

MARITIME

# What's on the regulatory agenda

Including news from 71<sup>th</sup> session of MEPC,  
98<sup>th</sup> session of MSC and 29<sup>th</sup> IMO Assembly

**International Regulatory Affairs**

14 August 2017



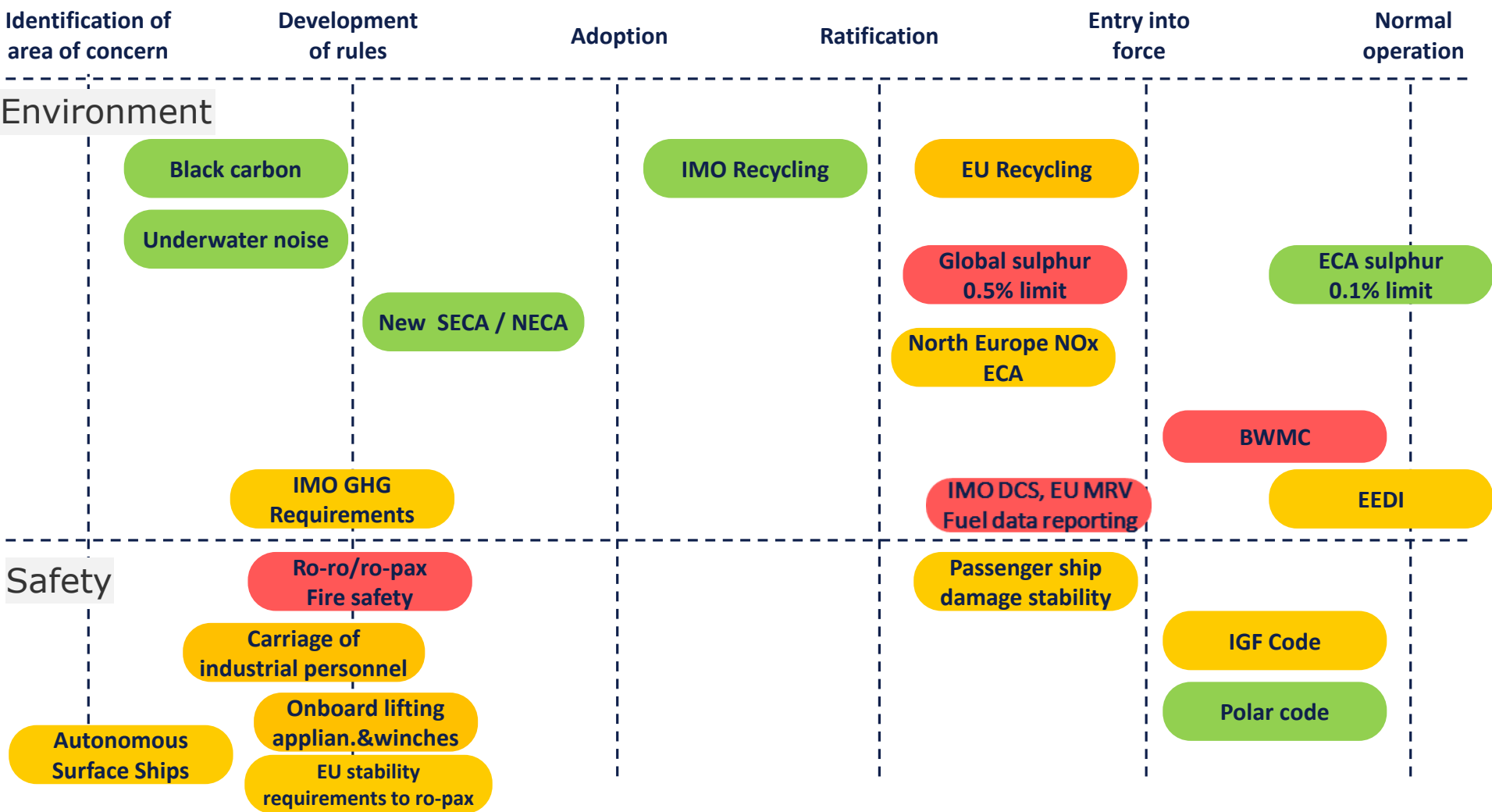
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- International Maritime Law and the IMO
- IMO regulations
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  - Environment
- Other regulatory bodies
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# What's hot on the Regulatory Agenda?

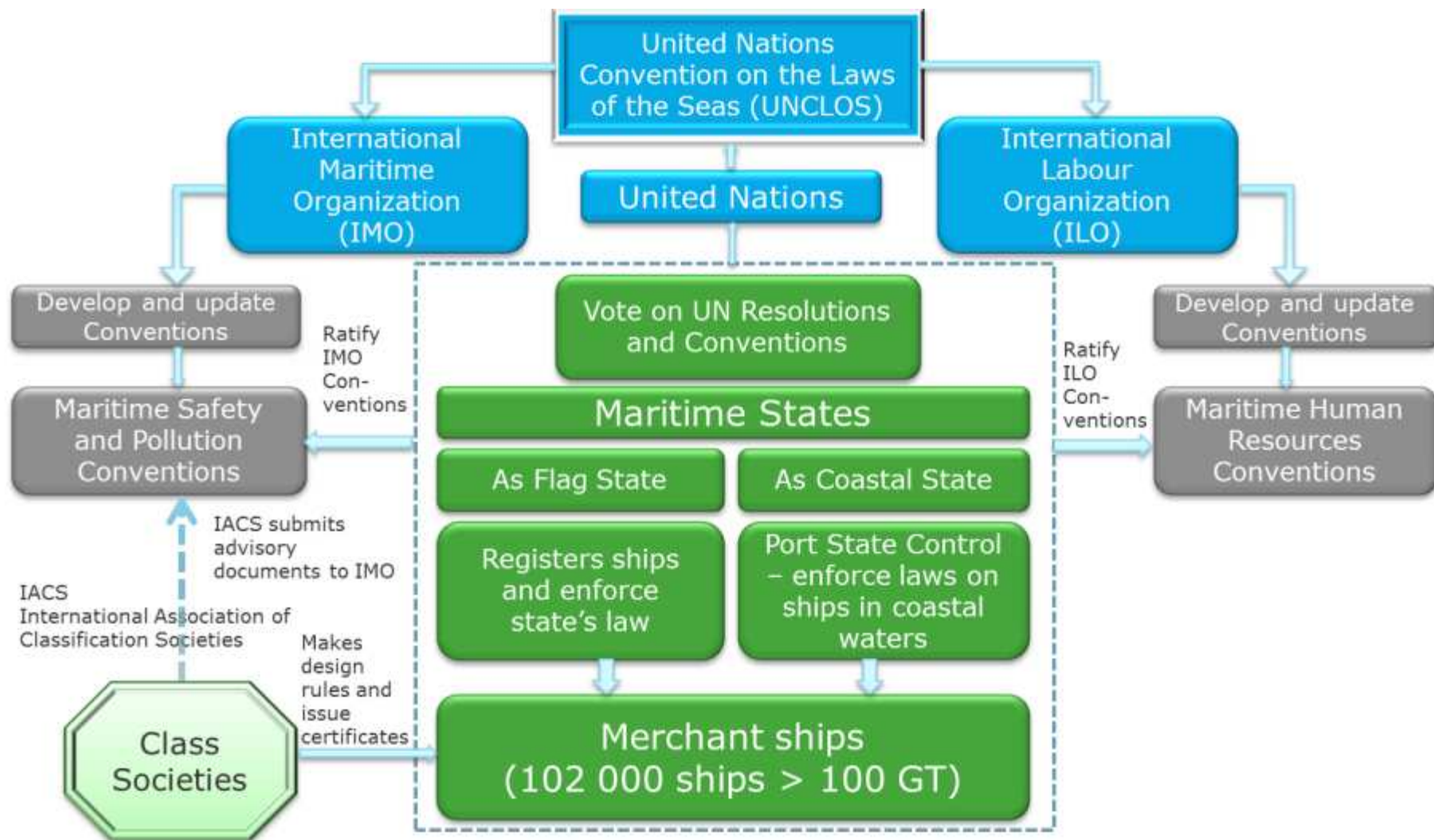




# International Maritime Law and the IMO

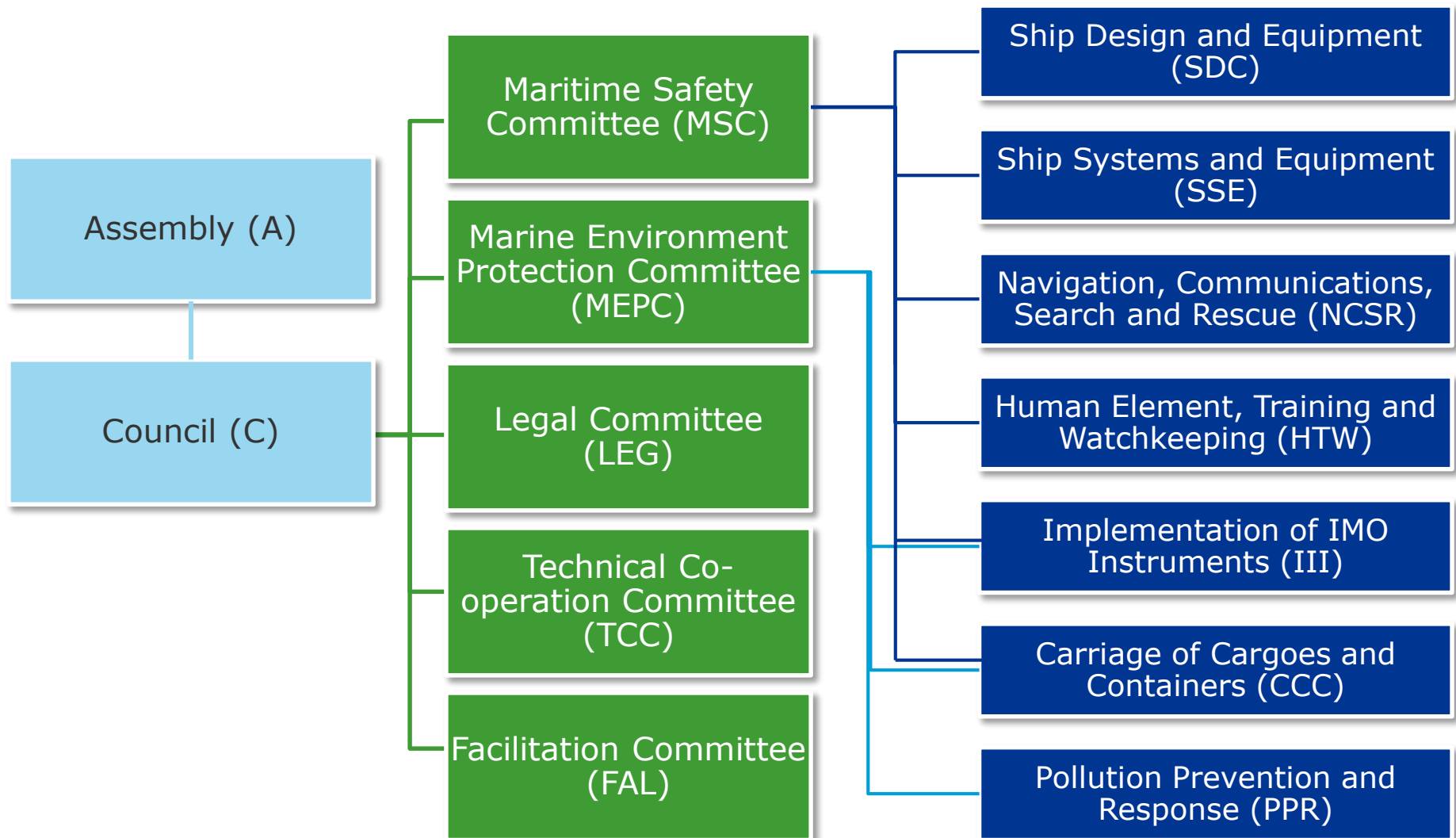


# International Maritime Law – An overview



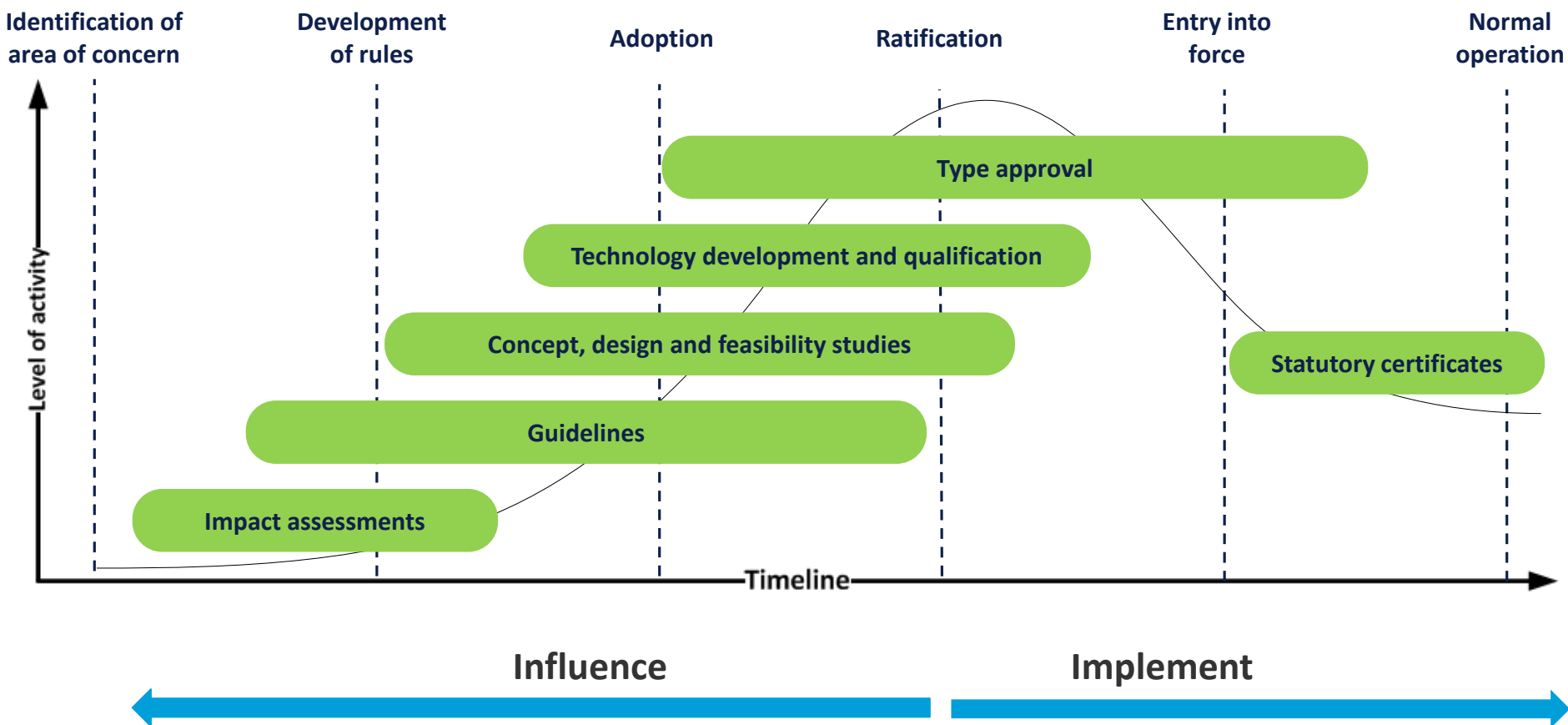


# Committees and Sub-committees of IMO





# Typical timeline for developing new regulations



\*Ratification is only applicable for new instruments, and not for amendments



# 2017 IMO Meeting programme (PROG/125/Rev.4)

16 – 20 January	SUB-COMMITTEE ON POLLUTION PREVENTION AND RESPONSE (PPR) – 4th session	9 – 13 October	39th CONSULTATIVE MEETING OF CONTRACTING PARTIES (LONDON CONVENTION 1972) 12th MEETING OF CONTRACTING PARTIES (LONDON PROTOCOL 1996)
30 January – 3 February	SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING (HTW) – 4th session	30 October – 3 November	IOPC FUNDS
13 – 17 February	SUB-COMMITTEE ON SHIP DESIGN AND CONSTRUCTION (SDC) – 4th session	23 – 24 November	COUNCIL – 29th extraordinary session
6 – 10 March	SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE (NCSR) – 4th session	27 November – 6 December	Assembly – 30th session
20 – 24 March	SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT (SSE) – 4th session	7 December	COUNCIL – 119th session
4 – 7 April	FACILITATION COMMITTEE (FAL) – 41st session	<b>INTERSESSIONAL MEETINGS*</b>	
24 – 28 April	IOPC FUNDS (24-25, 28)	3 – 5 May	Intersessional Working Group on Technical Cooperation (TC)
26 – 28 April	LEGAL COMMITTEE (LEG) – 104th session	8 – 12 May	27th meeting of the Editorial and Technical (E&T) Group (IMDG Code)
5 – 6 June	39th SESSION OF THE IMSO ADVISORY COMMITTEE	26 – 30 June	1st meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships
7 – 16 June	MARITIME SAFETY COMMITTEE (MSC) – 98th session	10 – 14 July	13th meeting of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters
3 – 7 July	MARINE ENVIRONMENT PROTECTION COMMITTEE (MEPC) – 71st session	18 – 22 September	28th meeting of the Editorial and Technical (E&T) Group (IMDG Code)
17 – 19 July	TECHNICAL COOPERATION COMMITTEE (TC) – 67th session	2 – 6 October	24th meeting of the ICAO/IMO Joint Working Group on Search and Rescue
24 – 28 July	COUNCIL – 118th session	23 – 27 October	2nd meeting of the Intersessional Working Group on Reduction of GHG Emissions from Ships
11 – 15 September	SUB-COMMITTEE ON CARRIAGE OF CARGOES AND CONTAINERS (CCC) – 4th session	16 – 20 October	23rd session of the PPR Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 23)
25 – 29 September	SUB-COMMITTEE ON IMPLEMENTATION OF IMO INSTRUMENTS (III) – 4th session		
17 – 18 October	40th SESSION OF THE IMSO ADVISORY COMMITTEE		



## Terms related to Application and Implementation

Contract of Building, Construction (Keel laying or similar stage) and Delivery (Built)

