

# IMO's overview on IMDG and IMSBC Codes

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Maritime Safety Division,*



# INTERNATIONAL MARITIME ORGANIZATION



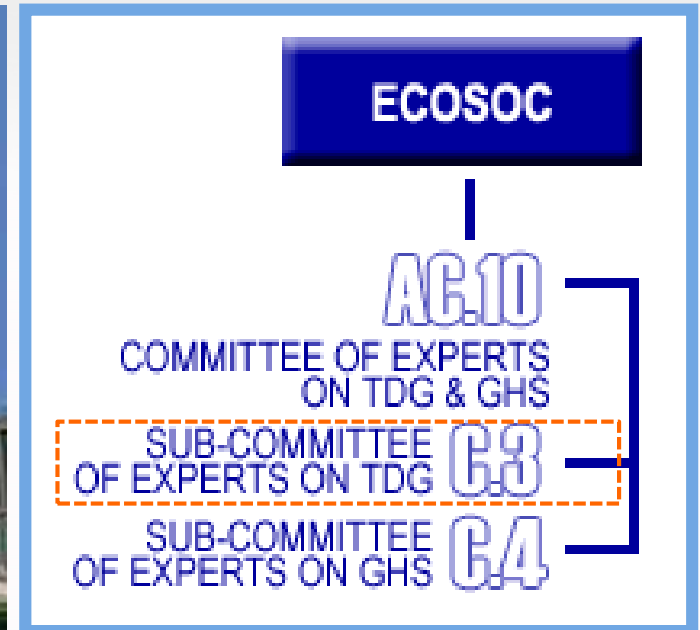
4 Albert Embankment, London SE1 7SR, United Kingdom

IMDG?, **IMSBC?**, Codes?



# ECOSOC - UN Economic and Social Council

Body of the United Nations Organization (UN) established to coordinate economic and social matters and the work of the 14 specialized agencies of the UN...  
.....IMO is one of those



Sub-Committee of Experts on the Transport of Dangerous Goods  
In 1956 established **minimun requirements** for the transport of such goods  
and for any type of transport:

(Road, Rail, Air and Sea)

