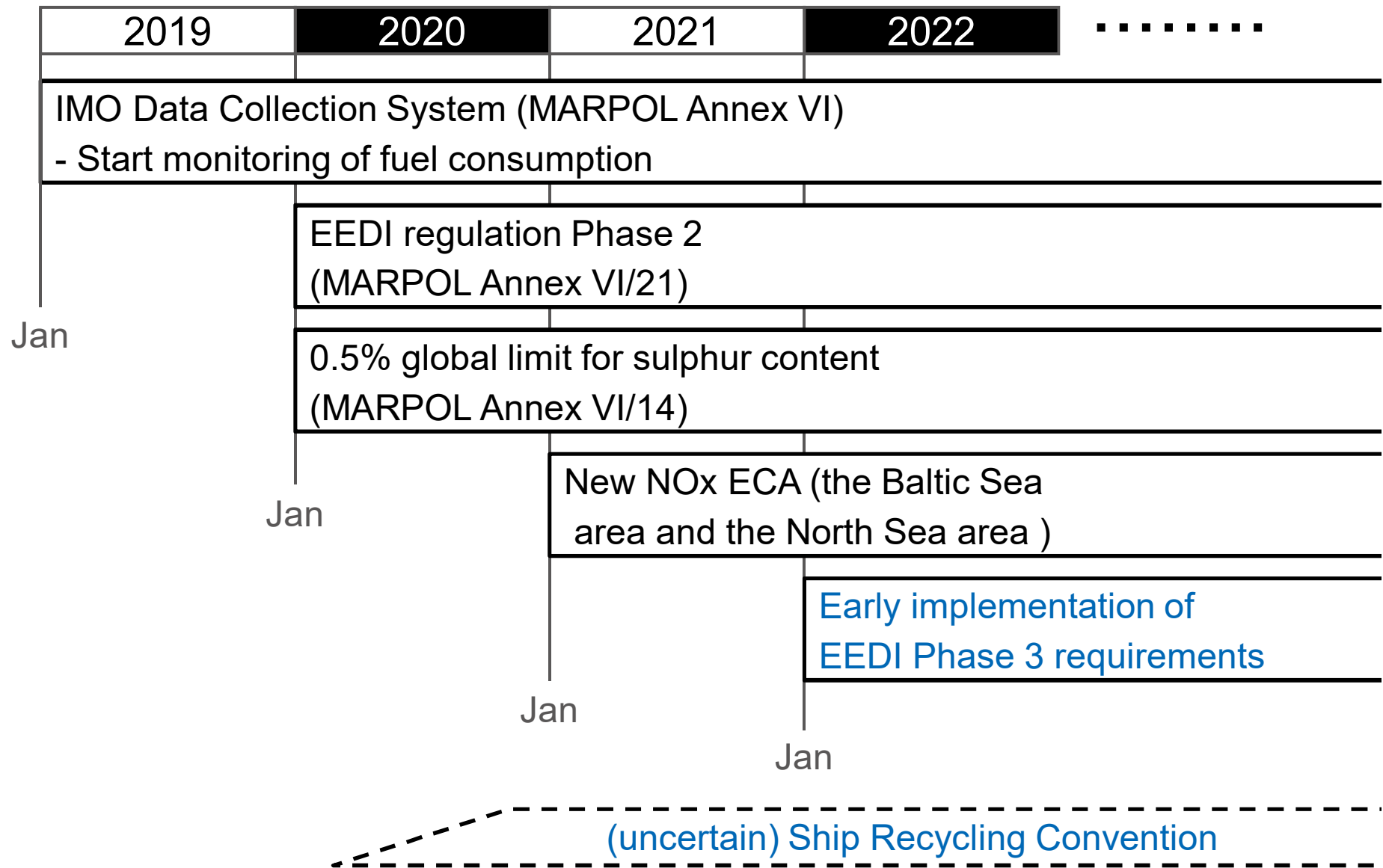
## Marine Environment Protection

- 1 Transition of Conventions
- 2 Measures to reduce Green House Gas emissions
- 3 Low-sulphur fuel oil regulations
- 4 Commissioning test of BWMS
- 5 Ship recycling convention
- 6 New work program