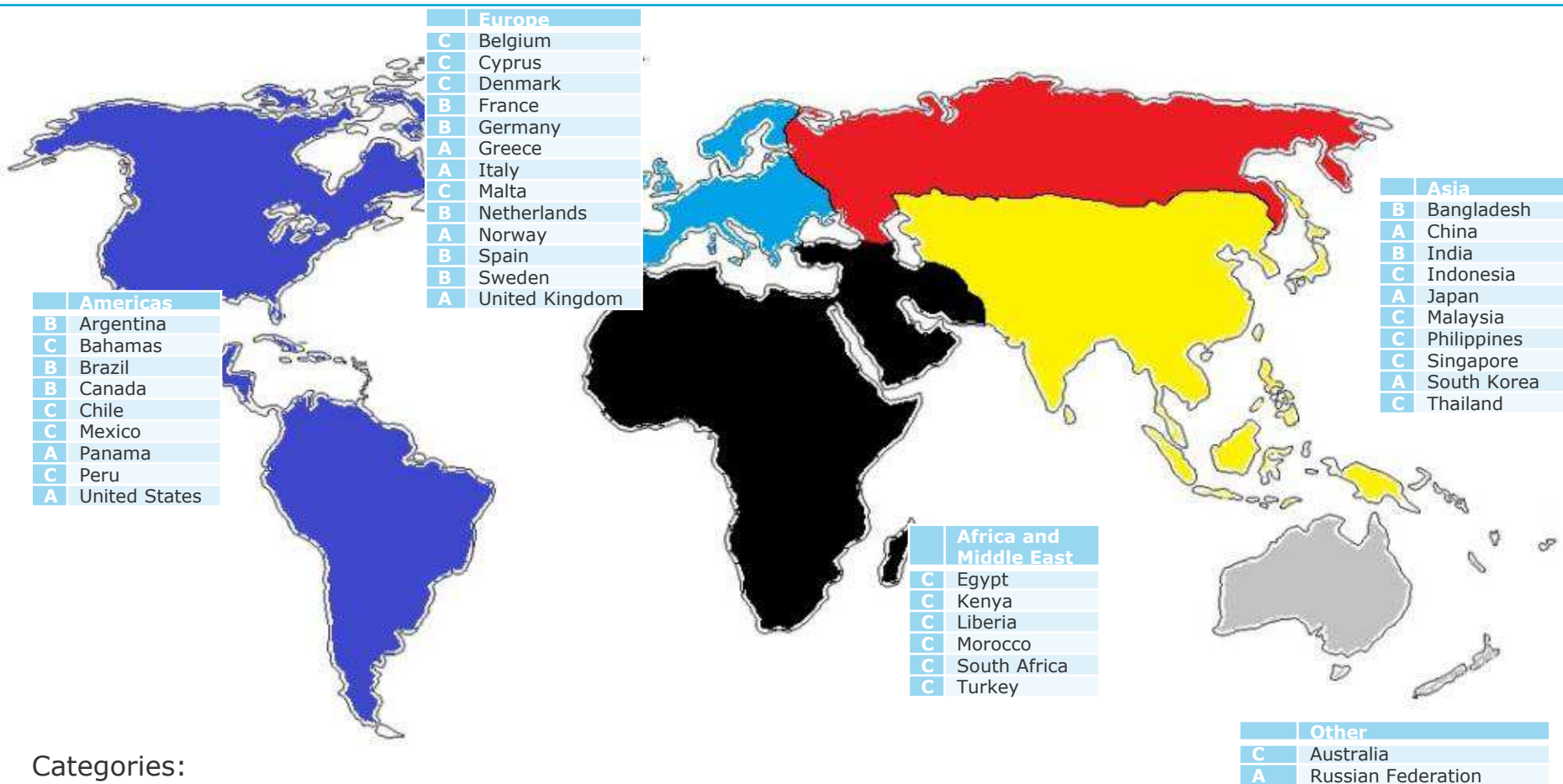
Understanding of Statutory Implementation Scheme When three key dates are mentioned

Implementation scheme	Conclusion on application					
	Contract	NB (C)	Construction (K)	Delivery (D)		
		_____	_____			
Actural case Scenario					<b>(D)</b>	YES
Actural case Scenario		<b>(C)</b>	<b>(K)</b>	<b>(D)</b>		YES
Actural case Scenario		<b>(C)</b>	<b>(K)</b>	<b>(D)</b>		YES
Actural case Scenario	<b>(C)</b>		<b>(K)</b>	<b>(D)</b>		NO
Actural case Scenario	<b>(C)</b>		<b>(K)</b>	<b>(D)</b>		NO



# The 40 IMO Council Member States by regions

– Elected November 2015



## Categories:

A - States with the most significant stakes in international shipping services

B - States with the biggest share of international seaborne trade

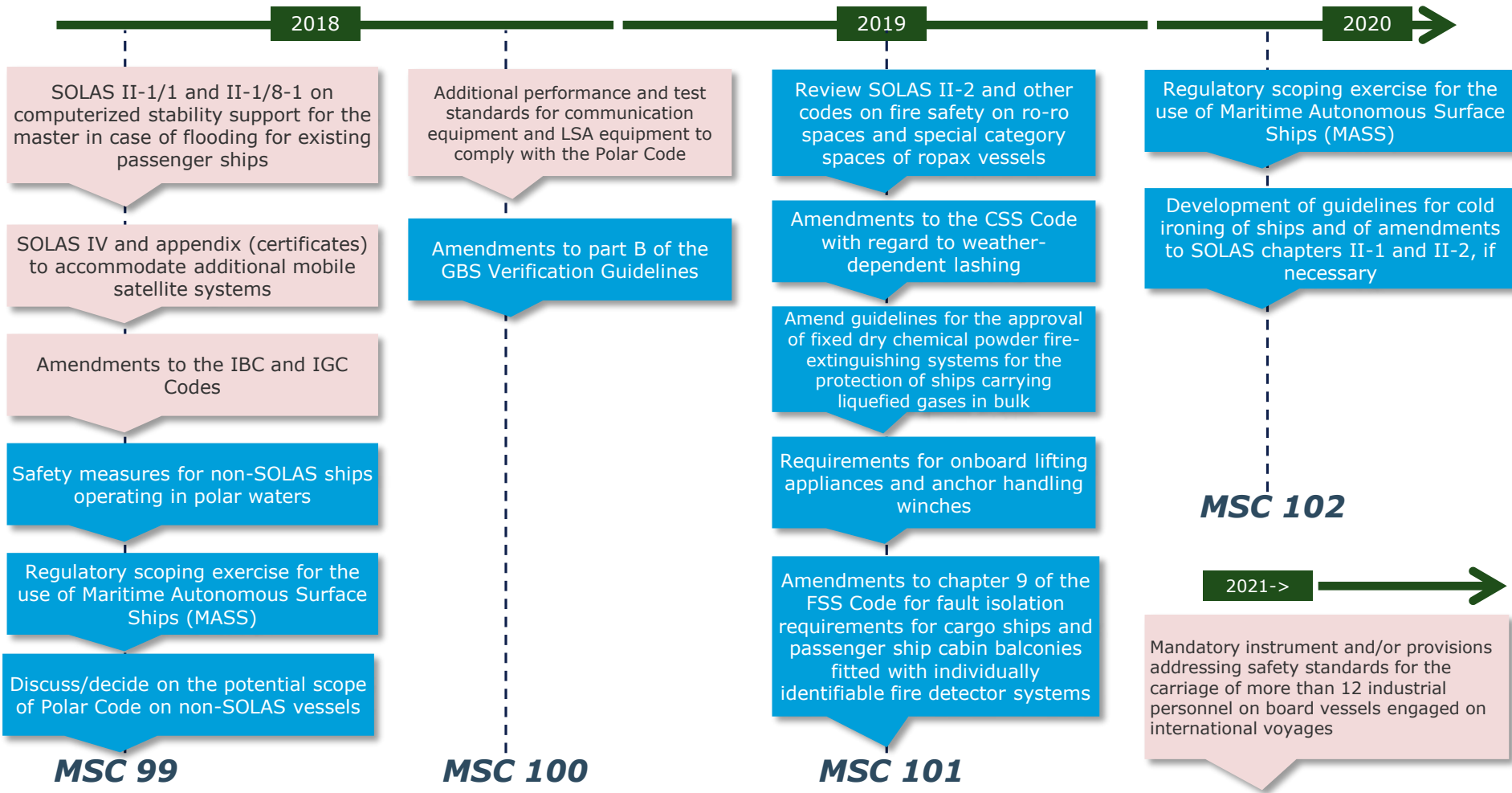
C - States which have special interests in maritime transport or navigation and ensure representation in all key geographical regions of the world



# Safety

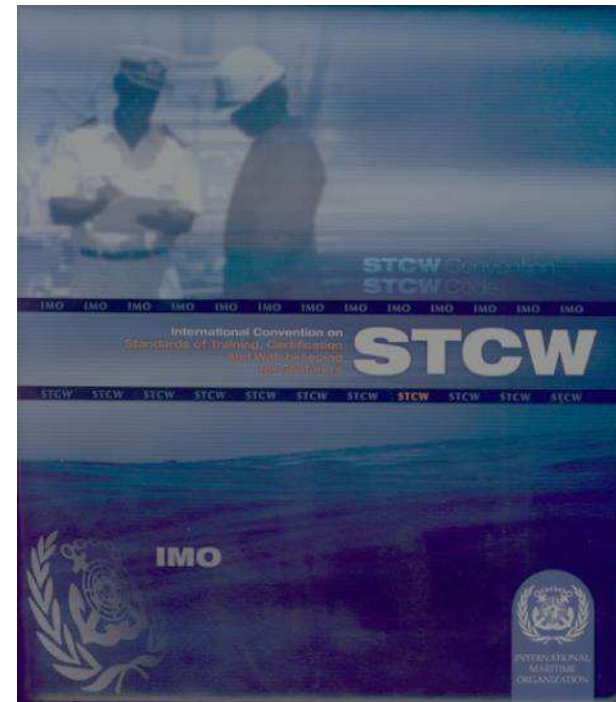
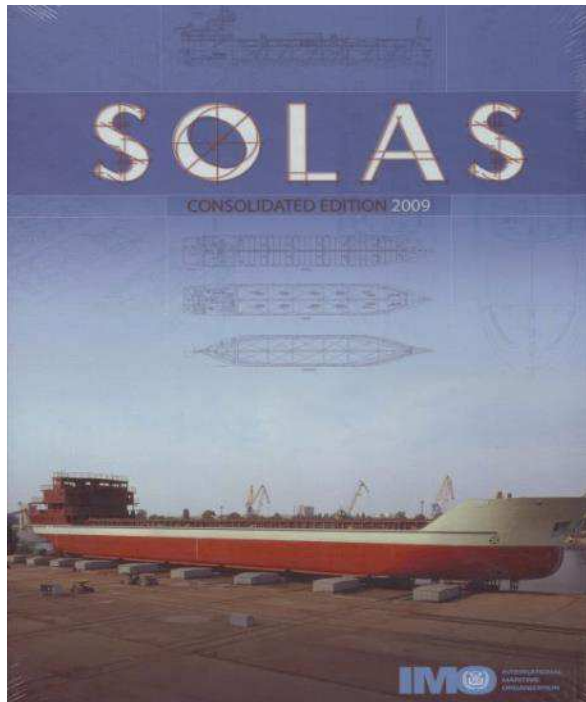


# Major IMO decisions – Safety





# SOLAS and STCW





## Four year cycle for SOLAS amendments

MSC adopted at its 93<sup>rd</sup> session *Guidance on entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments* resulting in a four-year cycle for the entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments

The first four-year cycle commence on **1 January 2016** with a corresponding entry-into-force date of **1 January 2020**

Amendments after **1 July 2018** would normally enter into force not earlier than **1 January 2024**

Any amendment adopted in **2014** or **2015** enters into force on a date as may be agreed by MSC

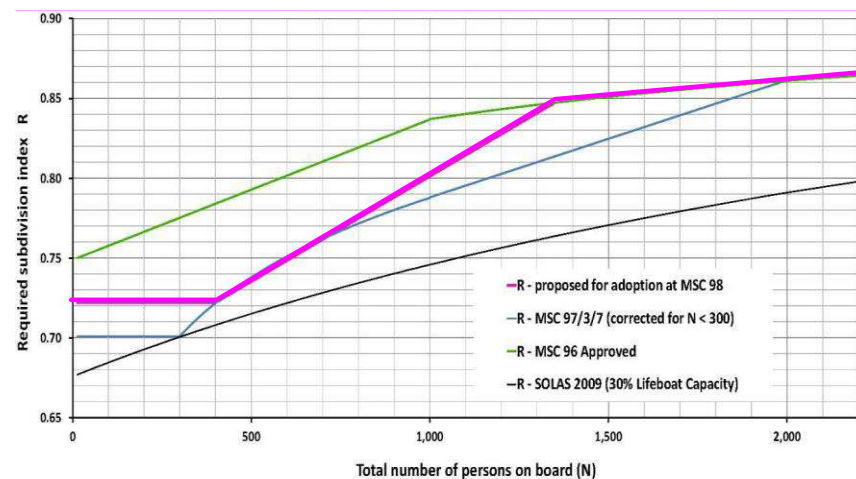
Amendments outside a four-year entry-into-force interval should only be allowed under *exceptional circumstances*. The four-year cycle of entry into force does not apply to instruments which have an already agreed set cycle of amendment (e.g. ESP, IMDG and IMSBC Codes).





## SOLAS II-1: Subdivision and damage stability

- Subdivision and damage stability regulations in particular related to passenger ships:
  - periodical operation and inspection of watertight doors in passenger ships;
  - new required subdivision index  $R$ ;
  - watertight integrity;
  - survivability of passenger ships;
  - prevention and control of water ingress.
- Revised Explanatory Notes for use with the 2020 included



### Impact:

The relaxation in SOLAS II-1 for doors "Type A" is removed and the revised guidance MSC.1/Circ.1564 covers those doors which need to be temporarily opened.

**Applicable for passenger ships contracted from 1 January 2020**

### Outcome:

MSC 98 adopted amendments to SOLAS II-1



## SOLAS II-1: Watertight doors

- Regulation 22 amended:
  - *Watertight doors below the bulkhead deck in passenger ships and freeboard deck in cargo ships ... shall be kept closed when the ship is at sea...*
- Some watertight doors may still need to be opened during the course of a voyage for essential work to be carried out.



### **Impact:**

The relaxation in SOLAS II-1 for doors "Type A" is removed and the revised guidance MSC.1/Circ.1564 covers those doors which need to be temporarily opened.

**Applicable from 1 January 2020**

### **Outcome:**

MSC 98 adopted amendments to SOLAS II-1



## SOLAS II-2: Windows facing survival craft on passenger ships

- Reg. 9.4.1.3.5 (new):  
"For ships carrying more than 36 passengers, windows facing survival craft, embarkation and assembly stations, external stairs and open decks used for escape routes, and windows situated below liferaft and escape slide embarkation areas shall have fire integrity as required in table 9.1. Where automatic dedicated sprinkler heads are provided for windows, "A-0" windows may be accepted as equivalent... "



### ***Impact:***

On passenger ships carrying 36 passengers **constructed on or after 1 January 2020** windows facing survival craft etc. need to be at least "A-0" class

### ***Outcome:***

MSC 98 adopted amendments to SOLAS II-2.



## SOLAS II-2: Definition of vehicle carrier

- Reg. 3.56:  
"Vehicle carrier means a cargo ship which only carries cargo in ro-ro spaces or vehicle spaces, and which is designed for the carriage of unoccupied motor vehicles without cargo, as cargo."

=> see also amended  
SOLAS II-2/20-1.2.1



### **Impact:**

SOLAS II-1/20-1 may be applied to vehicle carriers carrying motor vehicles with compressed hydrogen or natural gas in their tanks for their own propulsion as cargo even when the cargo space is a ro-ro space. Applicable to **new and existing passenger ships** from 1 January 2020

### **Outcome:**

MSC 98 adopted amendments to SOLAS II-2.



# SOLAS II-2/3, 13 and 18 – evacuation analysis for passenger ships

- SOLAS II-2/13 has been amended with requirements for evacuation analysis of escape routes early in the design process.
- Ro-ro passenger ships that have conducted such an evacuation analysis according to previous requirements need not be re-evaluated.
- New guidelines on evacuation analysis were also approved by the Committee.

*MSC.1/Circ.1533 Revised guidelines on evacuation analysis for new and existing passenger ships*

## **Impact:**

The requirement is applicable for new passenger ships carrying more than 36 passengers, constructed after **1 January 2020**. Also applicable for ro-ro passenger ships constructed after **1 January 1999**.



## **Outcome:**

MSC 96 adopted amendments to SOLAS II-2.



## SOLAS II-2: Protection of vehicle, special category and ro-ro spaces

- Reg. 20.2.1.2 (new):  
On all ships, vehicles with fuel in their tanks may be carried in spaces other than vehicle, special category or ro-ro spaces, provided that all the following conditions are met...
- Reg. 20-1.2.1:  
“In addition to complying with the requirements of regulation 20, as appropriate, **vehicle carriers constructed on or after 1 January 2016** intended for the carriage of motor vehicles with compressed hydrogen or compressed natural gas in their tanks for their own propulsion as cargo shall comply with the requirements in paragraphs 3 to 5 of this regulation.”

### ***Impact:***

Application of IMDG Code and SOLAS II-2/19 to “ordinary spaces”, spaces other than vehicle, special category or ro-ro spaces, when transporting motor vehicles with fuel in their tanks for their own propulsion. **Applicable from 1 January 2020**

### ***Outcome:***

MSC 98 adopted amendments to SOLAS II-2.



# Amendments to SOLAS II-1 to make IGF Code mandatory

- Regulation 2 – Definitions (IGF Code and Low-flashpoint fuel)
- Regulation 55 – Alternative design and arrangements
- Regulation 56 – Application
- Reg. II-1/56.4 describes:
  - One ship, one Code , i.e. the IGF Code should not apply to IGC Code ships, even in the case of IGC Code ships using low-flashpoint fuels that are not cargo
- SOLAS II-1/56.5:
  - Exempts government-operated ships
  - Regulation 57 – Requirements for ships using low-flashpoint fuels
- SOLAS appendix to the Annex to SOLAS to cover IGF Code certification
- Consequential amendments to the appendix to the annex to 1978 SOLAS protocol (CCC) and the SOLAS 1988 Protocol (CCC, CSSC, PSSC) re. IGF certification
- Also Amendments to Regulation II-2/4.2.1 Limitations in the use of fuel

[More about the IGF code](#)



## **Impact:**

Amendments to mandatory instruments will be **in force from 1 January 2017**

## **Outcome:**

Adopted at MSC 95 in 2015  
Amendments to SOLAS II-1  
New IGF Code



## SOLAS II-2 Fire fighting - amendments

- SOLAS Chapter II-2, paragraph 10 *Fire-fighters outfit* has been amended with reference to the FSS Code regarding **self-contained breathing apparatus**.
  - All ship will have to comply with the revised FSS Code requirements for breathing apparatus latest by **1 July 2019**
- New subparagraph 10.4 *Fire-fighter's communication* has been added for ships constructed **before 1 July 2014**:
  - Two two-way portable radiotelephone apparatus of an explosion proof or intrinsically safe type have to be provided for each fire parties (as in Reg. III/37) not later than first survey after **1 July 2018**



### **Impact:**

**All ships** to comply with revised requirements for breathing apparatus (audible low level alarm, visual reading) latest by **1 July 2019**.

**Ships constructed before 1 July 2014:** communication apparatus to be provided not later than first survey after **1 July 2018**.

### **Outcome:**

Amendments to SOLAS II-2, adopted by MSC.338(91) in 2012.



# Amendments to SOLAS II-2 and FSS Code: Fire safety

- SOLAS II-2/Reg. 10.5.1.2.2
  - Foam-type extinguisher (135 l foam or 50 kg dry powder) for fire-protection of boilers that are protected by fixed water-based local application fire-extinguishing systems are no longer needed.
- FSS Code, Chapter 13 (Arrangement of means of escape), para. 2.1.2.2.2.1
  - Clarification of the crew distribution in public spaces, since the idea is not to fill spaces to 1/3 of their capacity with crew
  - These calculations are only applicable to passenger ships



### ***Impact:***

Applicable from 1 January 2020

### ***Outcome:***

Amendments to SOLAS II-2 and FSS Code Ch 19 adopted by MSC 97 in 2016.



## SOLAS II-2 Power ventilation systems

- Protection of vehicle, special category and ro-ro spaces
  - To clarify that a specified number of air changes is required for power ventilation systems on passenger and cargo ships, except where an air quality control system\* is provided
  - Editorially amended to clarify that also for cargo ships the ventilation system for these spaces shall be entirely separate from other ventilation systems



### ***Impact:***

In force from **1 January 2017**

### ***Outcome:***

Amendment to SOLAS  
Regulation II-2/20.3.1.2

- \* MSC.1/Circ.1514 Performance standard, functional requirements and system requirements for the assessment of smoke management systems
- See also MSC.1/Circ.1515: Revised design guidelines and operational recommendations for ventilation systems in ro-ro cargo spaces



# SOLAS III/LSA Code: Lifeboat release and retrieval systems – On-load release mechanism

- New requirements of the amended LSA Code were applicable from **1 July 2014** for lifeboat on-load release mechanism.
- Amendments to LSA Code on design criteria of lifeboat release gear mechanism entered into force **1 January 2013**.
- Criteria of hook stability, locking devices and hydrostatic interlock (if provided) applies to all ships
- Some Flags apply SOLAS Reg. III/1.5 also to rescue boats with on-load release mechanism.