Recommendations on the  
**TRANSPORT  
OF DANGEROUS  
GOODS**

**Volume I**  
16<sup>th</sup> revised edition

Model Regulations

16<sup>th</sup> revised edition



# Recommendations on the Transport of Dangerous Goods

## UN Model Regulations , *20th Revised Edition*



# "The Orange Book"

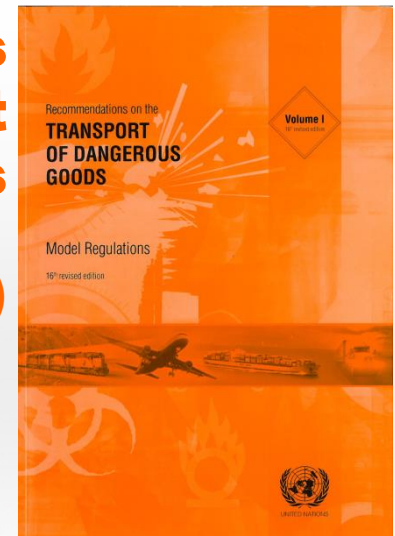
*(Road, Rail, Air and Sea)*

# UN Recommendations on the transport of Dangerous goods

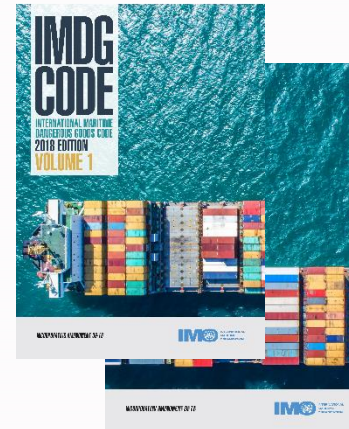
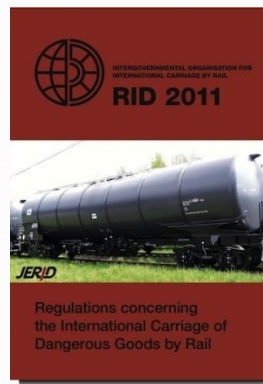
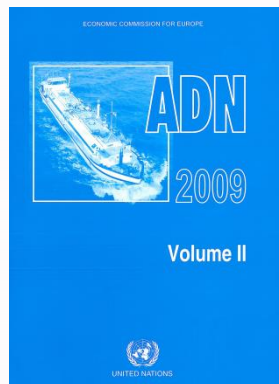
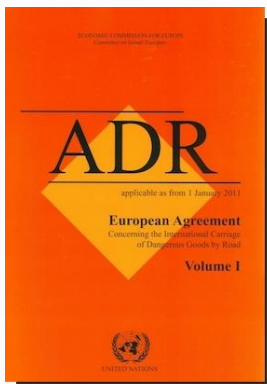
(United Nations Model Regulations)

**Nowadays....**

**The transport of dangerous goods.....  
is regulated by the following five international instruments  
depending of the mode of transport to be used.**



- ADR** \_\_\_\_\_ European Agreement concerning the International Carriage of dangerous goods by **Road**.
- ADN** \_\_\_\_\_ European Agreement for the carriage of dangerous goods by **Inland Waters**.
- RID** \_\_\_\_\_ Regulations concerning the international carriage of dangerous goods by **Rail**.
- IMDG** \_\_\_\_\_ International **Maritime** Dangerous Goods (IMDG) Code (and **IMSBC Solid Bulk Cargoes**).
- IATA / ICAO** \_\_\_\_\_ Technical instructions for the transport of dangerous goods by **Air**



**These five regulations are very similar, also in their text structure.  
There exists mutual recognition of documents, packing or labels in order to facilitate multilodal transport.**