## Maritime Safety

- 1 Safety measures for the use of fuel oil
- 2 Maritime Autonomous Surface Ships (MASS)
- 3 Onboard Lifting Appliances

# Transition of regulations for marine environment protection **ClassNK**



## Background

Kyoto Protocol to UNFCCC

- Obligation to reduce CO<sub>2</sub> emissions by each Member States
- International aviation and shipping are outside the scope of the Protocol

## Actions taken by IMO

2013: Start EEDI and SEEMP regulations

2018: Initial IMO Strategy on the reduction of GHG emissions from ship was adopted

2019: Start monitoring of fuel consumption (DCS)

## Future consideration

- Enhancement for EEDI requirements
- Implementation of short-term measures on reduction of GHG
- Consideration on mid/long-term measures on reduction of GHG



# Measures to reduce GHG emissions

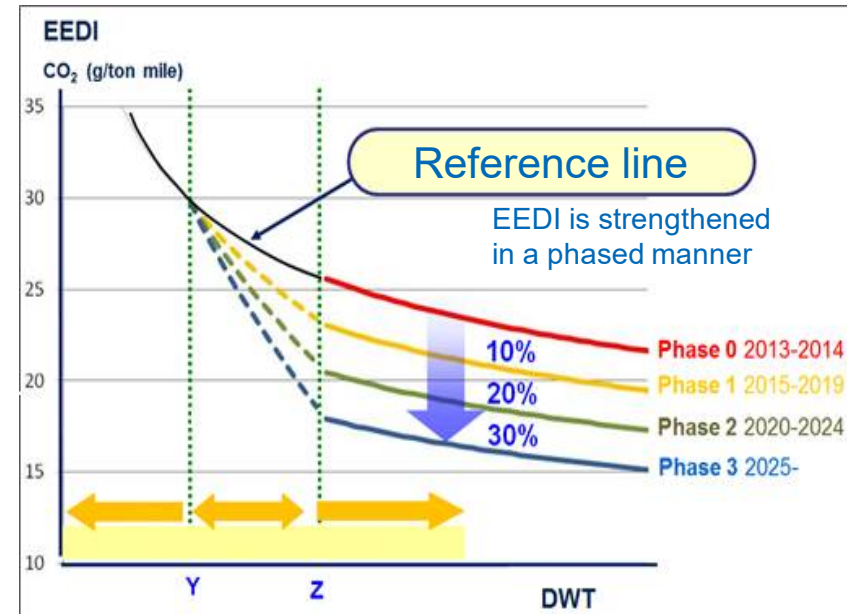
## Review of technological developments for EEDI

- Regulation 21.6 of MARPOL Annex VI requires a review of the status of technological developments which may contribute to improve EEDI
- Review within Correspondence Group is in progress

## Outcome of MEPC 74 (May 2019)

- Early implementation of Phase 3 from 2022: For Container ships, General Cargo ships, LNG carriers, LPG carriers ( $\geq 15,000$ DWT), and Cruise Passenger ships
- Enhancement of reduction rate of Phase 3 for Container ships by the sizes
- For ship types other than above, retain the current requirements of starting year in 2025 and 30% reduction.

\* The amendments will be adopted at MEPC75.