## ***Impact:***

New requirements shall be met no later than the first scheduled dry-docking after **1 July 2014**, but not later than **1 July 2019** (SOLAS Reg. III/1.5)

Evaluation of existing systems was to be completed on **1 July 2013**

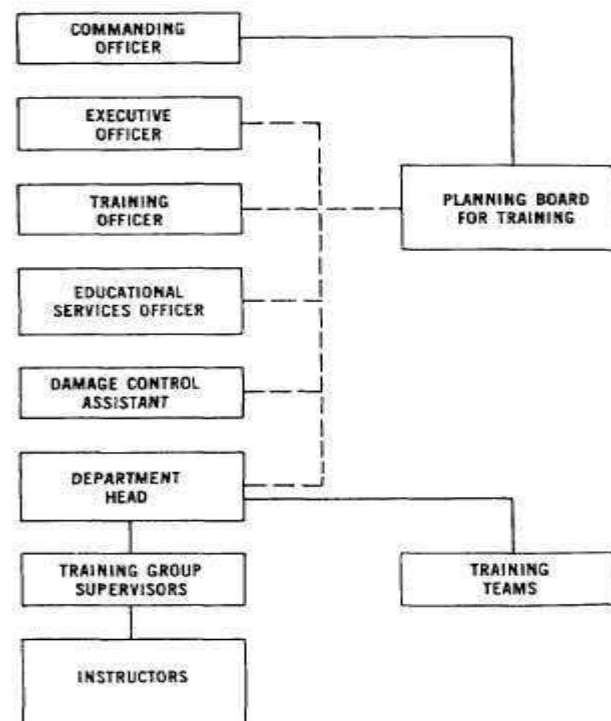
## ***Outcome:***

Amendments to SOLAS III/LSA Code adopted at MSC 89 (May 2011)



## SOLAS III: Damage control drills

- Reg. 1.4: Application to all passenger ships, i.e. also for existing passenger ships
- Reg. 30: On all (existing and new) passenger ships damage control drills to be conducted at least **every three months** as required in SOLAS II-1/19-1
- Reg. 37: On passenger ships only, the muster list shall show duties assigned to the different members of the crew for damage control for flooding emergencies.



### **Impact:**

Damage control drills need to be reflected in ship operations on all passenger ships on a regular basis with differing scenarios and at least once a year with shore-based support. Applicable to **new and existing passenger ships** from 1 January 2020.

### **Outcome:**

MSC 98 adopted amendments to SOLAS III,



## SOLAS III – lifeboats and rescue gear

- SOLAS III/3 and III/20 have been amended with requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats, rescue boats, launching appliances and release gear.
- Original Equipment Manufacturers or their legal followers (when the OEM no longer exists) need not be authorized when they are servicing equipment of their own origin.
- Service providers of which certified personnel conducts thorough examinations and operational tests may be the ship operator provided that it is authorized as required.



### ***Impact:***

The amendments enter into force 1 January 2020.

### ***Outcome:***

MSC 96 adopted amendments to SOLAS Ch III.



## SOLAS V-19: Safety of Navigation – ECDIS

- Mandatory Electronic Chart Display and Information System (ECDIS) for different ship types and sized constructed in the period 2012 to 2018
- Use of electronic navigational charts will probably reduce the frequency of groundings by more than one third
- It is expected that ECDIS will reduce the risks related to several generic accident scenarios such as groundings, collision and contact



### ***Impact:***

From **1 January 2011** ECDIS is accepted as meeting the chart and nautical publication carriage requirements

Gradual implementation for different ship types and sizes based on construction date, **1 July 2012** to **1 July 2018**

### ***Outcome:***

Amendment to SOLAS Regulation V-19

Amended by MSC.282(86).



# Safety of Navigation – ECDIS

## Gradual implementation: ship types and sizes



Resource: [www.admiralty.co.uk](http://www.admiralty.co.uk)



## SOLAS XIV and Polar Code adopted

- **Polar Code mandatory from 1 January 2017**
- Considers hazards which may lead to elevated levels of risk due to increased probability of occurrence, more severe consequences, or both:
  - Safety and environmental requirements
  - One mandatory (I-A safety and II-A PP) and one recommendatory (I-B safety and II-B PP) Part

[More about the Polar Code](#)

### **Impact:**

Apply **from 1 January 2017** to **passenger ships and cargo ships of 500 GT and above** only

Polar Ship Certificate required

Not applicable to domestic shipping



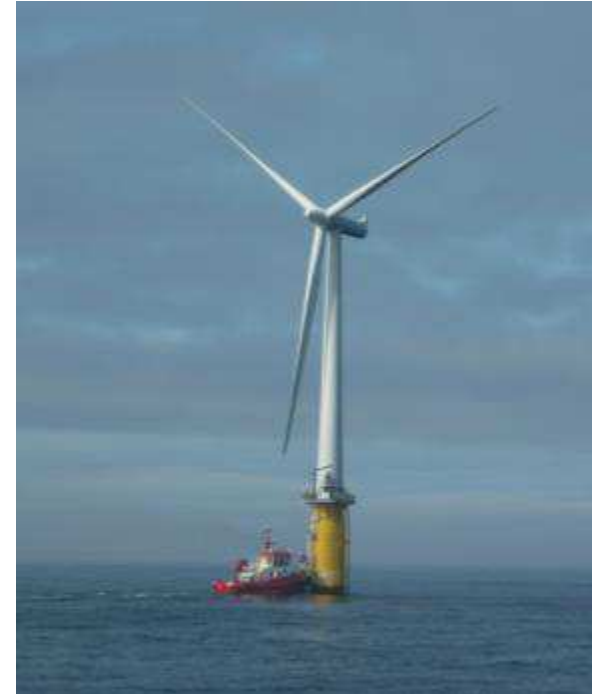
### **Outcome:**

New SOLAS Chapter XIV and Polar Code adopted by MSC 94



# Carriage of more than 12 industrial personnel (IP) on board vessels on international voyages

- MSC 97 decided to make a mandatory instrument by a new SOLAS Chapter XV and a new IP Code
- IP shall not be considered as passengers as defined in SOLAS
- To bridge current SOLAS text with the new Chapter XV it is issued interim recommendations
- Offshore activities is defined, in addition to recommended qualifications for IP
- It is recommended that the 2008 SPS Code or other standards may be applied when certifying the vessels



## ***Impact:***

New SOLAS Ch XV and IP Code to be developed applicable to all vessels on international voyages, regardless of size.  
Expected entry into force **1 January 2024 at the earliest.**

## ***Outcome:***

MSC resolution with interim recommendations was adopted at MSC 97.



# Amendments to STCW due to the IGF Code

## 1978 STCW Convention

- New Regulation V/3 – Mandatory minimum requirements for the training and qualifications of masters, officers, ratings and other personnel on ships subject to the IGF Code

## STCW Code

- New section A-V/3 with training and certification requirements in part A of the Code

In force from **1 January 2017**

- **STCW.7/Circ.23** Amendments to the Interim guidance on training for seafarers on ships using gases or other low-flashpoint fuels
- **STCW.6/Circ.11** Amendments to part B of the Seafarers' Training, Certification and Watchkeeping (STCW) Code (New section B-V/3)



## Amendments to the 1978 STCW Convention

- Reg. V/2: Related to passenger ship-specific safety training:
  - Revised training requirements for masters, officers, ratings and other personnel serving on board passenger ships engaged on international voyages (to be refreshed at intervals not exceeding five years)
- Reg. V/4: Related to the Polar Code:
  - Revised training requirements for masters and deck officers on board ships operating in polar waters



### ***Impact:***
















Applicable for passenger ships and ships operating in polar waters from 1 July 2018.

### ***Outcome:***

Amendments to STCW Regulations V/2 and V/4 adopted at MSC 97 in 2016.



## Amendments: 1978 STCW Convention / Code

Ice conditions	Tankers	Passenger ships	Other
			
Ice free	 Not applicable	 Not applicable	 Not applicable
Open waters	 Basic  Basic training for master, chief mate and officers in charge of a navigational watch	 Basic  Basic training for master, chief mate and officers in charge of a navigational watch	 Not applicable
Other waters	 Basic   Advanced  Basic training for officers in charge of a navigational watch Advanced training for master and chief mate	 Basic   Advanced  Basic training for officers in charge of a navigational watch Advanced training for master and chief mate	 Basic   Advanced  Basic training for officers in charge of a navigational watch. Advanced training for master and chief mate



## Goal Based Ship construction standards (GBS)

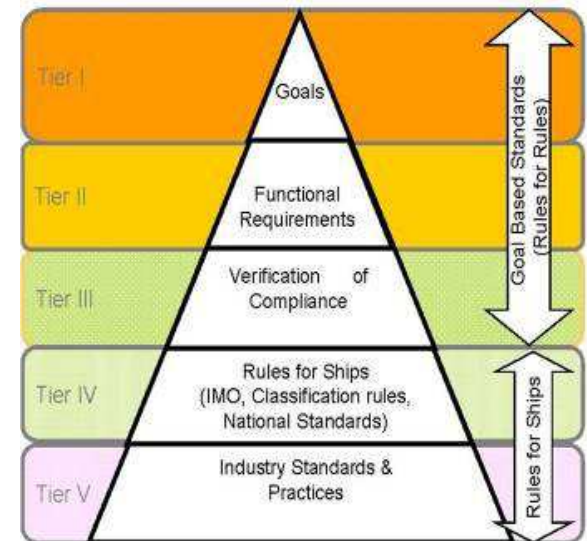
- SOLAS II-1/3-10 defines goals and functional requirements. Future prescriptive regulations and class rules should meet these requirements.
- A Ship Construction File (SCF)\* is required to be provided upon delivery and kept onboard throughout the ship's service life. The SCF should describe how the functional requirements are met.
- The IACS Harmonised Common Structural Rules have been in force since **1 July 2015**. MSC 96 in 2016 confirmed that the rules for oil tankers and bulk carriers submitted by 12 IACS members are in accordance with SOLAS II-1/3-10 and MSC.296(87)\*\*

\*MSC/Circ.1343: Guidelines for the information to be included in a Ship Construction File (SCF).

\*\*MSC 296(87): Guidelines for verification of conformity with goal-based ship construction standards for bulk carriers and oil tankers (Under revision - new version in 2018)

### **Impact:**

Applicable for Bulk Carriers above 150 m (excluding ore carriers and combination carriers) and Oil Tankers above 150 m with building contract dated on or **after 1 July 2016, keel laying 1 July 2017 or delivery after 1 July 2020**



### **Outcome:**

New SOLAS Reg. II-1/3-10 adopted at MSC 87 (2010)

MSC 96 confirmed that rule sets from 12 IACS members are in conformance.



## Cyber security

- MSC 98 agreed that there is an urgent need to raise awareness on cyber risk threats and vulnerabilities
- An important part of achieving this would be to consider cyber risk **as part of existing safety management systems** (ISPS and ISM codes)
- MSC 98 adopted resolution MSC.428(98) on *Maritime cyber risk management in management systems*
- The guidelines are not mandatory but Member Governments are encouraged to apply them



### Impact:

Cyber risks should be addressed in safety management systems no later than the first annual verification of DoC after 1 January 2021. This is a non-mandatory requirement.

### Outcome:

MSC 98 adopted the recommendatory MSC-FAL.1/Circ.3 superseding the interim guidelines



# Mandatory Codes

Polar Code

Code on Noise Levels on-board Ships

Fire Safety Systems (FSS) Code

Life Saving Appliances (LSA) Code

International Maritime Solid Bulk Cargoes (IMSBC) Code

International Maritime Dangerous Goods (IMDG) Code

IMO Instruments Implementation Code (III Code)

International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code)

International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)

International Code of Safety for High-Speed Craft (HSC Code), 1994 and 2000

International Safety Management (ISM) Code  
Code for Recognized Organizations (RO Code)

International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011 (2011 ESP Code)

International Code of safety for ships using gases or other low-flashpoint fuels (IGF Code)



## Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code)

- The OSV Chemical Code aims to replace the existing IMO Resolution A.673(16) on transporting chemicals in bulk on offshore support vessels.
- The new OSV code allows the carriage of all types of chemicals listed in the IBC code and MEPC.2 Circulars.
- Existing vessels keel laid on or after 19 April 1990 until 1 July 2018 have been proposed to allow to carry Ship Type 2 cargoes, given that they comply with the rest of the OSV code.



### ***Impact:***

The Code applies to offshore support vessels (OSV), keel laid on or after 1 July 2018. It will not be mandatory, but flag states may opt to apply it.

### ***Outcome:***

The draft Code was approved at MSC 98, and is expected to be adopted at Assembly 30 (November 2017).



# FSS Code and SOLAS II-2/3 – foam firefighting appliances for helicopter facilities

- SOLAS chapter II-2/3 provides new definitions on helicopter landing area and winching area.
- New provisions in SOLAS II-2/18 require new vessels with helicopter landing areas to be provided with foam firefighting appliances.
- A new chapter 17 to the FSS Code details the requirements for foam firefighting appliances for helicopter facilities
- Amendments to chapter 8 the FSS Code for the prevention of internal corrosion of sprinklers and clogging or blockage of water mist sprinklers due to water quality.

*MSC.1/Circ.1523 on Early implementation of the new chapter 17 of the FSS Code was approved.*



## ***Impact:***

The amendments **enter into force 1 January 2020**, applicable to vessels with helicopter landing area.

## ***Outcome:***

MSC 96 adopted amendments to SOLAS Ch II-2/3 and FSS Code.



# Polar Code - International Code for Ships Operating in Polar Waters

- New category A and B ships
  - Damage stability after ice related damages;
  - Escape routes (all new ships);
  - Enclosed or protected navigational bridge wings;
  - Double hull 760 mm for sludge, bilge and fuel oil tanks and oil cargo tanks on non-oil tankers.
  - Carriage of Ship Type 3 chemicals in unprotected tanks will be subject to approval.
- All/Existing ships
  - Polar Water Operational Manual;
  - Minimize ice accretion and equipped to remove ice;
  - Ability to survive for 5 days after evacuation
  - Intact stability to be recalculated with ice on deck;
  - Means of radio and navigation for Antarctic or Arctic (prevent icing and suitable for high latitudes);
  - Additional training for navigational watch required (except ice free waters), but additional navigator may be taken on board (if Master is not qualified)
  - Operational imitations on discharge of oil and sewage and disposal of garbage

## ***Impact:***

Safety part applies from **1 January 2017** for new ships, existing ships by first int/ren survey after **1 January 2018**  
Environmental part (MARPOL) applies from **1 January 2017** for all ships

## ***Outcome:***

New SOLAS Chapter XIV and Polar Code adopted by MSC 94 and MEPC 68



## Noise Code: Protection against noise

- MSC 91 adopted a new Regulation 3-12 making the *Code on Noise Levels on-board Ships* (res. MSC.337(91)) **mandatory**
- The Code recommends measurement of noise levels in work, navigation, accommodation and service spaces under simulated port conditions and at normal service speed at no less than 80% of the maximum continuous rating (MCR)



### **Impact:**

Applicable to ships 1600 GT or more with:

- Building contract on or after **1 July 2014**
- Construction on or after **1 January 2015**
- Delivery or after **1 July 2018**

### **Outcome:**

New SOLAS Ch II-I Reg 3-12 adopted at MSC 91.

Existing SOLAS Chapter II-1, Regulation 36 is **deleted**



## Revised Noise Code – Changes from res. A.468(XII)

Designation of rooms and spaces	New Code (MSC.337(91))		A468
	1,600 up to 10,000 GT	≥10,000 GT	>1600GT
Ship size			
4.2.1 Work spaces (see 5.1)			
Machinery spaces <sup>5</sup>	110	110	90/110
Machinery control rooms	75	75	75
Workshops	85	85	85
Non-specified work spaces <sup>6</sup> (other work areas)	85	85	90
4.2.2 Navigation spaces			
Navigating bridge and chartrooms	65	65	65
Listening posts, incl. navigating bridge wings <sup>7</sup> and windows	70	70	70
Radio rooms (with radio equipment operating but not producing audio signals)	60	60	60
Radar rooms	65	65	65
4.2.3 Accommodation spaces			
Cabin and hospitals <sup>8</sup>	60	55	60
Messrooms	65	60	65
Recreation rooms	65	60	65
Open recreation areas (external recreation areas)	75	75	75
Offices	65	60	65
4.2.4 Service spaces			
Galleys, without food processing equipment operating	75	75	75
Serveries and pantries	75	75	75
4.2.5 Normally unoccupied spaces			
Spaces not specified	90	90	90



The **International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code)** entered into force **1 January 2017**

The IGF Code:

- is mandatory for ships using gas and other low flashpoint fuels, other than ships covered by the IGC Code
- includes detail requirements for natural gas as fuel (LNG/CNG)
- other low flashpoint fuels allowed, approval based on alternative design approach

Unified interpretations of the IGF Code approved at MSC97 by MSC.1/Circ.1559

A phase 2 development of the IGF Code is initiated in IMO including more detailed provisions for:

- methyl-/ethyl- alcohols as fuel
- fuel cells



### ***Impact:***

In force **1 January 2017**  
for Ships using Gases or  
other Low-flashpoint Fuels

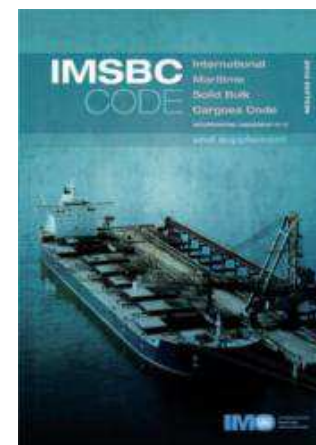
### ***Outcome:***

New IGF Code adopted at MSC 95 (MSC.391(95)), including amendments to SOLAS Ch. II-1 to make it **mandatory under SOLAS**



## IMSBC Code amendments ()

- Addition of the following new individual cargo schedules:
  - FOAM GLASS GRAVEL
  - IRON SMELTING BY-PRODUCTS
  - METAL SULPHIDE CONCENTRATES, CORROSIVES UN 1759
  - MONOAMMONIUM PHOSPHATE (M.A.P.), MINERAL ENRICHED COATING
  - MONPOCALCIUMPHOSPHATE (MCP)
  - OLIVINE SAND
  - OLIVINE GRANULAR SAND AND GRAVEL AGGREGATE PRODUCTS
  - SAND, MINERAL CONCENTRATE, RADIOACTIVE MATERIAL, LOW SPECIFIC ACTIVITY (LSA-I) UN 2912
  - SILICOMANGANESE (carbo-thermic)
  - SUGARCANE BIOMASS PELLETS
  - SYNTHETIC CALCIUM FLUORIDE
  - SYNTHETIC SILICON DIOXIDE
  - TITOMAGNETITE SAND
- Inclusion of Modified Proctor/Faberberg test for coal
- *Updated list of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective (MSC.1/Circ.1395/Rev.3)*



### **Impact:**

In force from **1 January 2019** but may be applied voluntarily from **1 January 2018**

### **Outcome:**

Amendments to the IMSBC Code adopted at MSC 98 in 2017.



## Amendments to IGC Code

- IGC Code, 3.2 Accommodation, service and machinery spaces and control stations
  - Removal of the requirement that wheelhouse windows need to be constructed to not less than “A-0” class for external fire-load
- The requirements for fire-rated windows on tankers are aligned with those in SOLAS chapter II-2, which do not apply to wheelhouse windows.
- The IGF Code (para. 11.3.2) contains the same requirement for A-0 fire-rated wheelhouse windows, and will therefore be amendment



### ***Impact:***

Applicable from 1 January 2020.

### ***Outcome:***

Amendments to IGC Code Ch 3.2 adopted at MSC 97 in 2016.  
Consequential amendment to IGF Code expected at MSC 98.



# Proposed amendments to the 1994 and 2000 HSC Codes

- Amendments to the 1994 and 2000 HSC Codes in Chapter 8 – Life Saving Appliances and Arrangements:
  - High-speed craft of less than 20 m (1994 HSC Code) and 30 m (2000 HSC Code) in length may be exempted from carrying a rescue boat, provided
    - the requirements of paragraphs 8.10.1.5.1 to 8.10.1.5.3 are fulfilled,
    - and provided a person can be rescued from the water in a horizontal or near-horizontal body position (MSC.1/Circ.1185/Rev.1)



### ***Impact:***

Mandatory for all units from 1 January 2020.