# International Maritime Organization

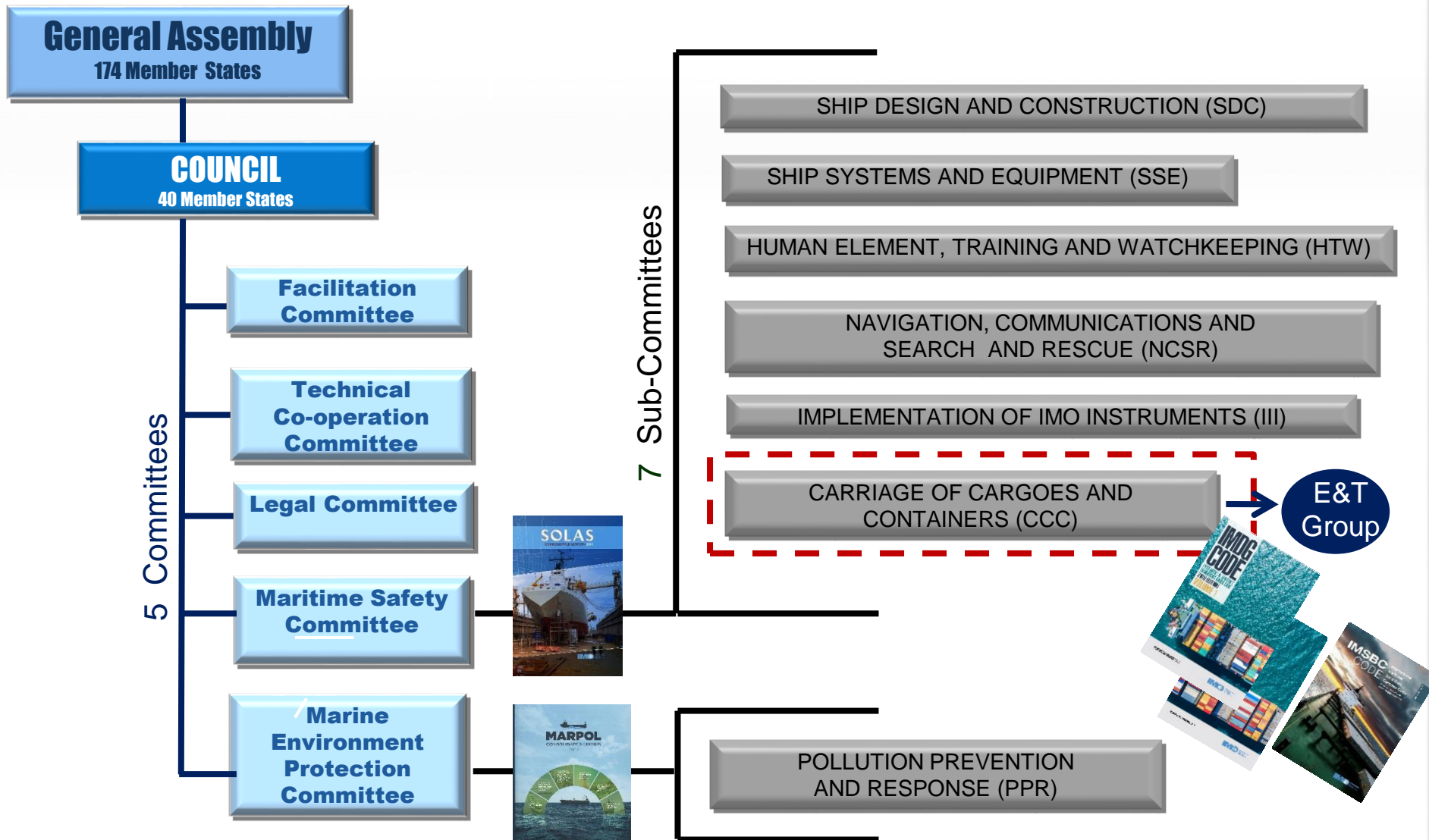


**IMO is an intergovernmental body that deals with matters on sea transport, which are referred to it by its Member Governments.