Reduction rate of Phase 3 for Container ships

Deadweight	Reduction factors
10,000~14,999	15~30%(Linear interpolation)
15,000~39,999	30%
40,000~79,999	35%
80,000~119,999	40%
120,000~199,999	45%
200,000~	50%



## Levels of Ambition and Guiding principles

Reduction of CO<sub>2</sub> emissions per transport work (compared to 2008)

by at least 40% by 2030, pursuing efforts towards 70% by 2050

Reduction of the total annual GHG (compared to 2008)

by at least 50% by 2050 whilst pursuing efforts towards phasing them out as called for in the Vision

## Immediate actions

- For new ships : Enhancement of EEDI requirements
- For existing ships : Consider short-term measures for the GHG reduction by 2023

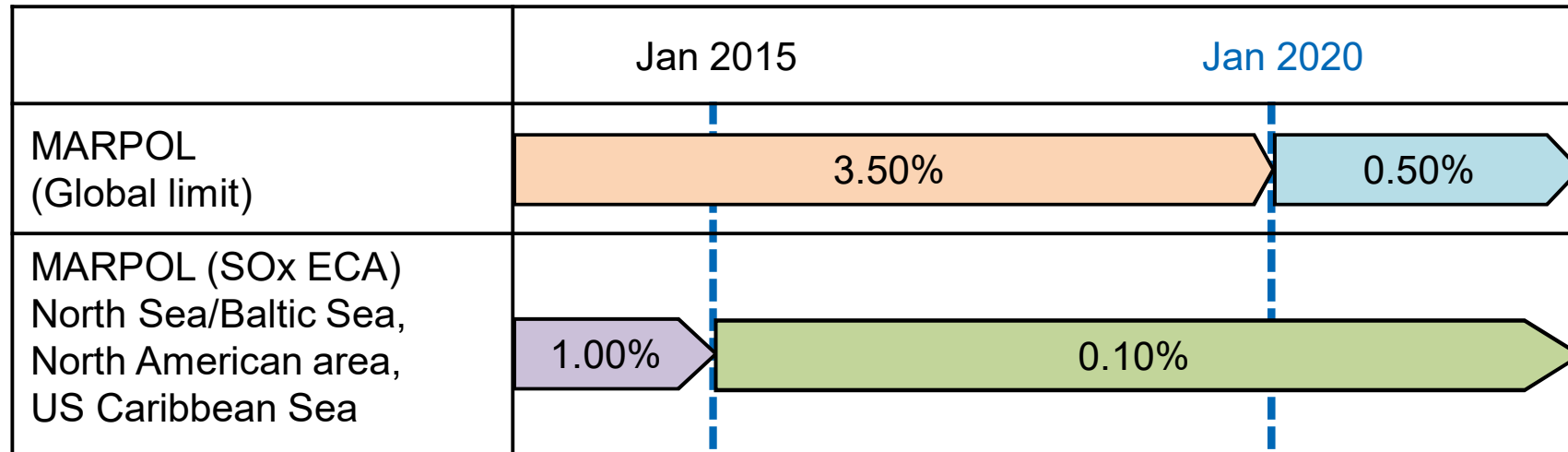
## Outcome of MEPC 74 (May 2019)

Short-term measures proposed at MEPC 74 and further discussion at next session:

- Energy Efficiency Existing Ship Index (EEXI)
- Annual Efficiency Ratio (AER)
- Maximum operational speed
- Operational efficiency indicator or Key performance indicator to be defined in SEEMP

# Low-sulphur fuel oil regulations

Implementation of 0.5% global limit for sulphur content in fuel oil



## Outcome of MEPC 73 (October 2018)

- Amendments to MARPOL Annex VI for a prohibition on the carriage of non-compliant fuel oil for combustion purpose with a sulphur content exceeding 0.50% were adopted
- Non-mandatory *Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI* (MEPC.1/Circ.878) was approved

## Outcome of MEPC 74 (May 2019)

### 2019 Guidelines for Consistent Implementation of the 0.50% Sulphur Limit under MARPOL Annex VI (Res. MEPC.320(74))

- Properties of fuel oil to be considered
- Notification of Fuel Oil Non-Availability Report (FONAR) to flag States and port States

### Guidance for Port State control on contingency measures for addressing non-compliant fuel oil (MEPC.1/Circ.881)

### Draft amendment to MARPOL Annex VI

- Sampling points to be fitted or designated for the verification of the sulphur content of fuel oil used on board ships.
- Fuel verification procedure for in-use fuel oil sample to be specified in Appendix VI of MARPOL Annex VI.