### ***Outcome:***

The amendments to the 1994 and 2000 HSC Codes were adopted at MSC 98 in June 2017.



# Other important Codes and Guidelines



Pressure testing of cargo oil tanks under direction of the master

2012 Cape Town agreement

Amendments to non-mandatory Codes

Amendments to the CSC, 1972

Armed Security Personnel

Amendments to LL Protocol 1988

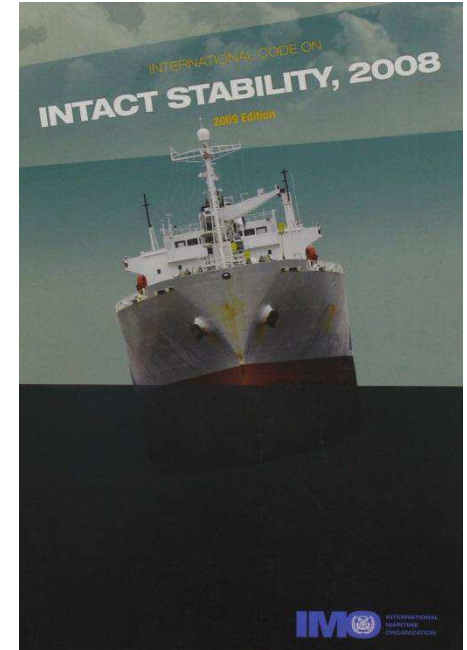
2009 MODU Code

2008 Intact Stability (IS) Code



# Amendments to the 2008 IS Code on Anchor Handling, Towing and Lifting Operations

- Amendment to the 2008 IS Code with 3 chapters on :
  - Anchor Handling
  - Towing (including escort towing) and
  - Lifting
- Content: Stability criteria which supplement (or partially replace) the stability criteria valid for ships *during certain operations*



## ***Impact:***

Entry into force on 1 January 2020. The amendments are non-mandatory and applicable for new builds only, but:

- May be required by flag state
- Or as “industry standard” by marine warranty surveyors

## ***Outcome:***

The amendments have been adopted at MSC 97.



# 2012 Cape Town Agreement on the 1993 Torremolinos Protocol to the Convention for the Safety of Fishing Vessels - Diplomatic Conference

- The Agreement updates and amends a number of provisions of the 1993 Torremolinos Protocol, including the following:
  - **Application**  
Unless expressly provided otherwise, the provisions apply to new vessels
  - **Exemptions**  
Administrations may exempt any vessel entitled to fly its flag from any of the requirements if it considers that the application is unreasonable and impracticable under certain conditions
  - **Certificates**  
The International Fishing Vessel Safety Certificate is amended to state it is issued under the provisions of the 2012 Cape Town Agreement

The Agreement will enter into force 12 months after the date on which 22 States with more than 3,600 fishing vessels over 24 m in length operating on the high seas have agreed be bound by it.  
(Status June 2017: 7 states)

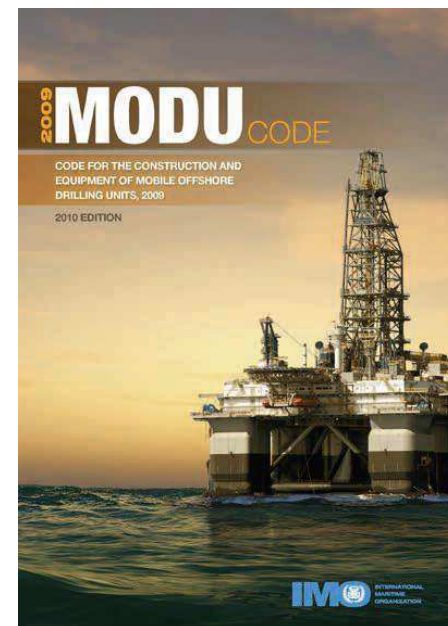




## MSC 98: Amendments to the 2009 MODU Code

The revisions of the 2009 MODU Code address:

- Maintaining operational control over the integrity of the well and station-keeping capability
- Maintenance + repair of hazardous area certified equipment
- Specification of the location of "H-60" standard explosion-proof bulkheads/decks
- The provision of a deluge system and enhanced fire-extinguishing arrangements for the drill floor
- Increased average body mass of the lifeboat occupants: 82.5 to 95 kg
- Prohibition of a lifeboat to be accepted as a rescue boat
- Quarterly abandonment drills are to include lowering of a liferaft
- Use of certified equipment in hazardous area zone 0, zone 1 or zone 2



### ***Impact:***

Entry into force on 1 January 2020. The amendments are non-mandatory and applicable for new builds only, but may be required by flag state

### ***Outcome:***

The amendments have been adopted at MSC 98.

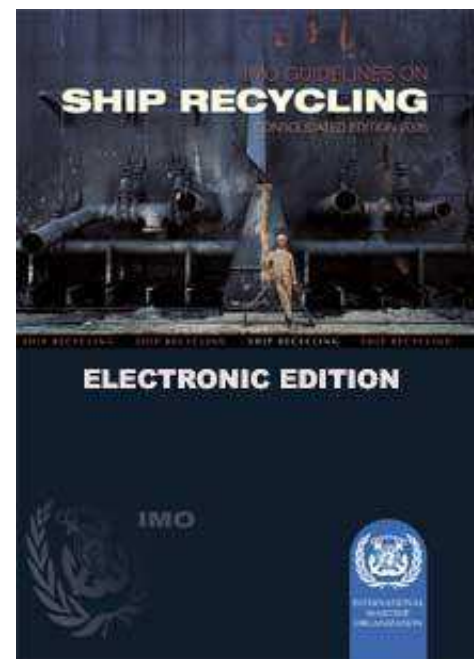
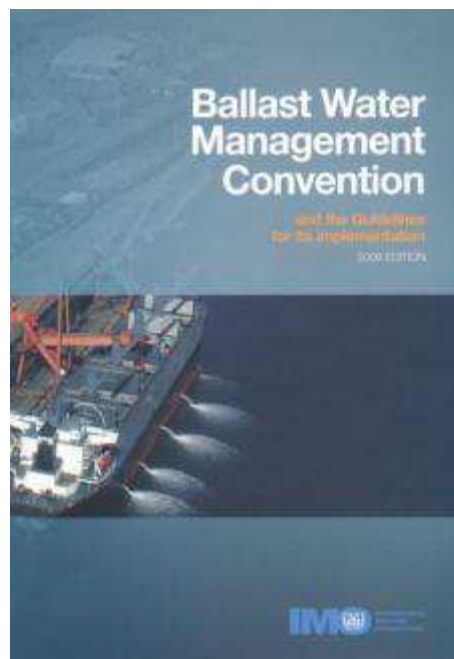
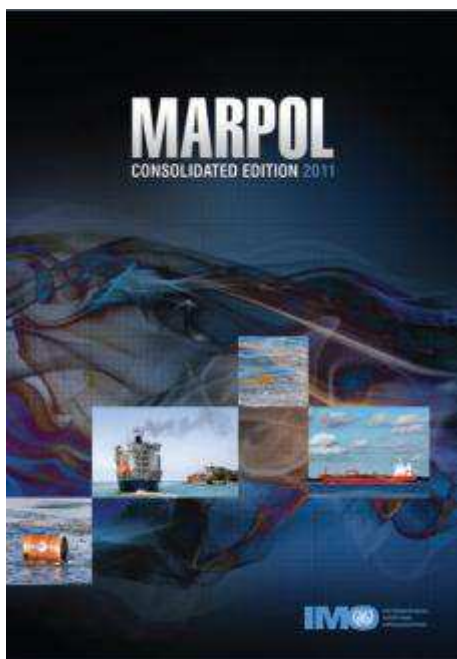


# Environment



# Main regulatory instruments and bodies on environment

## International conventions

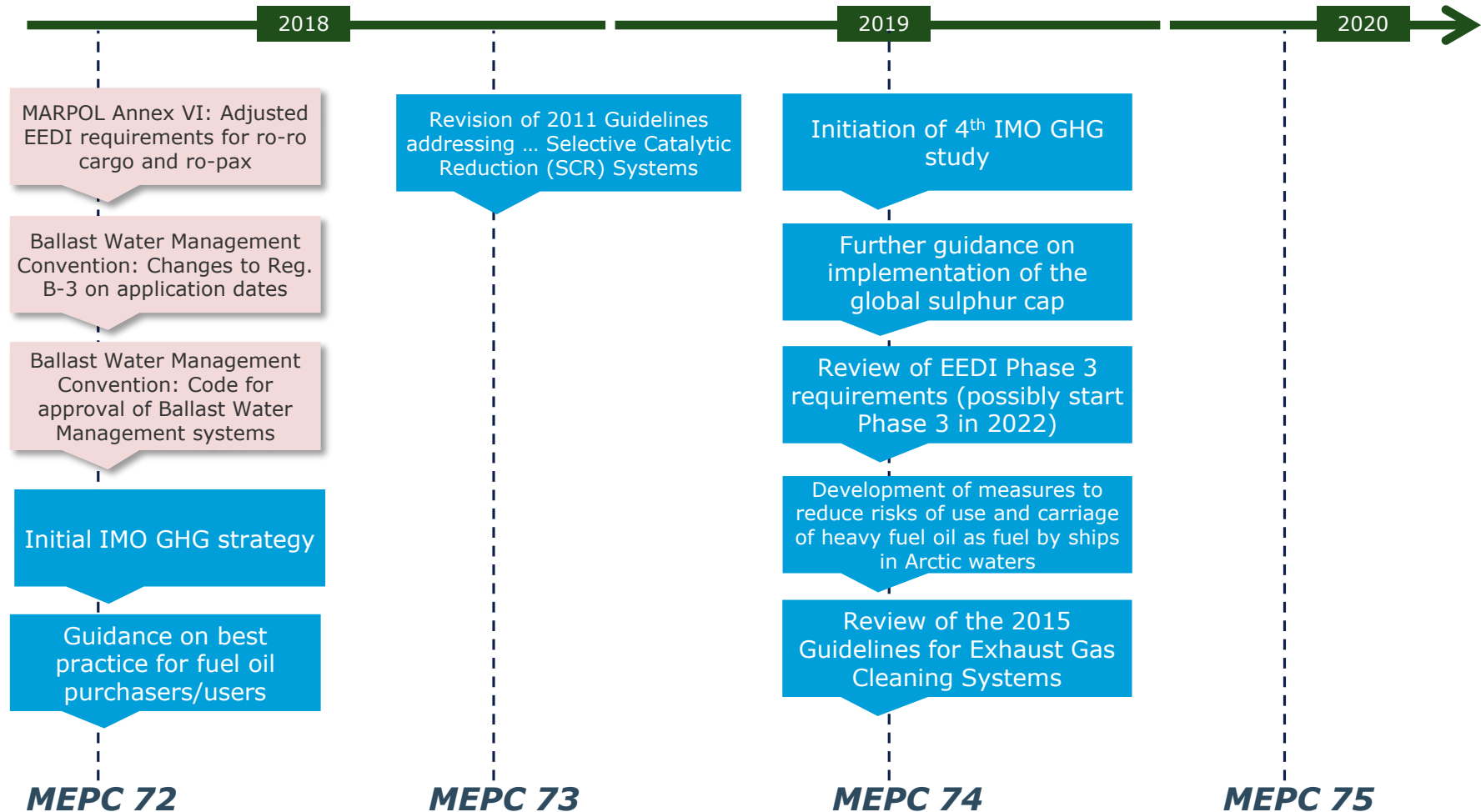


## Major regional/national regulating bodies





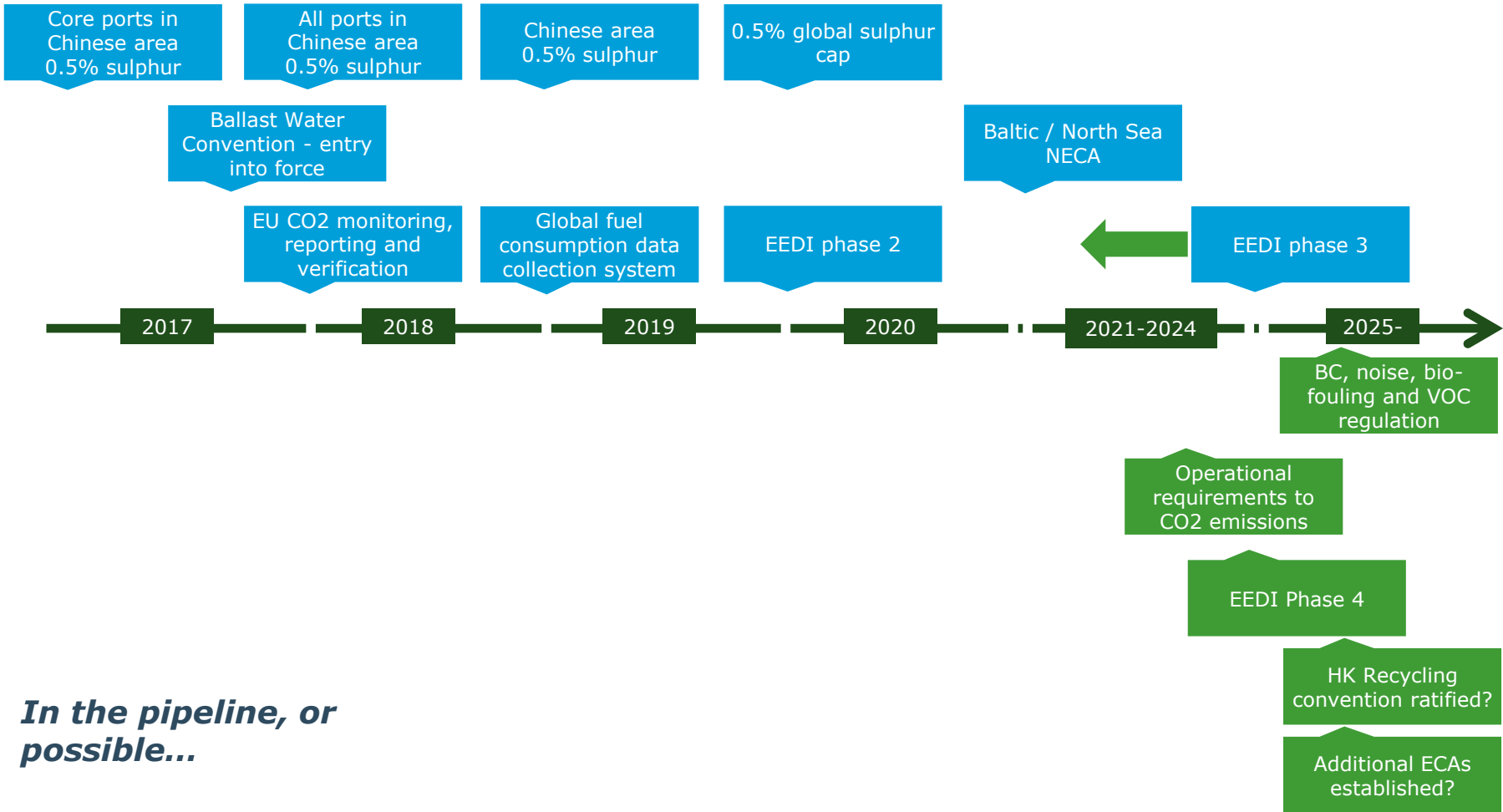
## Major IMO decisions – Environment





# Regulatory timeline towards 2030 - Environment

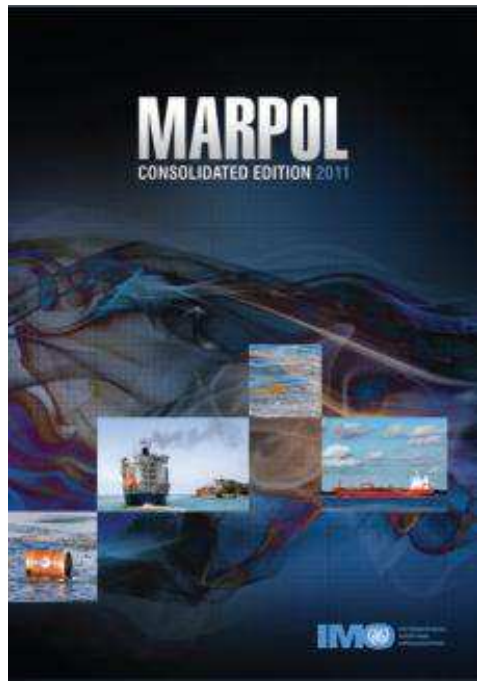
## Adopted



*In the pipeline, or possible...*



# MARPOL



Annex I: Prevention of pollution by **oil**

Annex II: Control of pollution by **noxious liquid substances**

Annex III: Prevention of pollution by **harmful substances in packaged form**

Annex IV: Prevention of pollution by **sewage** from ships

Annex V: Prevention of pollution by **garbage** from ships

Annex VI: Prevention of **Air Pollution** from Ships



## MEPC 70/71: Adopted amendments to MARPOL

- **Entry into force 1 March 2018**
  - **MARPOL Annex I, Appendix II**
    - Form B of the Supplement to the International Oil Pollution Prevention Certificate (MEPC.276(70))
  - **MARPOL Annex V**
    - HME substances and Form of Garbage Record Book (MEPC.277(70))
  - **MARPOL Annex VI**
    - Data collection system for fuel oil consumption of ships (MEPC.278(70))
- **Entry into force 1 January 2019**
  - **MARPOL Annex VI**
    - The designation of the Baltic Sea and the North Sea Emission Control Areas for NOX Tier III
  - **MARPOL Annex VI, Appendix V**
    - Information to be included in the bunker delivery note



# Amendments to MARPOL Annex I, Regulation 12 on tanks for oil residues (sludge)

- Regulation 12 of MARPOL Annex I was revised in 2011 prohibiting sludge discharge connections to the oily bilge water tanks, tank top or oily water separators for new vessels delivered after 1 January 2014.
- The same regulation has again been amended, now making it a retroactive requirement for all vessels irrespective of delivery date, effective from 1 January 2017.
- There can be no discharge connections from sludge tanks to the bilge systems, including tank top, except:
  - Manually controlled draining arrangements of the water phase.
  - A common shore discharging connection, provided a screw down non-return valve to prevent sludge transfer to bilge system.



## ***Impact:***

Non compliant ships have to comply within the first renewal survey on or after **1 January 2017**.

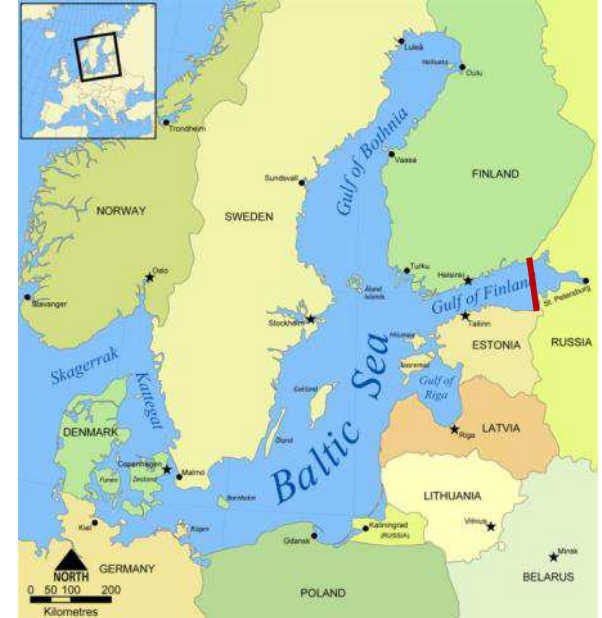
## ***Outcome:***

Amendments to MARPOL Annex I, Regulation 12, adopted by Res. MEPC 266(68)



## MARPOL Annex IV: Baltic Sea Special Area

- The Baltic Sea was designated as a special area for sewage in 2011 but application was dependent on adequate reception facilities
- MEPC 69 agreed that these are in place and decided on application dates for the Baltic Sea special area
- The definition of a “new passenger ship” is revised to contract date on or after 2019-06-01.
- Sewage from passenger ships will either have to be treated by a MEPC.227(64) type approved treatment plant or delivered to on-shore reception facilities, provided the effective dates of the special area.