**

**IMO is mainly involved in development of international regulations, on the basis of proposals by Member Governments.**

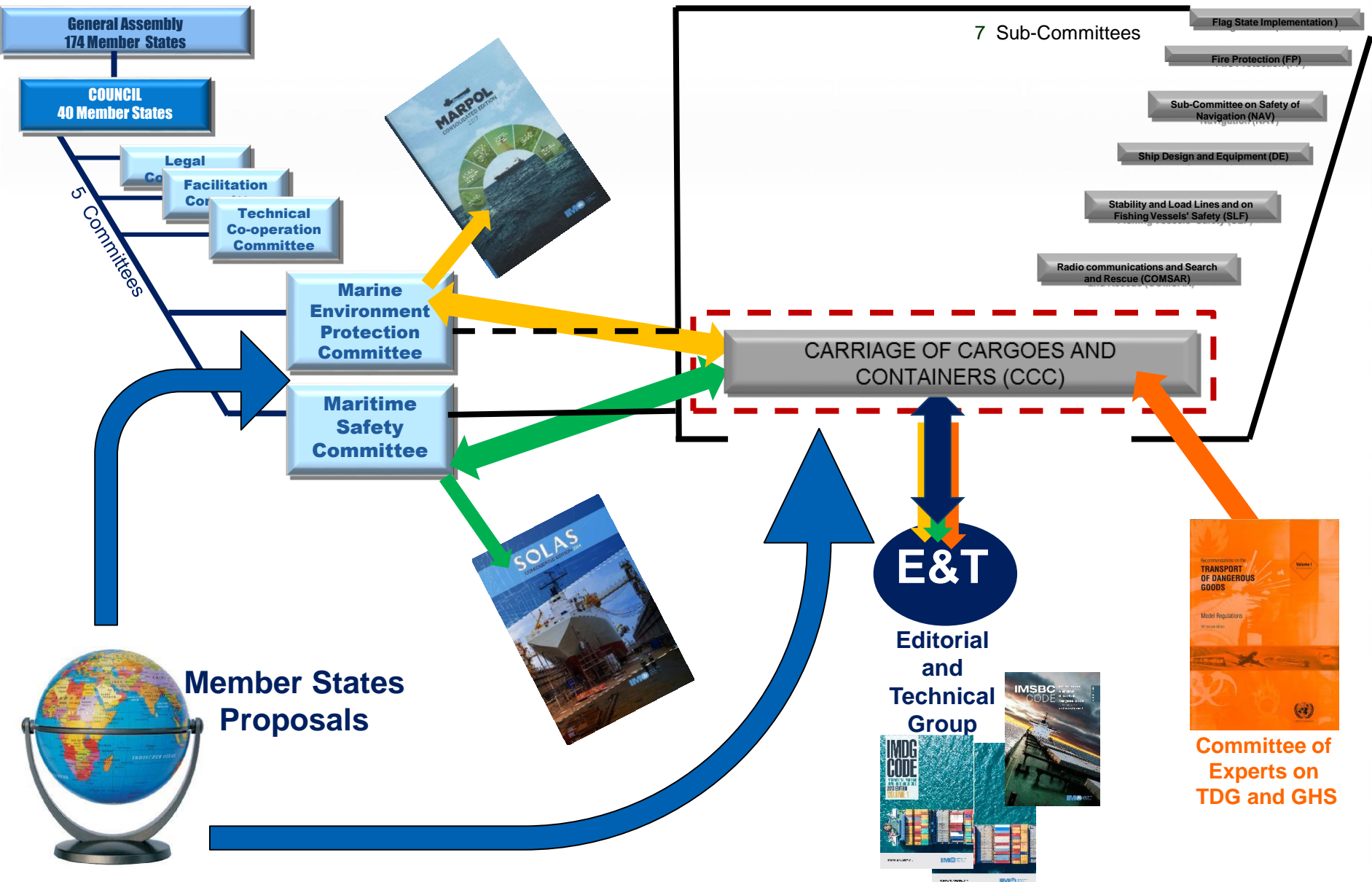
**The practical design and application is the responsibility of the maritime Administrations concerned**