\* The amendments will be adopted at MEPC75.





## Sampling and analysis of treated ballast water at Commissioning

MEPC 70 : It was agreed that compliance with regulation D-2 of the BWM Convention should be validated in conjunction with commissioning of individual BWMS.

MEPC 73 : BWM.2/Circ.70 on *Guidance for the commissioning testing of ballast water management systems* was approved.



Sampling and analysis are not mandatorily required by BWM Convention or BWMS Code

Outcome of MEPC 74 (May 2019)

Draft amendments to BWM Convention were approved to specify the requirements to conduct commissioning testing including the sampling and analysis.

\* The amendments will be adopted at MEPC75.



## Ratification status of Hong Kong Convention

Effective 24 months after the condition is met	Condition to enter into force	Current Status
No. of States	15 States	13 States
Percentage of merchant ships registered to signing States	40%	29.42 %
Maximum annual ship recycling volume of the signing states during the preceding 10 years	More than 3% of GT registered to signing States	0.44 %

**India and Bangladesh, which are major recycling countries, are expressing their intent to ratify the Convention in near future**

## Marine plastic litter

IMO study on marine plastic litter from ships will be conducted to estimate the contribution to marine plastic litter by ships.



## AFS Convention

Considerations will be made on the controls of cybutryne already used on board existing ships



## Sewage treatment plant

Consideration will be made on the requirements for sewage treatment plant, such as sewage record-keeping, sensor and recording devices etc.



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## Outcome of MSC 100 (December 2018)

In view of the implementation of the 0.50% sulphur limit in 2020, it was agreed, from MSC 101, to consider the necessity to develop long-term solutions to enhance the safety of ships relating to the use of fuel oil.

## Outcome of MSC 101 (June 2019)

### Action plan endorsed by MSC 101

- Establish Correspondence Group to deal with development of safety measures
- Consider possible measures to enhance safety of ships related to the property of fuel oil, including flash point
- Finalize the measures at MSC 104, to be held in Spring 2021

### Interim measures adopted at MSC 101 (Res. MSC.465(101))

- Inform IMO of cases where fuel oil supplied on board fails to meet the requirements of flash point above 60 °C, specified in SOLAS regulation II-2/4.2.1
- Inform IMO of cases where fuel oil supplier had delivered fuel that jeopardize the safety of ships

While automation and unmanned operation of ships are being developed, international rules relating to these new technologies have not been developed



It was agreed to conduct Regulatory Scoping Exercise (RSE) to consider how to develop IMO instruments relating to MASS

## Overview of Regulatory Scoping Exercise

- IMO instruments to be considered: SOLAS, STCW, CORLEG, LL
- First step of RSE : Identify requirements to be applied to MASS
- Second step of RSE : Consider possible amendments to IMO instruments and/or develop new provisions

## Outcome of Intersessional meeting (September 2019)

Upon review of the outcomes of the first step, it was decided to proceed to the second step.

- ✓ Accidents of onboard lifting appliances has occurred frequently.
- ✓ There are no conventional requirements for survey and maintenance on onboard lifting appliances.

IMO is considering to newly establish regulations for onboard lifting appliances in SOLAS and new guidelines on maintenance of the appliances.

## Outcome of SSE 6 (March 2019)

- Lifting appliances be designed, constructed and installed in accordance with classification society's rules, and load tested and thoroughly examined
- Lifting appliances be maintained and tested based on the Guideline
- Lifting appliances having SWL of less than 1,000 kg can be exempted at the discretion of the Administration.



\* The discussion is expected to finalize at next session for submitting draft SOLAS and Guideline to MSC.

**THANK YOU**

**for your kind attention**