### **Impact:**

- 1 June 2019** for new passenger ships;
- 1 June 2021** for existing passenger ships; and
- 1 June 2023** for existing passenger ships en route\*

\*directly to or from a port located outside the special area and to or from a port located east of longitude 28°10' E within the special area that do not make any other port calls within the special area.

### **Outcome:**

Amendments to MARPOL adopted by Res. MEPC.274(69)

MEPC 69 decided on application dates, Res. MEPC.275(69)



## MARPOL Annex V: HME substances and Garbage Record Book.

- New Annex I giving the criteria for classification of solid bulk cargoes as harmful to the environment.
- Solid bulk cargoes other than grain shall be classified and declared by the shipper as of whether or not they are harmful to the marine environment.
- New format of Garbage Record Book:
  - The Cargo Residue category has been split in two new categories, non-HME and HME.
  - A new category for E-Waste has been introduced.



### ***Impact:***

#### **Entry into force in 1 March 2018.**

The criteria for classification on HME substances and the responsibility thereof is now defined. The HME classification sets the discharge requirements inside and outside special areas. A new garbage record book has to be provided.

### ***Outcome:***

Amendments to MARPOL Annex V, Regulation 4, 6 and 10 adopted by Res. MEPC.277(70)



## MARPOL Annex VI: Fuel oil quality

- Major concerns with fuel oil quality and BDN reliability re-iterated, industry seeking mandatory standards
- Limited support from port/flag states, limited to considering expansion on voluntary guidelines
- It was considered that the current legal framework in MARPOL Annex VI for assuring the quality of fuel oil for use on board ships is adequate
- MEPC 71 decided that the guidance was still immature and needed further discussion



### ***Impact:***

Guidelines for assuring the quality of fuel oil delivered for use on board ships

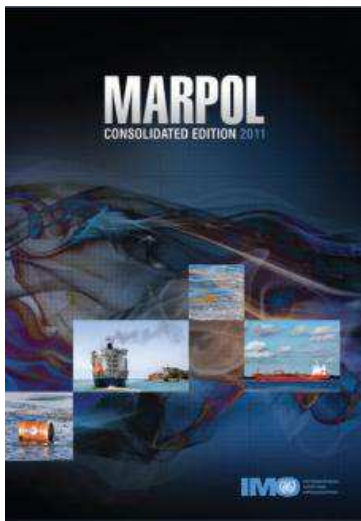
### ***Outcome:***

No changes to mandatory framework expected.



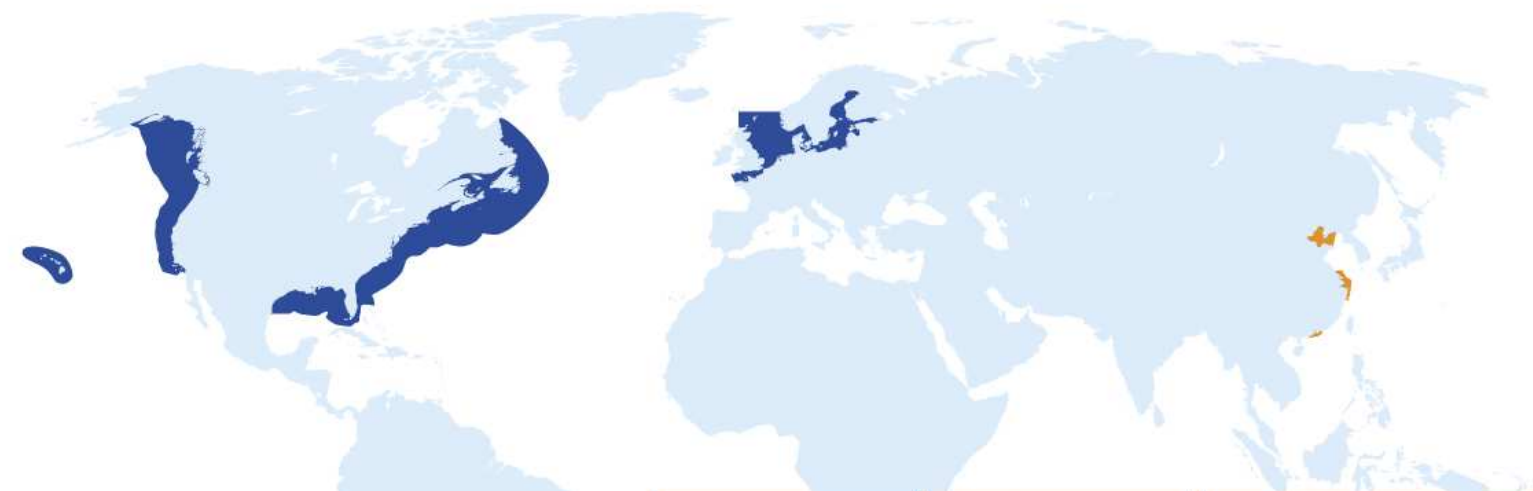
# Air emissions

## SO<sub>x</sub>, NO<sub>x</sub>, PM, Black Carbon





# Sulphur emission regulations



□ 0.5% global limit  
(MARPOL, 2020)

■ 0.1% Emission Control  
Area limit (MARPOL)

■ 0.5% local limit (Hong  
Kong, China)\*

\* Note that China and Hong Kong  
may go down to 0.1% before 2020.

Area	Sulphur limit	Scrubbers
Global	0.5 % (2020)	yes
Sulphur ECA	0.1 %	yes
EU	0.1 % in all ports	open-loop restricted in some countries
China	0.5 % in se- lected areas	yes
California	0.1 % within 24 nm	no, only through research exemption



## MEPC 70 - Global sulphur limits from 2020

- The global 0.5% sulphur limit was confirmed to apply from 1 January 2020.



More information on the global sulphur cap 2020 can be found on a dedicated webpage, include a new brochure:

<https://www.dnvgl.com/maritime/download-global-sulphur-cap-2020.html>



## Enforcement of global sulphur limit

- IMO is considering transition, implementation and enforcement issues of the global 0.5% sulphur limit
  - “Verification issues and control mechanisms and actions”
  - “Develop guidance, as appropriate, that may assist Member States and stakeholders”
  - “Any consequential regulatory amendments and/or guidelines”
- Other suggestions include;
  - Carriage ban of fuel with more than 0.50% unless scrubbers are installed
  - Requirement to carry sufficient compliant fuel when departing port
  - Adoption of a standardized Fuel Oil Non-Availability Report (FONAR) to reduce initial demand pressure
  - Adoption of MEPC resolution advocating a “soft” enforcement transition



### **Impact:**

Various measures to ease the transition to then global 0.5% sulphur limit

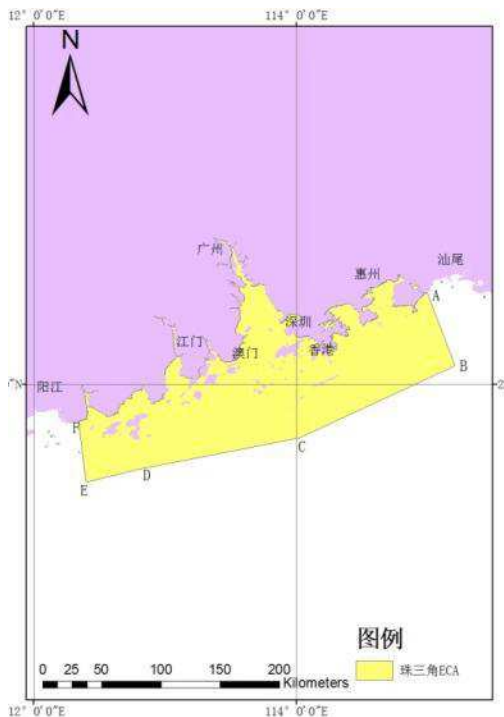
### **Outcome:**

To be concluded at MEPC 74 in 2019.





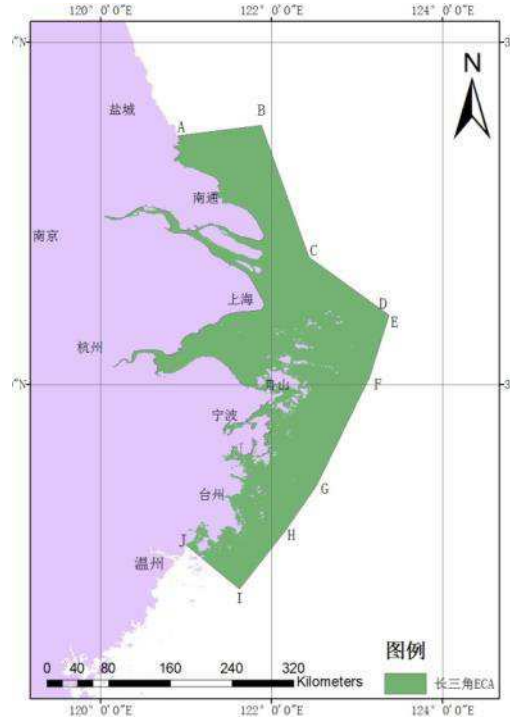
# Sulphur limits in Chinese waters



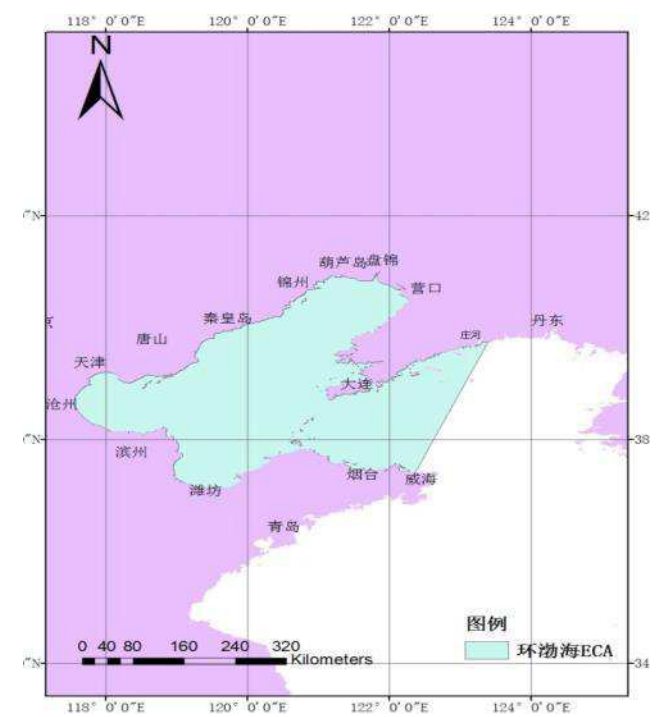
**Hong Kong/Guangzhou**

## Impact:

- 1 January 2016:** Core ports can voluntarily impose 0.5% sulphur limit;
- 1 January 2017:** Mandatory 0.5% S limit for core ports in areas
- 1 January 2018:** Mandatory 0.5% S limit for all ports in areas
- 1 January 2019:** 0.5% S limit in all sea areas, may decrease to 0.1% pending decision end 2019



**Shanghai**



**Tianjin/Dalian/Sea of Bohai**

## Outcome:

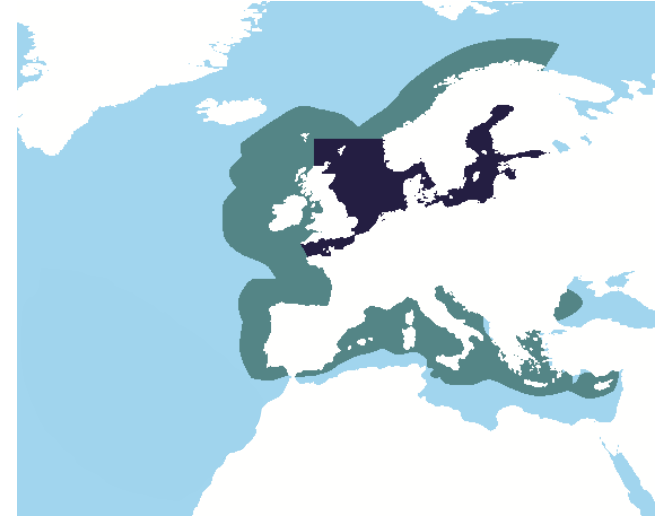
- National Chinese regulations, applicable to all vessels in relevant areas.
- Voluntary from 2016 and mandatory from 2017





## EU sulphur Directive - revision highlights

- **Revised Directive sought alignment with MARPOL Annex VI, but there are crucial differences;**
  - Covers ships “within EU waters”
  - 0.1% at berth and in inland waterways
- **Future actions and consequences**
  - Enforcement increasingly stringent
  - Acceptability of open loop scrubber discharge in doubt (e.g. Germany, Belgium), Water Framework Directive creating complications



### ***Impact:***

0.1% at berth and in inland waterways from 2010  
PAX vessels on “regular service”; 1,5% in all non-ECA EU waters **until 2020** (200 NM).  
0.5% in EU EEZ waters **in 2020**

### ***Outcome:***

Revised Directive agreed by EU in 2012  
Alignment with MARPOL Annex VI, but not identical





## Sulphur directive - Enforcement in the EU

- 2015 EMSA inspection statistics indicate high level of compliance
- Fines for SECA non-compliance (in EU from 1,500-50,000€) do not match potential savings, **non-compliance creates a competitive advantage**
- EC inspection requirements issued (10% inspected, 2-4% to be sampled by beginning 2016), EMSA inspection guidelines issued
- Industry grouping (Trident Alliance) lobbying for robust EU enforcement
- More stringent and frequent inspections to be expected, **BDN accuracy and trustworthiness will become even more critical**
- Future inspection technologies under consideration include drones, sniffing devices, etc.
- **Acceptability of open loop scrubbers** in doubt (Germany, Belgium), Water Framework Directive creating complications





# California Sulphur Regulations

- CARB regulation extended to at least 2018
- Scrubbers and non-distillate 0.1% compliant fuel not allowed as substitute
  - Temporary “Research Exemption” may be granted upon application prior to entering CA waters

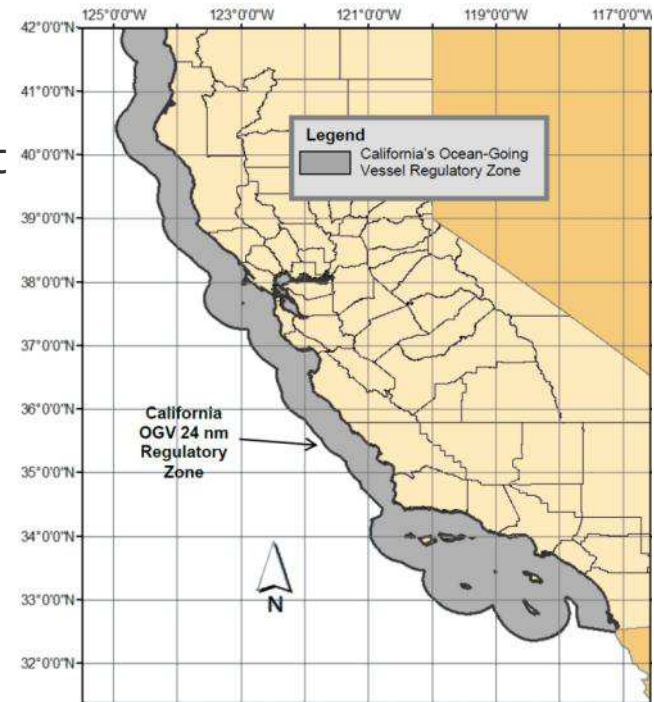
Fuel Requirement	Effective Date	Percent Sulfur Content Limit
Phase I	July 1, 2009 <sup>1</sup>	Marine gas oil (DMA) at or below 1.5% sulfur; or Marine diesel oil (DMB) at or below 0.5% sulfur
	August 1, 2012 <sup>2</sup>	Marine gas oil (DMA) at or below 1.0% sulfur; or Marine diesel oil (DMB) at or below 0.5% sulfur
Phase II	January 1, 2014 <sup>3</sup>	Marine gas oil (DMA) or marine diesel oil (DMB) at or below 0.1% sulfur

1 No change from the existing requirements.

2 Marine gas oil sulfur limit reduced from 1.5% to 1%. No change in marine diesel oil limit.

3 Implementation delayed from 2012 to 2014.

<http://www.arb.ca.gov/ports/marinevess/ogv.htm>



## Impact:

Until CARB regulation is withdrawn, both MARPOL Annex VI and CARB requirements have to be complied with.

Scrubbers and non-distillate 0.1% compliant fuel not allowed as substitute.

## Outcome:

CARB regulation extended to 2018. Review indicatively by April 2018, regulation may then possibly be withdrawn

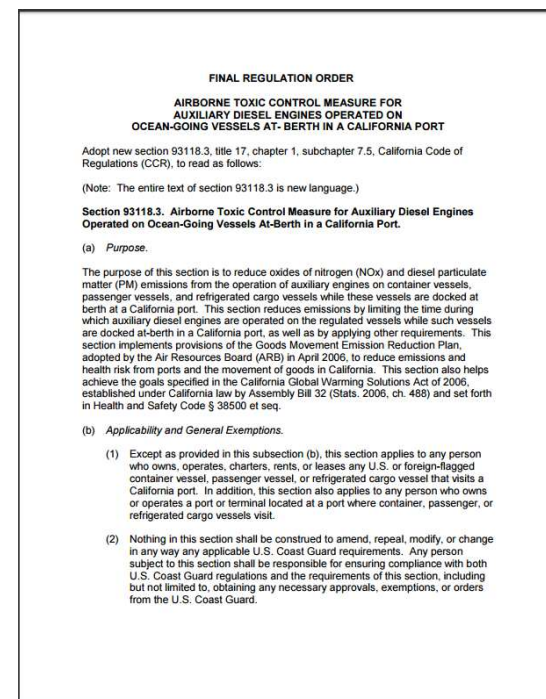


# California shore power requirements

- Enters into force January 1 2017
  - intended to reduce emissions of diesel particulate matter (PM) and oxides of nitrogen (NOx) from auxiliary engines on ocean-going vessels while at-berth at California ports
- Requires fleets to satisfy the following two criteria
  - Visits: At least 70% of a fleet's visits to a port must satisfy the following: for each visit, the auxiliary engines on the vessel cannot operate for more than three hours during the entire time the vessel is at-berth, and
  - Power Reductions: The fleet's total onboard auxiliary engine power generation must be reduced by at least 70% from the fleet's baseline power generation
- Alternatives to shore power accepted as long as NOx and PM are reduced by 70% or more through use of an ARB-approved technology

## Impact:

Installation of on-board shore power equipment or alternative abatement solutions is necessary from **1 January 2017**. Stringency increasing to 80% in 2020



## Outcome:

New CARB Advisory issued in November 2016.



## Panama Canal fuel requirements

- The Panama Canal Authority has issued a Notice with fuel requirement when manoeuvring in the canal water.
  - The requirement is not new, but has not been enforced previously
- Vessels operating on heavy fuel oil shall change to light fuel prior to entry into water bodies under the responsibility of the Panama Canal Authority
- The requirement does not apply to vessels equipped with an exhaust gas cleaning system, nor to vessels operating on a low-Sulphur hybrid fuel type
- LNG Carriers may opt to use boil off gas (BOG) to fuel their propulsion engines or power generators while maneuvering in Canal waters.



### **Impact:**

All vessels operating on heavy fuel must use distillate marine fuels as classified by ISO 8216-2010 in the Panama Canal, unless equipped with exhaust gas scrubber.