# How it works





# The process....



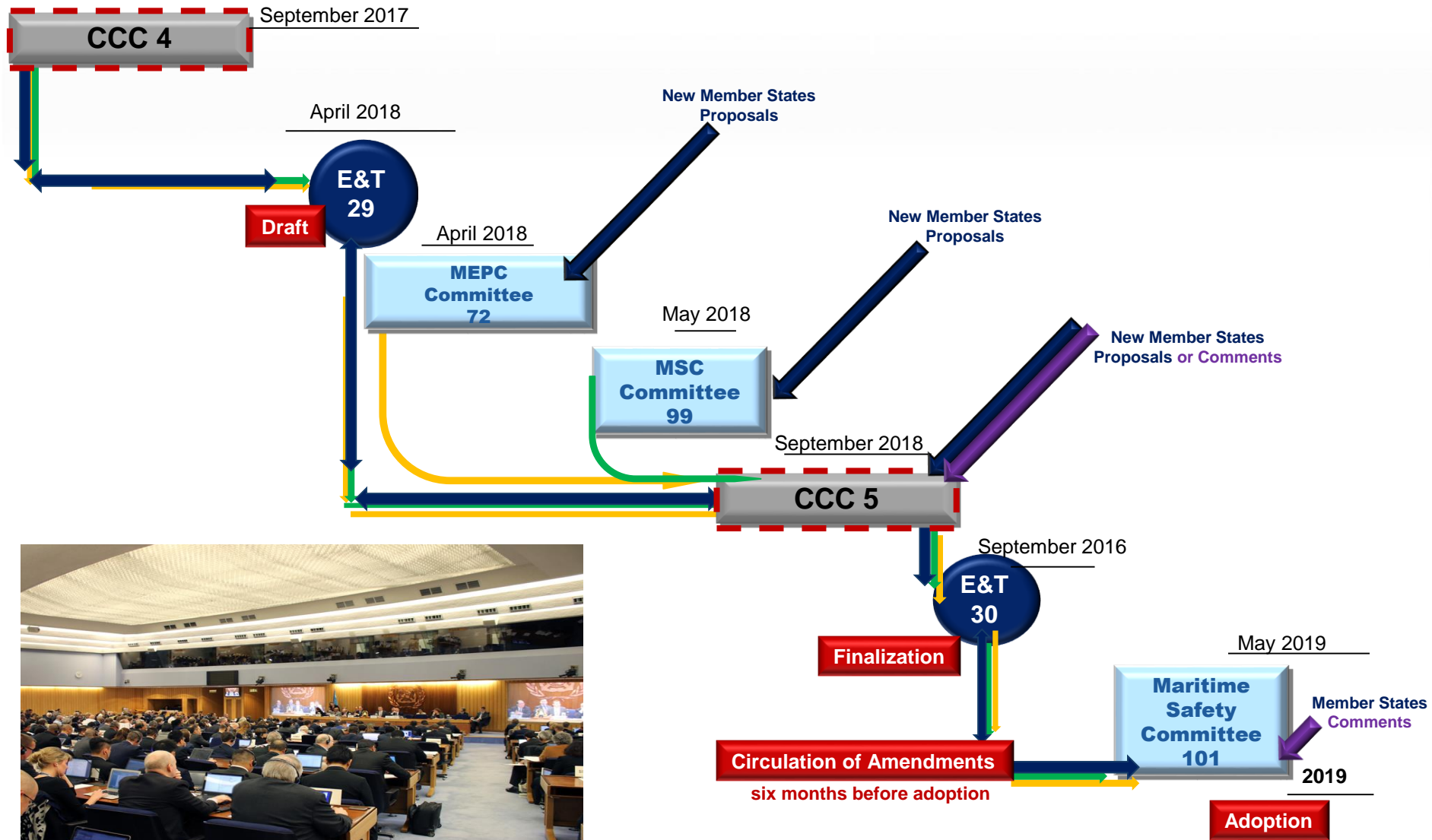
### PROVISIONAL AGENDA

for the fifth session of the Sub-Committee to be held at IMO Headquarters, 4 Albert Embankment, London, SE1 7SR, from Monday, 10 to Friday, 14 September 2018

- Opening of the session
- 1 Adoption of the agenda
- 2 Decisions of other IMO bodies
- 3 Amendments to the IGF Code and development of guidelines for low-flashpoint fuels
- 4 Suitability of high manganese austenitic steel for cryogenic service and development of any necessary amendments to the IGC Code and the IGF Code
- 5 Amendments to the IMSBC Code and supplements
- 6 Amendments to the IMDG Code and supplements
- 7 Amendments to the CSS Code with regard to weather-dependent lashing
- 8 Unified interpretation of provisions of IMO safety, security and environment-related conventions
- 9 Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas
- 10 Biennial status report and provisional agenda for CCC 8
- 11 Election of Chair and Vice-Chair for 2019
- 12 Any other business
- 13 Report to the Committees



# The way it flows... Next Amendment 05-19



# Regulatory Framework



## INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA

### SOLAS

#### Chapter VI

#### Carriage of Cargoes and oil fuels

Part A-1, Carriage of dangerous goods in solid form in bulk

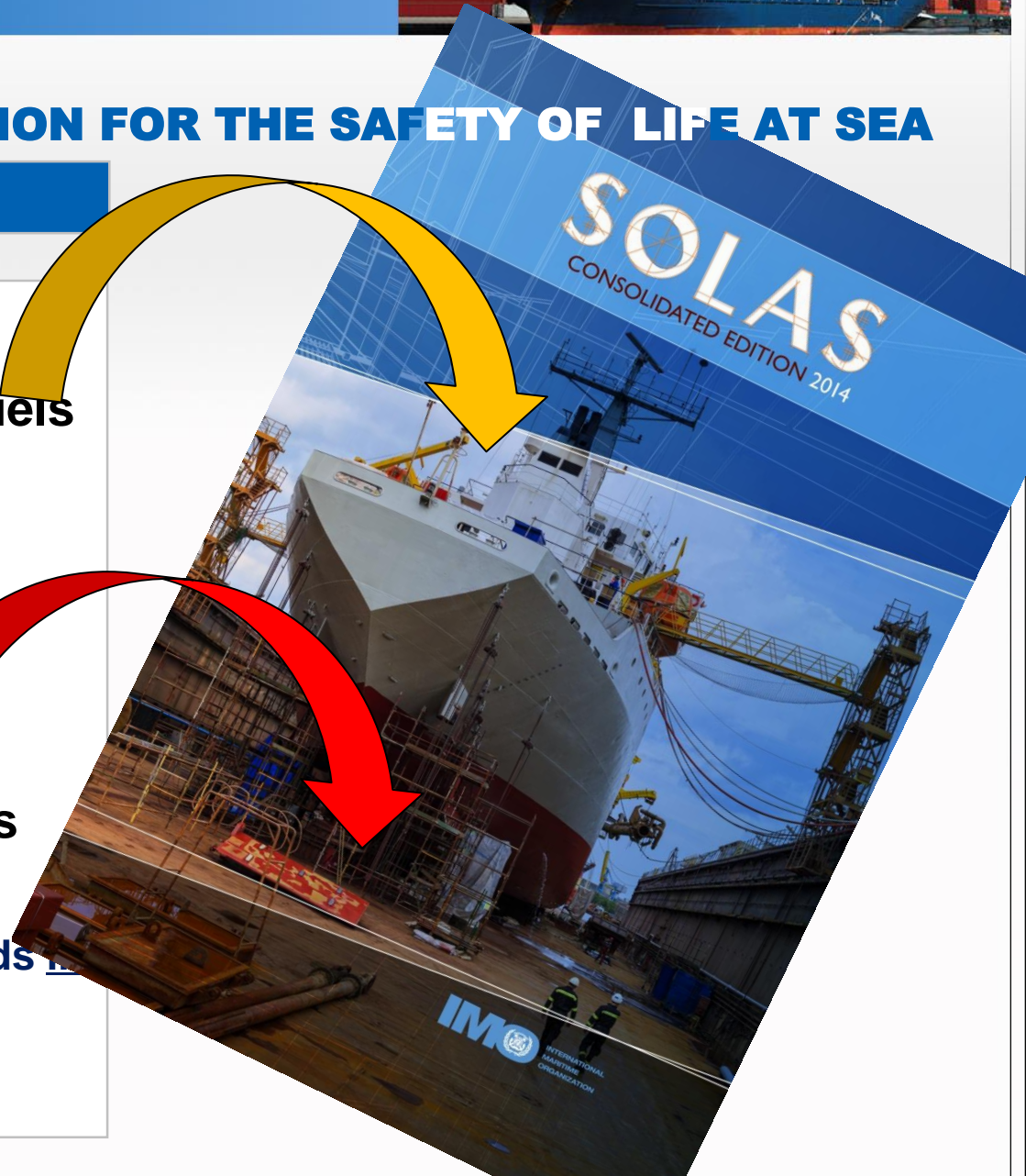
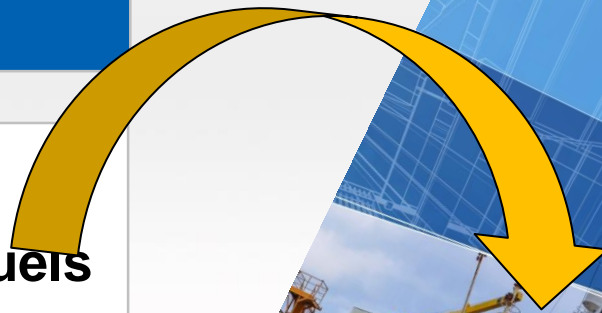
**IMSBC Code**

#### Chapter VII

#### Carriage of Dangerous Goods

Part A, Carriage of dangerous goods in packaged form

**IMDG Code**



# Regulatory Framework



## IMDG Code

Provisions deal with the stowage, segregation, packaging, classification, labelling, marking and placarding of dangerous goods,

Harmonized with the **UN Recommendations on the Transport of Dangerous Goods** (The Orange Book)

Updated every two years to reflect, amongst others\*, relevant decisions of UNCOE

\*Member State proposals to new regulation or amendment to existing one.