### **Outcome:**

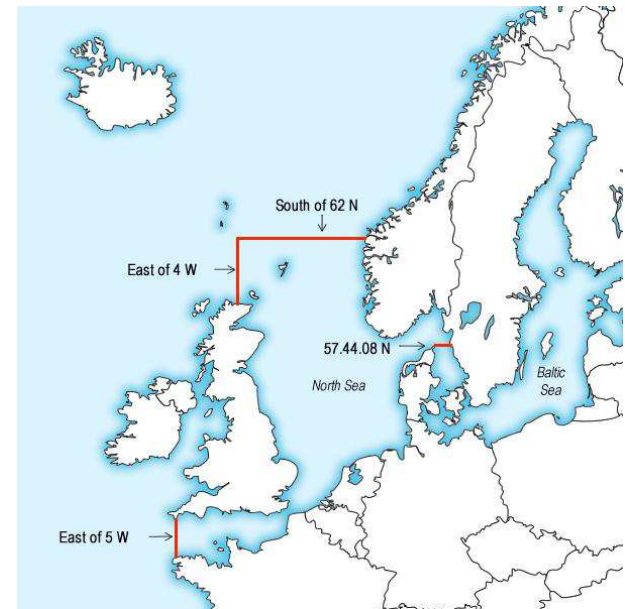
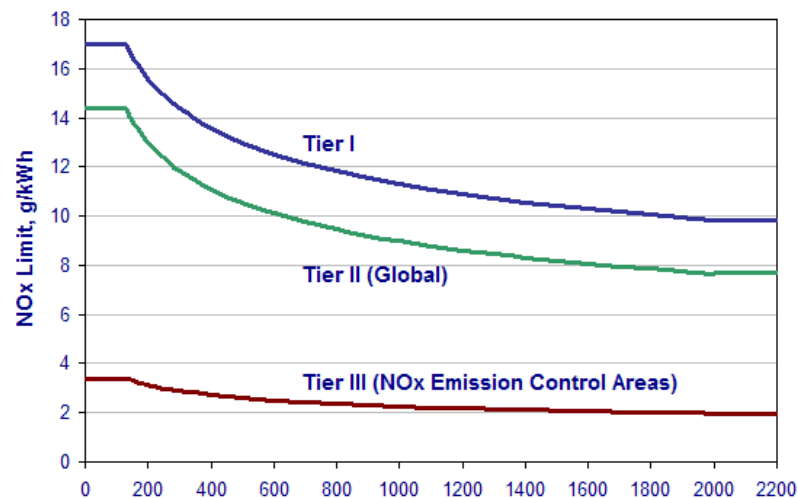
OP Notice to Shipping No. N-1-2017

Advisory to Shipping No. A-04-2017 and A-15-2017



## NOx – new Emission Control Areas

- The North Sea and Baltic Sea designated as Nox Emission Control Areas from 1 January 2021



### Impact:

Tier III compliant engines required for all vessels constructed after **1 January 2021** sailing in the North Sea and Baltic Sea

### Outcome:

Adopted at MEPC 71 in July 2017



## Black Carbon

- Agreement on definition
- Voluntary measurement studies requested
- The lack of consensus indicates that IMO control measures cannot be expected anytime soon
- IMO links black carbon to the discussion on climate change: global warming and ice melt
- Note: Regional EU work on PM reinvigorated, may impact on IMO black carbon discussions



### ***Impact:***

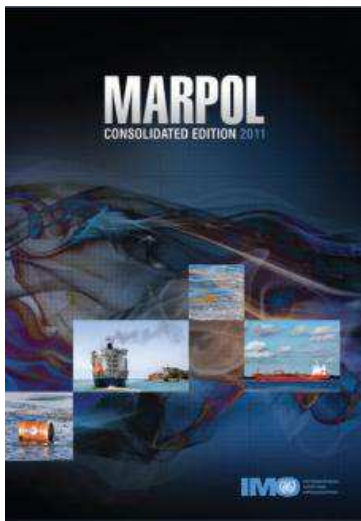
Control measures cannot be expected anytime soon

### ***Outcome:***

Significant disagreement on need for action, but topic remains on MEPC work program



# Green-house gases, CO<sub>2</sub>, energy efficiency





## IMO strategy on reduction of GHG from ships

- Roadmap agreed at MEPC 70 with the aim to develop a strategy at MEPC 72 in spring 2018.
- This strategy will contain an action plan with targets, measures and timelines
- The strategy will be assessed in the period up to 2023, based on
  - A fourth IMO GHG study
  - Analyses of the collected fuel consumption data.
- The revised strategy in 2023 should contain an implementation schedule for further measures to reduce GHG emissions



### ***Impact:***

Strategy will have eventual implications for focus on ship operational- and design energy efficiency. May lead to Market Based Measures next decade

### ***Outcome:***

Roadmap agreed with the aim to develop a strategy at MEPC 72 in spring 2018.



## MARPOL Annex VI amendments: Fuel consumption data collection system

- MEPC 70 adopted a data collection system for fuel consumption
  - Covers all ships of 5000 GT and above
  - Fuel consumption and distance sailed to be **monitored and aggregated by ship**, then verified, and reported annually to IMO database
  - Design deadweight as general cargo proxy in efficiency calculations, GT in special cases (passenger ships)
  - **Flag responsible** for verification and reporting to IMO, **RO role expected**
  - **Carriage requirement**; Statement of Compliance confirming that data for the preceding year was reported and verified
- Data collection and reporting methodology shall be described in a new part 2 of the SEEMP, to be confirmed by the Administration



### ***Impact:***

Covers all ships of 5000 GT and above. Entry into force 1 March 2018, but reporting starts **1 January 2019**. Updated SEEMP required within **31 December 2018**.

### ***Outcome:***

Amendments to MARPOL adopted at MEPC 70 in 2016. Verification guidelines adopted at MEPC 71.



## Fuel consumption data collection - details

- All vessels 5000 GT and above need to report fuel consumption with data collection starting **1 January 2019**.
- A plan for the data collection (SEEMP Part 2) to be included in the SEEMP latest **31 December 2018**
- An annual fuel consumption report (covering 1 January to 31 December), should be submitted and verified within **1 June in the subsequent year**.
- A confirmation of compliance will be provided after the SEEMP is updated and a Statement of Compliance will be issued after the annual report is verified and submitted to the Administration
- Guidelines under development

### To be reported:

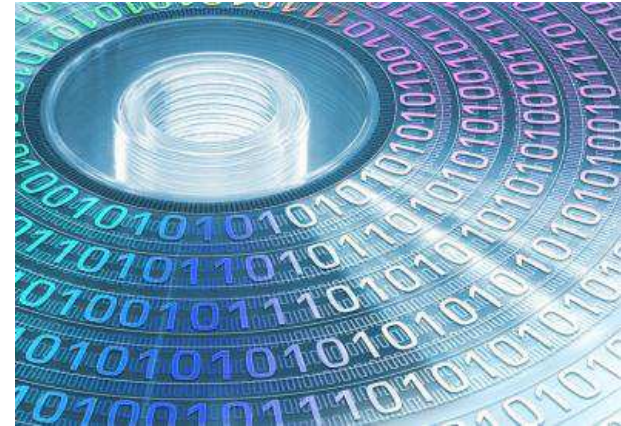
- IMO number
- Ship type
- GT, NT, DWT,
- Power output engines (engines over 130 kW)
- EEDI (if applicable)
- Ice class
- Fuel oil consumption, by fuel oil type
- Distance travelled
- Hours underway
- Methods used for collecting fuel oil consumption data



# EU – CO2 Monitoring, Reporting and Verification (MRV)



- 4 ways of measuring fuel consumption
- Distance sailed, time at sea, transport work and efficiency data (e.g. CO2 per tonne-nm) to be reported
- All ships above 5000 GT to submit reporting plans by 31 August 2017, monitoring starts 1 January 2018
- Verified emission reports to be submitted to EC by 30 April 2019, EC to publish data by 30 June 2019
- Seen by the EU as a step toward a global IMO MRV system, and eventual carbon pricing
- Work on practical implementation and verification details in progress at EC advisory body ESSF. Legal text published, final guidance documents by mid-2017



## ***Impact:***

**Ships above 5000 GT** (all flags) have to annually report CO2 emission on voyages to, from and between EU ports. Reporting plan to be submitted by **31 August 2017** and monitoring starts in **1 January 2018**.

## ***Outcome:***

Regulation (EU) 2015/757 entered into force 1 July 2015.



## Additional MRV information

- MRV information and tools on the DNV GL website;  
<https://www.dnvgl.com/maritime/mrv-regulation.html>





## Minimum propulsion power

- Ship designers may choose to reduce the ship's installed power to achieve the required EEDI
- A provision was added to regulation 21 in chapter 4 of MARPOL Annex VI, stating:
  - *"For each ship to which this regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines to be developed by the Organization."*
- Interim guidelines for evaluating if a bulk or tank vessel has sufficient power is in place for Phases 0, 1 and 2



### Impact:

Current guidelines applicable for **bulkers and tankers**, defining a minimum power line assessment method and an alternative simplified assessment method.

### Outcome:

Proposals based on research not mature yet and MEPC 71 decided to extend the current guidelines to be applicable for Phase 2



## EEDI review

- MARPOL Annex VI Ch 4 mandates two reviews of EEDI reduction rates, reference lines and phases. The first review will conclude by MEPC 71 in 2017, with any amendments adopted at MEPC 72 in 2018,
- The first review was concluded at MEPC 70 and 71:
  - No changes to Phase 2 requirements, except
  - For Ro-ro cargo and ro-ro passenger vessels the reference lines are adjusted upwards by 20%



### ***Impact:***

Reference lines increased by 20% ro-ro and ro-pax from Phase 2 starting 1 January 2020

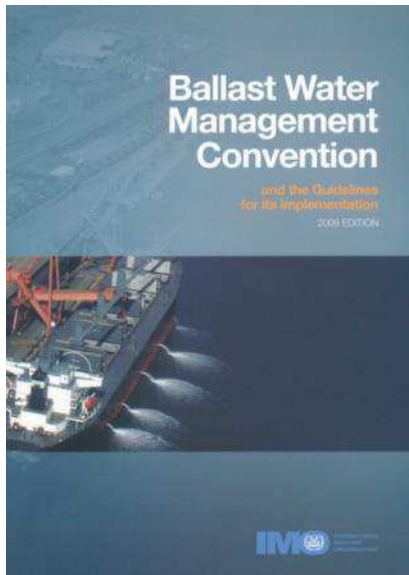
The next review initiated at MEPC 71 and will conclude at MEPC 73 in late 2018 and MEPC 74 in 2019.

### ***Outcome:***

Amendments to MARPOL Annex VI adopted at MEPC 71.



# Ballast Water Management





# The IMO Ballast Water Management Convention

- Aims to minimize
  - transfer of invasive aquatic species between ecosystems
  - transfer of bacteria harmful to human health
- Invasive species do real damage;
  - Great lakes, Canada
    - Zebra Mussels
  - Argentina & Brazil
    - Golden mussels
  - Pandemic outbreak, South America
    - Cholera
- Requires all ships to treat ballast water





# BWM Convention reached the necessary ratification threshold on September 8 2016

## Global treaty to halt invasive aquatic species to enter into force in 2017

Accession by Finland has triggered the entry into force of a key international measure for environmental protection that aims to stop the spread of potentially invasive aquatic species in ships' ballast water.

The International Convention for the Control and Management of Ships' Ballast Water and Sediments ([BWM Convention](#)) will enter into force on 8 September 2017, marking a landmark step towards halting the spread of invasive aquatic species, which can cause havoc for local ecosystems, affect biodiversity and lead to substantial economic loss. Under the Convention's terms, ships will be required to manage their ballast water to remove, render harmless, or avoid the uptake or discharge of aquatic organisms and pathogens within ballast water and sediments

"This is a truly significant milestone for the health of our planet," said IMO Secretary-General Kitack Lim.

"The spread of invasive species has been recognized as one of the greatest threats to the ecological and

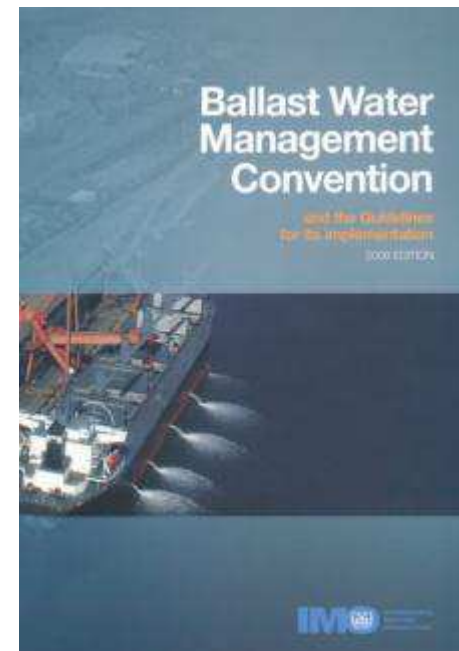
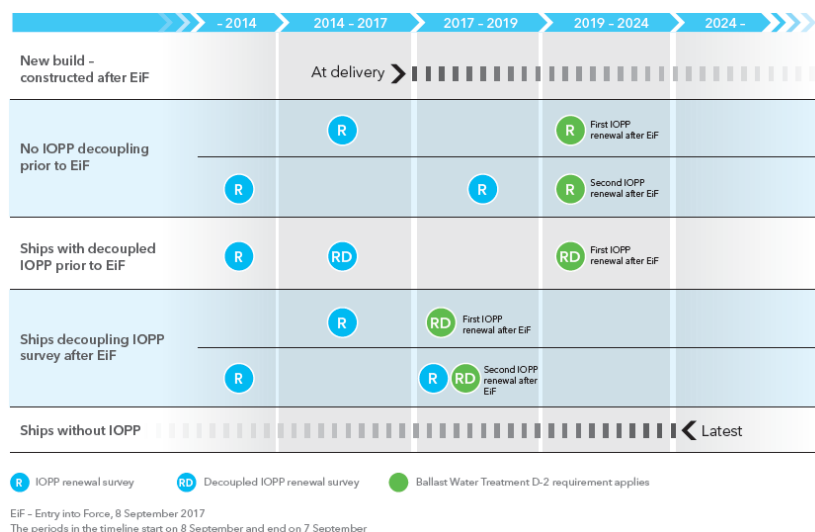


- Ratification by Finland brought the GT to 35.1441%, triggering entry into force on 8 September 2017



# Ballast water Management Convention – implementation of D-2 requirements

- MEPC resolution will ensure that this agreement is effective from the entry into force date of the BWMC: 8 September 2017



## Impact:

D-1 (Exchange): All ships need to comply **by 8 September 2017**, including a BW Management Plan (no change)

D-2 (Treatment): Ships constructed **on or after 8 September 2017** need to comply with D-2 **upon delivery**. Existing ships must in general comply by the **first IOPP renewal after 8 September 2019**. Ships below 400 GT must comply by **8 September 2024**.

## Outcome:

Amendments approved by MEPC 71 and expected to be adopted at MEPC 72.



## MEPC 71: Ballast Water – other issues (1)

- **G8 Type Approval Guideline is made into a Code** – language was made mandatory where necessary.
- **Formal amendments to the convention;** Survey and certification – no need to amend the certificate upon additional survey (aligned with other conventions). Intermediate survey corrected to be included in some paragraphs.
- **D-1 clarification:** Clarification that ships operating in areas where ballast water exchange is not possible is not required to meet D-2 standard. The reasons why BWE was not conducted should be recorded and potential established designated areas for BWE (in accordance with B-4.2) should be considered.
- **Contingency measures:** A general guidance created; giving a final option of discharging in suitable area as acceptable by the Port State.
- **BWE – G4 amended:** Example of ballast water reporting form updated.



## MEPC 71: Ballast Water – other issues (2)

- **Same risk area:** G7 amended: *SRA defined as Agreed geographical area based on a completion of risk assessment carried out in line with this Guidelines. Some new paragraphs were inserted.*
- **Occasional voyages for ships normally operation within one jurisdiction (.i.e. to repair yard):** *Amendment to the entry and re-entry into exclusive operation in one jurisdiction; A ship on a single voyage may be granted an exemption under reg. A-4 on the condition that the ship performs ballast water exchange in accordance with reg. B-4 and D-1 and an approved BWMP. Reg. A-4.1.4 (risk assessment) should be addressed to the satisfaction of the countries of origin and destination of the ship.*
- **Experience building phase:** Resolution made.







## US Ballast Water Management Regulations – 1 of 2

- The **US Coast Guard** BW regulations requires all ships to:
  - Clean ballast tanks to remove sediments
  - Rinse anchors and chains when retrieved
  - Remove fouling from the hull, piping and tanks on a regular basis
  - Maintain a BW management plan that includes procedures for fouling and sediment removal as well as ballast water management (plan need not be approved)
  - Maintain records of ballast and fouling management
  - Report to be submitted 24 hours before arrival

	Ballast water capacity	Construction date	Compliance date
New ships	All	On or after 2013-12-01	On delivery
Existing ships	Less than 1500 m <sup>3</sup>	Before 2013-12-01	First scheduled drydocking after 2016-01-01
	1500 m <sup>3</sup> to 5000 m <sup>3</sup>	Before 2013-12-01	First scheduled drydocking after 2014-01-01
	Greater than 5000 m <sup>3</sup>	Before 2013-12-01	First scheduled drydocking after 2016-01-01

Vessel's management may apply extension of implementation schedule, ref CG-OES Policy Letter No. 13-01 found at [Homeport USCG](#)

- **EPA - VGP** has additional requirements on BWTS calibration of sensors, sampling of biological indicators and sampling of residual biocides. Records to be retained on board for 3 years.





## US Ballast Water Management Regulations – 2 of 2

- USCG type approved BW systems required
  - USCG applies same standard as IMO BWMC, but stricter system test requirements
  - 3 type approved systems on the market.
  - More type approvals expected in 2017. Time limited equivalency mechanisms available (AMS and exemptions)
- 
- EPA VGP; overlaps with USCG but separate regulation with additional technical requirements
  - Court decision has decided that EPA acted “arbitrarily and capriciously” when adopting USCG BWT discharge standard. New VGP in 2018 will take this decision into account
  - Significant activity (VIDA) in Congress aimed at aligning and simplifying the overlapping frameworks; outcome uncertain







## Type Approval of BWTS

### IMO

- BWMC require a TA certificate by the Administration (flag State) or that such flag State acknowledge another Administration's TA certificate, in writing (ref Reg. D-3 and G8 6.3-6.5)



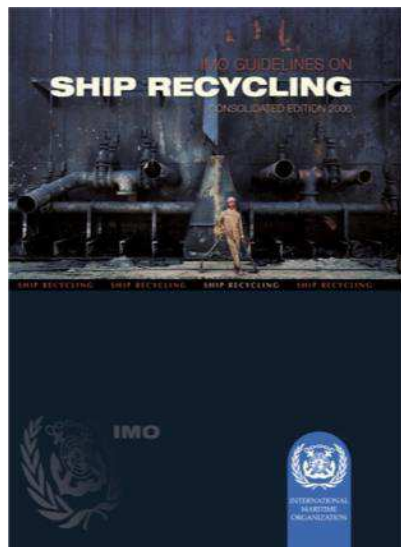
### USCG

- USCG requires (ref 33 CFR 151.2025) a TA certificate, issued by USCG in accordance with 46 CFR 162.060
- BWTS with IMO TA certificate (by and Administration) can after a review process by USCG be listed as AMS (Alternate Management System)
- An AMS system can be used 5 years from the date vessel is required to have a BWTS installed.
- Extension policy in force (more than 10000 issued so far)
- DNV GL is a delegated Independent Laboratory/Recognized organization (5 ILs in total as of June 2015)





# Ship Recycling





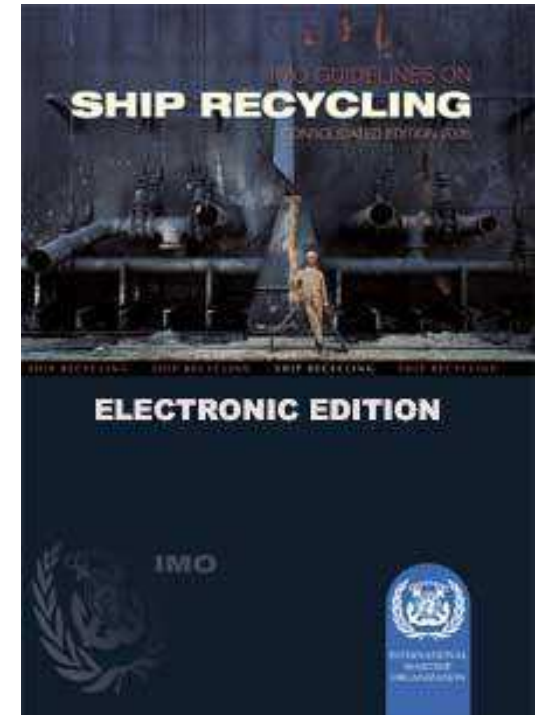
## Convention on Ship Recycling

The convention will provide regulations for:

- The design, construction, operation and preparation of ships so as to facilitate safe and environmentally-sound recycling
- The establishment of an appropriate enforcement mechanism for ship recycling, incorporating certification and reporting requirements (for example Inventory of Hazardous Materials, previously known as Green Passport)
- The operation of ship-recycling facilities in a safe and environmentally-sound manner

### **Impact:**

The Convention will enter into force 24 months after the date on which: 15 states; representing 40 per cent of world merchant shipping by gross tonnage the combined maximum annual ship recycling volume of those States must, during the preceding 10 years, constitute not less than 3 per cent of their combined merchant shipping tonnage



### **Outcome:**

New international convention adopted in May 2009 in Hong Kong



## Ship Recycling – Some Basics



The Convention calls for **inventory data**, a list of hazardous materials onboard, for all ships being delivered to a ship recycling facility

The Inventory of Hazardous Materials is the responsibility of the ship owner and includes 3 parts:

- Part 1 - Hazardous Materials Contained in the Ship's Structure and Equipment
- Part 2 - Operationally generated wastes
- Part 3 - Stores



# Revised Guidelines for the development of the Inventory of Hazardous Materials (IHM)

- The 2011 Guidelines for the Development of the Inventory of Hazardous Materials has been revised
- Threshold values being discussed include those for asbestos, anti-fouling systems containing organotin compounds (TBT), polychlorinated biphenyl (PCBs), cadmium, chromium, lead and mercury
- Asbestos threshold in practice set at 1.0%



## ***Impact:***

Revisions will apply to IHM's that are developed or updated after the adoption of the revised levels and are not applicable to existing IHMs and those under development

## ***Outcome:***

MEPC 68 adopted the 2015 Guidelines for the development of the Inventory of Hazardous Materials (IHM)





## EU - Ship recycling overview

- Aims to end scrapping of old EU-registered vessels on third-world countries beaches. Recycling only in EU-approved facilities (worldwide inventory).
  - New EU flagged ship (contract signed after 30 December 2013): IHM shall be established, verified and kept on board
  - Existing EU flagged ships: IHM shall be established, verified and kept on board not later than 31 December 2020 (or if going for recycling after 31 December 2016)
  - Non EU flagged ships: IHM shall be available and kept on board as from 31 December 2020
  - The scrapping requirements will apply to ships at the earliest 2015 and at the latest 2018, depending on the recycling capacity of approved yards recycling 2.5 millions LDT
  - EC to report in 2016 on mechanism to safeguards against reflagging prior to recycling, legislative proposal possibly in 2017
- Enforcement measures, including penalties are to be set by member states
- Does not explicitly ban beaching but the ship recycling facility must 'operate from built structures'



### **Impact:**

Entered into force **30 December 2013**

EU flagged vessels, and non-EU flagged vessels when calling EU ports, are required to carry an inventory of hazardous materials

### **Outcome:**

Ship Recycling Regulation adopted by the EU

Regulation aimed at facilitating early ratification of the Hong Kong Convention



# Other regulatory bodies



# International Labour Organization - ILO





## ILO Background

The International Labour Organization (ILO) is devoted to promoting:

- social justice and
- internationally recognized human and labour rights,
- pursuing its founding mission that labour peace is essential to prosperity

Today, the ILO helps advance the creation of decent work and the economic and working conditions that give working people and business people a stake in lasting peace, prosperity and progress

The ILO's tripartite structure (where governments and representatives of employers and employees work together) provides a unique platform for promoting [decent work for all women and men](#)

The ILO's main aims are to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue on work-related issues

**In the ILO's Maritime meetings the ISF coordinates the representation for the shipowners and the ITF for the seafarers, and**

**depending of the meeting they have either 1/3 or 1/4 of the voting power each so they have heavy influence on work, votes and decisions in the ILO**






# Maritime Labour Convention



- Title 1: Minimum requirements for seafarers to work on a ship
- Title 2: Conditions of employment
- Title 3: Accommodation, recreational facilities, food and catering
- Title 4: Health protection, medical care, welfare and social security protection
- Title 5: Compliance and enforcement



## ILO - Maritime Labour Convention, 2006

- 
- The Convention:
    - provides comprehensive rights and protection at work for the world's more than 1.2 million seafarers
    - consolidates and updates more than 65 international labour standards related to seafarers adopted over the last 80 years
    - sets out seafarers' rights to decent conditions of work on a wide range of subjects, and aims to be globally applicable, easily understandable, readily updatable and uniformly enforced; Covers inter alia
      - Minimum Requirements (age, medical certificate etc.)
      - Condition of Employment
      - Accommodation, Recreational Facilities, Food and Catering
      - Health Protection, Medical Care, Welfare and Social Protection
      - Compliance and enforcement
  - In force from **20 August 2013**



## MLC 2006

The Maritime Labour Convention (MLC 2006) was adopted by the ILO 26 February 2006

- Tripartite consultation (from 2001)
- DNV GL participation from 2001/2004 and it's a remaining focus to support our customers on this

***The working and living conditions of seafarers that must be inspected and approved by the flag State (or Recognised Organisation) before certifying a ship*** in accordance with Standard A5.1.3, para. 1:

- Minimum age
- Medical certification
- Qualifications of seafarers
- Seafarers' employment agreements
- Use of any licensed or certified or regulated private recruitment and placement service
- Hours of work or rest
- Manning levels for the ship
- Accommodation
- On-board recreational facilities
- Food and catering
- Health and safety and accident prevention
- On-board medical care
- On-board complaint procedures
- Payment of wages





# MLC Revision 2014 - New measures to protect seafarers



- The amendments were developed over nearly a decade by a Joint Working Group established by the ILO and the IMO in 1998;
- Establishes mandatory requirements for shipowners to have financial security to cover abandonment, and death or long-term disability of seafarers due to occupational injury, illness or hazard.
- Requires ships to carry certificates or other documents to establish that financial security exists to protect seafarers working on board. Failure to provide this protection may lead to ships being detained by port State Control.
- Certificate or other documentary evidence will be required, confirming financial security.



## ***Impact:***

Enters into force **18 January 2017**

## ***Outcome:***

Amendments to MLC 2006 adopted at ILO's International Labour Conference in 2014



# European Union - EU





# Regulation (EC) No 391/2009

## Article 10 Mutual Recognition (MR)



Based on Art 10.1, and in addition to the individual Type Approval Certification, DNV GL also offers the possibility of obtaining a type approval certificate that is mutually recognised by all other classification societies working under the quality regime of EU Regulation 391/2009.

### **DNV GL position**

- Compliance with the regulation as EU RO
- Align accordingly with the other ROs to for implementation of MR;
- DNV GL implementation includes:
  - Briefing on EU RO Mutual Recognition: e-learning 'Mutual Recognition as stipulated in Reg (EC) 391/2009, Art 10(1)' (8253w)
  - Intranet page containing the relevant information and links
  - Filter for MR TA Certification
  - Internet page



# Regulation (EC) No 391/2009

## Article 10 Mutual Recognition



MR Certificates issued by any of the below shown ROs have to be accepted by the other EU ROs, covering 55 product groups, including:

- electric motors, valves, circuit breakers, contactors, sensors

Relevant DNV GL Class programmes

- Type approval- EU RO Mutual Recognition (DNVGL-CP-EU-RO-MR)
- DNVGL-CP-0338 DNV GL type approval scheme (Section 7)







## Other EU regulations

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- EU – Sulphur Directive
- EU – CO2 Monitoring, Reporting and Verification (MRV)
- EU – Ship Recycling

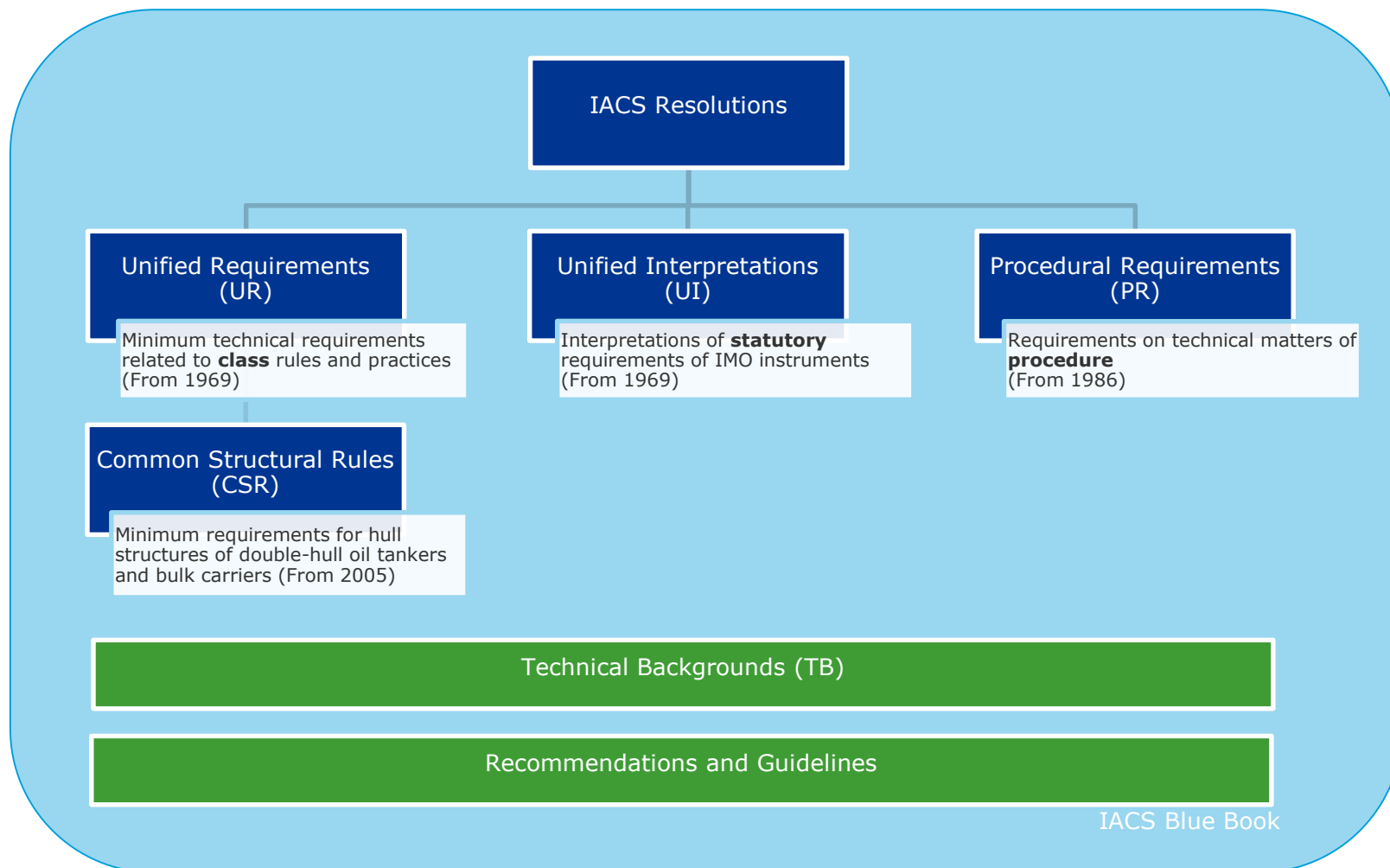


# International Association of Classification Societies - IACS





# IACS Resolutions





## Significant changes to IACS Resolutions (Unified Interpretations) adopted December 2016 – June 2017 - SOLAS

Resolution	Rev.	Date	Title
UI SC269	Rev. 1	(Dec 2016)	<b>Means of escape</b> from the steering gear space in cargo ships
UI SC282	New	(Dec 2016)	Application of <b>materials other than steel</b> on engine, turbine and gearbox installations
UI SC191	Corr. 2	(Dec 2016)	IACS Unified Interpretations (UI) SC 191 for the application of amended SOLAS regulation II-1/3-6 (resolution MSC.151(78)) and revised Technical provisions for <b>means of access for inspections</b> (resolution MSC.158(78))
UI SC191	Corr. 3	(Jan 2017)	IACS Unified Interpretations (UI) SC 191 for the application of amended SOLAS regulation II-1/3-6 (resolution MSC.151(78)) and revised Technical provisions for <b>means of access for inspections</b> (resolution MSC.158(78))
UI SC220	Corr. 2	(Jan 2017)	Special requirements for <b>ro-ro passenger ships</b>
UI SC281	-	(June 2017)	<b>Single fall and hook system</b> used for launching a lifeboat or rescue boat Interpretation of the LSA Code as amended by MSC.320(89) and MSC.81(70) as amended by MSC.321(89) - ( <b>Withdrawn</b> )

Note that IACS URs are implemented through the DNV GL Rules





# Significant changes to IACS Resolutions (Unified Interpretations) adopted Dec. 2016 – Jun. 2017 – ICC, IGC, HSC, MARPOL, LL, IGF

Resolution	Rev.	Date	Title
UI GF1	New	(Jan 2017)	Cyber Systems <b>Panel Roadmap</b>
UI MPC51	Rev. 1	(Jan 2018)	UI MSC51 “Resolution 2 of the 1997 MARPOL Conference Technical Code on <b>Control of Emissions of Nitrogen Oxides</b> from Marine Diesel Engines”

Note that IACS URs are implemented through the DNV GL Rules



## Significant changes to IACS Resolutions (Recommendations) adopted December 2016 – June 2017

Resolution	Rev.	Date	Title
Rec. 10	Corr. 1	(Dec 2016)	<b>Anchoring, Mooring, and Towing</b> Equipment
Rec. 75	Rev. 2	(Dec 2016)	Format for <b>Electronic Exchange and Standard Reports</b>
Rec. 148	New	(Jan 2017)	Survey of <b>liquefied gas fuel containment systems</b>
Rec. 109	Rev. 1	(May 2017)	Acceptance criteria for <b>cargo tank filling limits higher than 98 %</b> (on ships constructed before 1 July 2016)
Rec. 149	New	(May 2017)	Guidance for applying the <b>requirements of 15.4.1.2 and 15.4.1.3 of the IGC Code</b> (on ships constructed on or after 1 July 2016)
Rec. 150	New	(May 2017)	<b>Vapour pockets</b> not in communication with cargo tank vapour/liquid domes on liquefied gas carriers

**IACS Recommendations are not necessarily matters of class but which IACS considers would be helpful to offer some advice to the marine industry. The documents cover a wide range of issues and can be accessed via the IACS website**

**<http://www.iacs.org.uk/>**



# Significant changes to IACS Resolutions (Procedural Requirements) adopted **December 2016 – June 2017**

Resolution	Rev.	Date	Title
PR 10B	New	(Dec 2016)	Procedure for the Selection, Training, Qualification and Authorisation of <b>Maritime Labour Inspectors</b>
PR 2	Deleted	(Jan 2017)	Procedure for Failure Incident Reporting and Early Warning of Serious Failure Incidents – <b>“Early Warning Scheme - EWS”</b>

**IACS Procedural Requirements are adopted resolutions on matters of procedures to be followed by IACS Members. The documents can be accessed via the IACS website**

<http://www.iacs.org.uk/>



# Miscellaneous



## Mandatory electronic information exchange

- The **Convention on Facilitation of International Maritime Traffic (FAL)** convention includes, in its annex, "Standards" and "Recommended Practices" on formalities, documentary requirements and procedures which should be applied on arrival, stay and departure to the ship itself, and to its crew, passengers, baggage and cargo
- A revision has been adopted mandating electronic exchange of information on cargo, crew and passengers.
  - There will be a transitional period of 12 months from the date of the introduction of such systems, during which period paper and electronic documents would be allowed.
  - A new recommended practice encourages the use of the "single window" concept, to enable all the information required by public authorities to be submitted via a single portal without duplication.



The image shows a sample of the 'BRI-CARGO DECLARATION' form, which is a standardized document used for cargo declaration. It includes fields for ship name, origin, destination, and cargo details, along with a section for the declarant's signature and date.

### **Impact:**

Entry into force **from 1 January 2018**. Public authorities shall establish systems within **3 years**

### **Outcome:**

A revised annex to FAL adopted at FAL 40 in April 2016, mandating electronic exchange of information on cargo, crew and passengers.



## Some significant resolutions adopted by 29<sup>th</sup> IMO Assembly

- **Strategic plan** for the organization (for the six-year period 2016 to 2021), Res A.1097(29)
- **High-level action plan** of the organization and priorities for the 2016-2017 biennium, Res A.1098(29)
- **Survey Guidelines** under the Harmonized System of Survey and Certification (HSSC), 2015, Res A.1104(29)
- 2015 Non-exhaustive **list of obligations** under instruments relevant to the IMO Instruments Implementation Code (Res A.1077(28), Res A.1105(29))
- Revised guidelines for the onboard operational use of shipborne **automatic identification systems** (AIS), Res A.1106(29)
- Entry into force and implementation of the 2012 **Cape Town Agreement**, Res A.1107(29)
- Amendments to the Recommendations on **pilot transfer arrangements** (resolution A.1045(27), Res A.1108(29))





# IMO strategic plan and expected outputs



- Identified trends, developments and challenges
  - Globalization and sustainable development
  - Heightened maritime safety concerns
  - Heightened maritime security concerns
  - Heightened concerns on piracy and armed robbery against ships
  - Heightened environmental consciousness
  - Promoting the efficiency of shipping
  - Shifting emphasis onto people
  - People at sea
  - The importance of capacity building in ensuring universal and uniform application of IMO instruments
  - Technology as a major driving force for change in the maritime transport sector





# What's expected from IMO 2017 - 2020

## Target dates 2017

Task	Involved
Finalization of a non-mandatory instrument on regulations for non- convention ships	MSC
Review SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships (2019)	MSC, SSE
Comprehensive review of the 1995 STCW-F Convention (2018)	MSC, HTW
Mandatory requirements for classification and declaration of solid bulk cargoes as harmful to the marine environment	MEPC, CCC
Review of the guidelines for approval of ballast water management systems (G8)	MEPC, PPR
Code for the transport and handling of limited amounts of hazardous and noxious liquid substances in bulk on offshore support vessels	MSC, MEPC, PPR
Updated IMO Dispersant Guidelines	MEPC, PPR
Review of MARPOL Annex II requirements that have an impact on cargo residues and tank washings of high viscosity, solidifying and persistent floating products and associated definitions, and preparation of amendments (2018)	MEPC, PPR
Guidance for exceptions and exemptions under regulations A-3 and A-4 of the BWM Convention	MEPC, PPR
Measures to ensure quality of fuel oil for use on board ships	MEPC
Development of standards for shipboard gasification waste to energy systems and associated amendments to regulation 16 of MARPOL Annex VI	MEPC, PPR
Guidelines for the discharge of exhaust gas recirculation bleed-off water	MEPC, PPR
Review of fuel oil availability as required by regulation 14.8 of MARPOL Annex VI	MEPC
Revision of the 2011 SCR Guidelines (2018)	MEPC, PPR
Impact on the Arctic of emissions of Black Carbon from international shipping	MEPC, PPR
Revision of Guidelines concerning EEDI and SEEMP	MEPC
EEDI reviews required under regulation 21.6 of MARPOL Annex VI	MEPC
Further technical and operational measures for enhancing the energy efficiency of international shipping	MEPC
Consideration of development of goal- based ship construction standards for all ship types	MSC, MEPC



# What's expected from IMO 2017 - 2020

## Target dates 2018

Task	Involved
Develop new requirements for ventilation of survival crafts (2018)	MSC, SSE
Computerized stability support for the master in case of flooding for existing passenger ships	MSC, SDC
Consequential work related to the new Code for ships operating in polar waters	MSC, MEPC, SDC
Amendments to the FSS Code for CO2 pipelines in under-deck passageways	MSC, SSE
Uniform implementation of paragraph 6.1.1.3 of the LSA Code	MSC, SSE
Guidance for the implementation of the 2010 Manila Amendments	MSC, HTW
Revised Performance Standards for EPIRBs operating on 406 MHz (resolution A.810(19)) to include Cospas-Sarsat MEOSAR and second- generation beacons	MSC, NCSR
Guidelines for the harmonized display of navigation information received via communications equipment	MSC, NCSR
Revision of the Guidelines on Fatigue	MSC, HTW



# What's expected from IMO 2017 - 2020

## Target dates 2019 and 2020

Task	Involved
Revised guidance on ballast water sampling and analysis	MEPC, III
Further development of the provision of global maritime SAR services	MSC, NCSR
Guidelines on harmonized aeronautical and maritime search and rescue procedures, including SAR training matters	MSC, NCSR
Revised SOLAS regulation II-1/3-8 and associated guidelines (MSC.1/Circ.1175) and new guidelines for safe mooring operations for all ships	MSC, SDC
Amendments to the IGF Code and development of guidelines for low- flashpoint fuels	MSC, CCC
Revised SOLAS regulations II-1/13 and II-1/13-1 and other related regulations for new ships	MSC, SSE
Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III	MSC, SSE
Finalization of second generation intact stability criteria (2019)	MSC, SDC
Amendments to SOLAS regulations II- 1/6 and II-1/8-1	MSC, SDC
Requirements for onboard lifting appliances and winches	MSC, SSE
Suitability of high manganese austenitic steel for cryogenic service and development of any necessary amendments to the IGC Code and IGF Code	MSC, CCC
Additional modules to the Revised Performance Standards for Integrated Navigation Systems (INS) (resolution MSC.252(83) relating to the harmonization of bridge design and display of information	MSC, NCSR
Mandatory instrument and/or provisions addressing safety standards for the carriage of more than 12 industrial personnel on board vessels engaged on international voyages	MSC, SDC



# Sources of information on rules and regulatory changes



# News on rule development, IMO Updates, and technical/statutory newsletters are available from My DNV GL



My DNV GL / Maritime news and updates

## Maritime news and updates



- Technical
- Statutory
- Port State Control
- Rules and standards
- Regulatory updates - exclusive content
- My DNV GL portal news

MARCH 22, 2016 | RULES AND STANDARDS | NEWS

### DNV GL rules for ships available for offline download

Offline versions of the DNV GL rules for ships are now available for download with active links for easy navigation.

[Read more](#)

MARCH 22, 2016 | EXCLUSIVE | NEWS

### IMO update No 6-2016 / March

Update from the 3rd session of the IMO Sub-Committee on Ship Systems and Equipment (SSE 3). The Sub-Committee met in London from 14 to 18 March, and discussed issues related to life saving appliances; fire safety; review of the MODU Code; lifting appliances and winches; and escape routes and watertight doors.

[Download the document](#)

MARCH 18, 2016 | TECHNICAL | NEWS

### NOx compliance for retrofitted engines in ECA zones

If a diesel engine installed on board a vessel has to be replaced by a non-identical diesel engine, the replacement engine has to comply with IMO Tier III emission regulations for installations after the 1 January 2016. The market is only starting to respond to this demand, and it may be difficult to find a suitable replacement engine complying with Tier III. DNV GL explains in this technical news how to handle this issue.

[Read more](#)

MARCH 9, 2016 | EXCLUSIVE | NEWS

### IMO update No 5-2016 / March

Update from the 3th session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 3). The Sub-Committee met in London from 29 February to 4 March 2016, and discussed issues related to radio communication and navigation systems and global maritime distress and safety systems (GMDSS).

[Download the document](#)

DNV GL Portal news  
Rules and Regulations news  
Port State Control news

[→ Go to Maritime News](#)



# Examples of IMO Updates and newsletters

SAFER, SMARTER, GREENER

DNV GL

STATUTORY UPDATE No. 05, 2015 / JUNE

IMO REQUIREMENTS FROM JULY 2015 TO JULY 2018 INCLUSIVE

Keeping updated on new and retroactive requirements from IMO/ILO can be a challenge. Hence we have made a summary with the most important IMO/ILO requirements entering into force from 1st of July 2015 to 1st of July 2018 inclusive. A full overview can be found in Requirement Explorer™ accessible through DNV Exchange and in Rules Pilot which can be accessed via the DNV GL website.

This information is recommended to IT Operation departments of shipping companies. Information relevant for yards and new vessels. We hope you will find the information any further questions please feel free to [reg\\_data.service@dnvgl.com](mailto:reg_data.service@dnvgl.com) or [RulesPilot@dnvgl.com](mailto:RulesPilot@dnvgl.com).

## AMENDMENTS THAT WILL ENTER INTO FORCE FROM 1ST OF JULY 2015 TO 1ST OF JULY 2018

CONVENTION/CODE	REGULATION	DATE OF ENTRY INTO FORCE	APPLICABLE TO	SUBJECT
SOLAS	V/19.2.10.6 (new sub-para. 10.6)	2015-07-01	Chemical tankers, gas carriers and oil tankers, total tonnage <= 2012-06-30, GT >= 3000.	Electronic Chart Display and Information System (ECDIS) required, i.e. not only an option.
MARPOL	Annex VI, Ch. 4, Reg. 2, 20 & 21	2015-09-01	Cargo vessels and passenger vessels, GT >= 400, contract date >= 2015-09-01. All vessel types as defined in Ch.1, Reg. 2 (as amended by MEPC.251(66)).	Energy Efficiency Design Index (EEDI) to be calculated for additional vessels as described in updated Reg. 23 table 1 (as defined in Reg. 23 table 1) also distinguish between ships depending on the contract date.
MARPOL	Annex VI, Ch. 3, Reg. 13, 5.1 & 5.2	2015-09-01	Cargo vessels, HSC/ DSC and passenger vessels, total tonnage >= 2015-01-01. Vessels trading in North American and US Caribbean Sea Emission Control Area.	The implementation schedule III was changed. Tier III is now only for ships operating in the North American / US Caribbean ECA 2015-01-01 or later. For future application date will be determined by the ECA but shall not later than the date of adoption into force of the new ECA.
MARPOL	Annex VI, Ch. 4, Reg. 19.2.2 (new sub-para.)	2015-09-01	Cargo vessels and passenger vessels, GT >= 400, contract date >= 2013-01-01.	Added sub-para describing the propulsion by mechanical means including FPSOs and 15 ing rigs, regardless of their propulsion system exempted from the EEDI regulation.

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IMO UPDATE NO 6-2016 / MARCH

## IMO SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT

3<sup>RD</sup> SESSION, 14 TO 18 MARCH 2016

### INTRODUCTION

The 3<sup>rd</sup> session of IMO's Sub-Committee on Ship Systems and Equipment (SSE) was held in London from 14 to 18 March under the chairmanship of Dr. S. Ota from Japan.

The following is a summary of the items discussed during that session assumed to be significant and of interest to the shipping industry.

As SSE is a Sub-Committee, all decisions concerning rules, regulations and dates are generally subject to further consideration and approval by the Maritime Safety Committee (MSC).

### LIFE SAVING APPLIANCES

**SAFETY OBJECTIVES AND FUNCTIONAL REQUIREMENTS OF THE GUIDELINES ON ALTERNATIVE DESIGN AND ARRANGEMENTS FOR SOLAS CHAPTERS II-1 AND III**

2. the OEM need not to be authorized.

Furthermore, SSE agreed that the conditions for authorization of service providers shall apply equally to equipment manufacturers when they are acting as authorized service providers.

### REVIEW OF THE MODU CODE

The sub-committee agreed on proposed amendments to Ch.1, Ch.6, Ch.9 and Ch.14 of the MODU Code. These updates are based findings from the accident with Deepwater Horizon in 2010 and the main items are:

- definition and requirements for H-class divisions
- clarification of shut-down arrangement for units using DP systems
- requirements for fire-extinguishing arrangements for the drill floor
- handling of portable and transportable electrical equipment in hazardous areas was addressed in a new paragraph



## Maritime Regulatory Library (internal only)

The screenshot shows the Maritime Regulatory Library interface. At the top, the DNV GL logo is on the left, and a 'Menu' icon is on the right. A red circle highlights the 'Regulatory Library' link in the top navigation bar, with a callout bubble stating 'Click to go back to main page'. On the left, a 'Home' sidebar lists various links: Regulations, IMO-Vega, Consolidated instruments, Requirement Explorer, EU, Meeting documents, Current, Archive, Meeting schedule, and Circular letters. A callout bubble points to this list, saying 'Quick links to regulations'. Below the sidebar, a large banner reads 'Maritime Regulatory Library' and describes it as a portal for searching and accessing maritime regulatory documents. A callout bubble points to the 'IMO-Vega' link in the sidebar, saying 'IMO and ILO meeting documents'. In the center, there is a search bar labeled 'Search in regulatory content' with a dropdown menu set to 'Search All'. Below the search bar, 'Search tips' are provided, including instructions on using AND, NOT, OR, NEAR, wildcards, and double quotes. A callout bubble points to the search bar, saying 'Search in all content'. On the right, there is a section titled 'IMO meeting schedule' with a table of upcoming meetings. A callout bubble points to this table, saying 'List of upcoming IMO meetings'. Below the table, there are 'Links' to the 'Regulatory Library User Guide', 'What's on the regulatory agenda (ppt)', and 'IMO Coordinators'.

**Regulatory Library**

**Menu**

**Home**

- Regulations
  - IMO-Vega
  - Consolidated instruments
  - Requirement Explorer
  - EU
- Meeting documents
  - Current
  - Archive
  - Meeting schedule
  - Circular letters

**Maritime Regulatory Library**

The Regulatory Library is a portal for searching and accessing maritime regulatory documents. It is a repository for IMO, ILO and EU regulatory documents. In addition, you can search within IMO and ILO conventions and resolutions and IACS documents.

Search in regulatory content

Search All

**Search tips**

AND: Include both expressions. This is the default if no operator is provided.

NOT: Does not include the expression.

OR: Includes one or both expressions.

NEAR: Include results where the two expressions are within 8 words of each other. The distance can be specified by using NEAR(n=x).

Use a wildcard \* if you want to be sure to get variations of the term you are looking for or if you are not sure about the spelling.

Use double quotes "" to find exact phrases. Remove the double quotes if you are not finding anything.

Use property restrictions: to search in for example title. O

SOLAS lifeboat

"tank test" NOT EEDI

tanker OR bulker

ballast NEAR(N=10) exemption

Circ.39\*

"MARPOL"

**IMO meeting schedule**

MSC 97	2016-11-21	<a href="#">Documents</a>
C 117	2016-12-05	<a href="#">Documents</a>
PPR 4	2017-01-16	<a href="#">Documents</a>
HTW 4	2017-01-30	<a href="#">Documents</a>
SDC 4	2017-02-13	<a href="#">Documents</a>
NCSR 4	2017-03-06	<a href="#">Documents</a>
SSE 4	2017-03-20	<a href="#">Documents</a>
FAL 41	2017-04-04	<a href="#">Documents</a>

[Previous](#) [Next](#)

[Add new event](#)

**Links**

- [Regulatory Library User Guide](#)
- [What's on the regulatory agenda \(ppt\)](#)
- [IMO Coordinators](#)



# Requirement Explorer™ – available from My DNV GL



My DNV GL / Fleet in Service

My Contacts Longva, Tore ▾

🇳🇴 International Regulatory Affairs, Høvik ⓘ

Vessels Companies **Requirements** Certificates DATE

Entry into force:	<input type="text" value="2001-07-06"/>	Convention/Code:	<input type="text" value="All"/>	Vessel GT:	<input type="text" value="40000"/>
Vessel keel laid:	<input type="text" value="2001-07-06"/>	Vessel type:	<input type="text" value="Bulk carriers"/>	Load line:	<input type="text" value="185"/>
Delivery date:	<input type="text" value="2002-07-31"/>	Subject:	<input type="text"/>	Dead weight:	<input type="text" value="50000"/>
Contract date:	<input type="text" value="2000-01-05"/>	MSC number:	<input type="text"/>	Regulation:	<input type="text"/>
		MEPC number:	<input type="text"/>	Amendment:	<input type="text"/>

Note that for cargo vessels with GT < 500, some parts of conventions and codes do not apply (e.g. SOLASCh. III).

Export: 📄

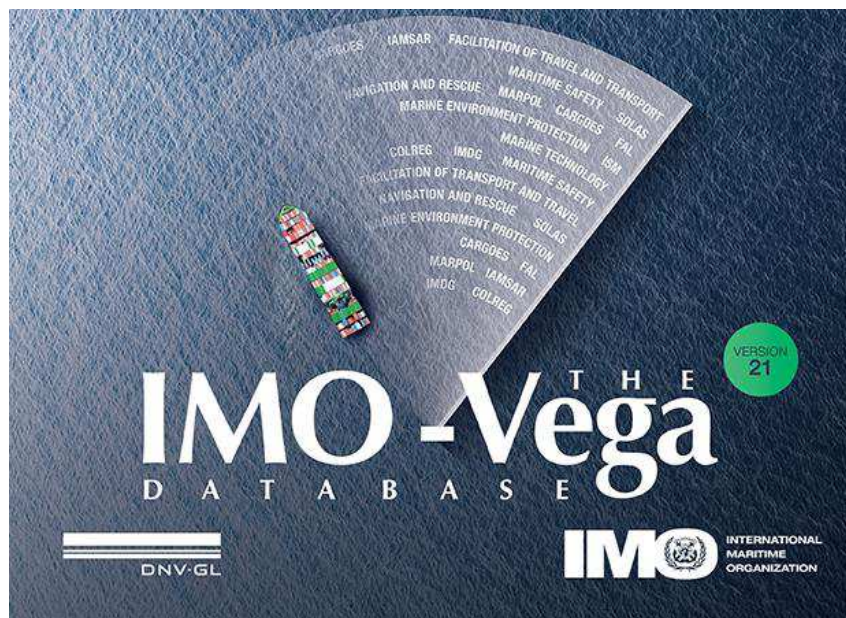
Number of requirements: 268

Filter table:


Convention/Code	Amendments	Regulations	Date of entry ↑	Applicable to	Subject	More
MARPOL	1997	Annex VI Protocol, Reg. 13	2005-05-19	Cargo vessels, HSC/ DSC and passenger vessels, keel-laid >= 2000-01-01. Diesel engines >= 130 kW	Requirements to maximum emission of NOx.	ⓘ
NOx Technical Code	1997		2005-05-19	Cargo vessels, HSC/ DSC and passenger vessels, keel-laid >= 2000-01-01, keel-laid <= 2010-06-30, GT >= 400. Applies to all diesel engines with output of more than 130 kW and installed between 2000-01-01 to 2010-07-01.	NOx Technical Code entered into force. Mandatory code which shall be applied in the certification, testing and measurement procedures for diesel engines referred to in MARPOL Annex VI, Reg.13.	ⓘ
MARPOL	1997	Annex VI Protocol, Reg. 5 & 6	2005-05-19	All cargo vessels, HSC/ DSC and passenger vessels, GT >= 400. Also applicable to platform and drilling rigs engaged in voyages	Survey & inspection. International Air Pollution Prevention (IAPP) Certificate required.	ⓘ
MARPOL	1997	Annex VI Protocol, Reg. 12	2005-05-19	All cargo vessels, HSC/ DSC and passenger vessels.	New installations which contain Ozone Depleting Substances (ODS) prohibited, except that new installations containing Hydrochlorofluorocarbons (HCFC) permitted until 2020-01-01.	ⓘ
MARPOL	1997	Annex VI Protocol, Reg. 12	2005-05-19	All cargo vessels, HSC/ DSC and passenger vessels.	Deliberate emissions from systems containing Ozone Depleting Substances (ODS) is prohibited.	ⓘ
MARPOL	1997	Annex VI Protocol, Reg. 18	2005-05-19	All cargo vessels, HSC/ DSC and passenger vessels.	Details of fuel oil for combustion purposes shall be recorded by means of a Bunker Delivery Note (BDN), which shall be retained on board for a period of minimum three (3) years.	ⓘ



# Software Tool for IMO legislation – IMO Vega Database



- <http://www.imo.org/en/Publications/Pages/IMO-Vega.aspx>
- Version V21.1 (2017)
- IMO website Knowledge Centre
- Other tools





**Electronic IMO-Vega Database for download (V21.1), 2017**

• New users (product code: Z21A)	QTY	PRICE	TOTAL
Single user standalone version		£700	
For each additional user add *		£350	

• Upgrade users (product code: Z21AX)	QTY	PRICE	TOTAL
Single user standalone version		£350	
For each additional user add *		£350	

\* Multi-user licence discount is only available per site (office or ship) and at point of purchase.

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Start date \_\_\_\_\_ Expiry date \_\_\_\_\_





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**Unsafe mixed migration by sea**



**The HNS Convention – why it is needed**



**World Maritime Day 2016: "Shipping: indispensable to the world"**

**What's New**



**Goal-based standard audits under scrutiny at Maritime Safety Committee**  
11/05/2016

The next stage in the implementation of goal-based standards for construction of oil tankers and bulk carriers is among the items on the agenda for the IMO Maritime Safety Committee (MSC), which opened for its 96th session today. The MSC (photos) will be invited to consider the goal-based standards verification audit reports of 12 members of the International Association of Classification Societies (IACS). Other important agenda items include the adoption of SOLAS amendments relating to evacuation analysis and the maintenance and testing of lifeboats and rescue boats – and the adoption of the 2016 amendments to the International Maritime Dangerous Goods (IMDG) Code. [more...](#)



**Addressing anti-fouling systems**  
20/05/2016

Flag State and port state roles in ratifying, implementing and enforcing the convention prohibiting the use of harmful anti-fouling systems on ships (AFS Convention) are on the agenda at a regional workshop being held in Jeddah, Saudi Arabia (10-11 May). The

**Secretary-General**



**IMO Meetings**

- Maritime Safety Committee (MSC) (11/05/2016 – 20/05/2016)
- Legal Committee (LEG) (08/06/2016 – 10/06/2016)
- Council (04/07/2016 – 08/07/2016)

[More Meetings...](#)  
[IMO Documents \(IMODOC\)](#)

**Resources**



# Abbreviations



## Key abbreviations

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AMS – Alternative Management System  
BC – Black Carbon  
BCH Code - Dangerous Chemicals in Bulk Code  
BLG – Bulk Liquid and Gases (MEPC sub-committee)  
BWMC – Ballast Water Management Convention  
CARB – California Air Resources Board  
CG – Correspondence Group  
DMA – Marine gas oil  
DMB – Marine diesel oil  
EC – European Commission  
ECA – Emission Control Area  
ECJ – European Court of Justice  
EEDI – Energy Efficiency Design Index  
EEOI – Energy Efficiency Operational Indicator  
EEZ – Exclusive Economic Zone  
EiF – Entry into Force  
EMSA - European Maritime Safety Agency  
EPA – US Environmental Protection Agency  
ESSF – European Sustainable Shipping Forum  
EU – European Union  
FORS - Fuel Oil Reduction Strategy  
GHG – Greenhouse gases  
IAEA – International Atomic Energy Agency  
IBC Code - International Bulk Chemical Code

ICS – International Chamber of Shipping  
III Code – IMO Instruments Implementation Code  
ISPI - Individual Ship Performance Indicator  
LNG – Liquid Natural Gas  
MARPOL - International Convention for the Prevention of Pollution from Ships  
MBM – Market Based Measures (“carbon price”)  
MEPC – Marine Environmental Protection Committee  
MRV – Monitoring Reporting and Verification  
NEC – National Emission Ceilings Directive  
NECA – NO<sub>x</sub> Emission Control Area  
NO<sub>x</sub> - Nitrogen oxides  
PPR – Pollution Prevention and Response (MEPC sub-committee)  
SECA – SO<sub>x</sub> Emission Control Area  
SEEMP – Ship Energy Efficiency Management Plan  
SO<sub>x</sub> – Sulphur oxides  
TBD – To Be Determined  
UNFCCC – United Nations Framework Convention on Climate Change  
US – United States of America  
VGP – Vessel General Permit





**For additional information**

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