MARPOL Annex III refers to IMDG Code in the context of harmful substances carried by sea in package form (i.e. Marine Pollutants “P”)

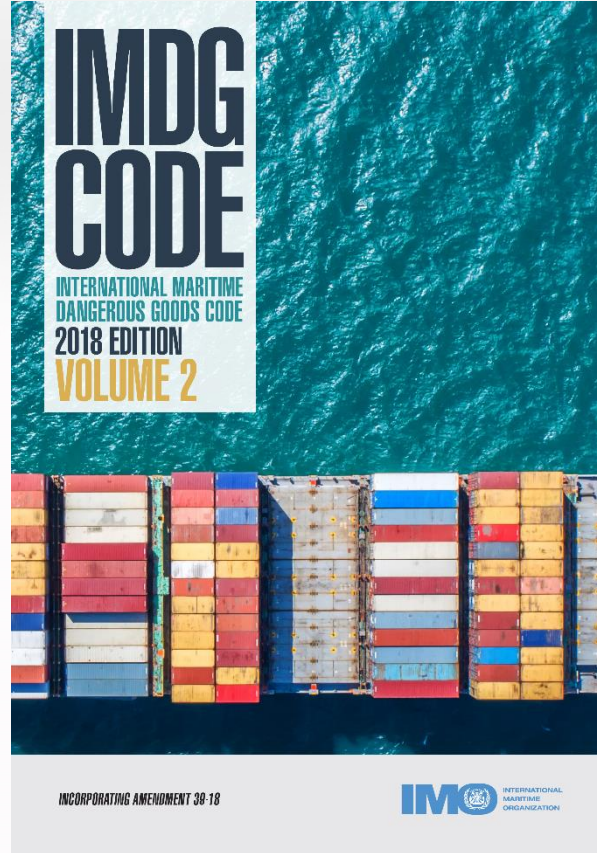


# IMDG Code

## Volume 1



## Volume 2



## Supplement



# Regulatory Framework



## IMDG Code....."its life"

In 1965 IMO 4th Assembly, adopted the IMDG Code as a Recomendatory instrument only!!!

Then,.....Many changes since.....both, in appearance and content!

### RESOLUTIONS ADOPTION OF THE INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE

In 2002 the [Assembly resolution.716 \(17\)](#) adopted the [Amendments 27 to 31](#) to IMDG Code and decides to give to this a [MANDATORY](#) status from 1 January 2004

### RESOLUTIONS AMENDMENTS

- [MSC.122\(75\)](#) – [text of the IMDG Code, May 2002](#)
- [MSC.157\(78\)](#) - [incorporating amendment \(32-04\), May 2004](#)  
(See also Circular letter No. 2503 of 13 October 2003)
- [MSC.205\(81\)](#) – [incorporating amendment \(33-06\), May 2006](#)  
(See also Circular letter No. 2673 of 31 October 2005)
- [MSC.262\(84\)](#) – [incorporating amendment \(34-08\), May 2008](#)  
(See also Circular letter No. 2820 of 22 October 2007)
- [MSC.294\(87\)](#) – [incorporating amendment \(35-10\), May 2010](#)  
(See also Circular letter No. 2999 of 6 October 2009)
- [MSC.328\(90\)](#) – [incorporating amendment \(36-12\), May 2012](#)  
(See also Circular letter No. 3233 of 15 November 2011)
- [MSC.372\(93\)](#) – [incorporating amendment \(37-14\), May 2014](#)  
(See also Circular letter No. 3414 of 15 October 2013)
- [MSC.406\(96\)](#) – [incorporating amendment \(38-16\), May 2016](#)  
(See also Circular letter No. 3598 of 19 October 2015)
- [MSC.....\(99\)](#) - incorporating amendment (39-18), May 2018  
[is](#) envisaged to enter into force, as a mandatory amendment, from 1 January 2018 with the voluntary application date from 1 January 2017

# Regulatory Framework



## International Maritime Solid Bulk Cargoes Code

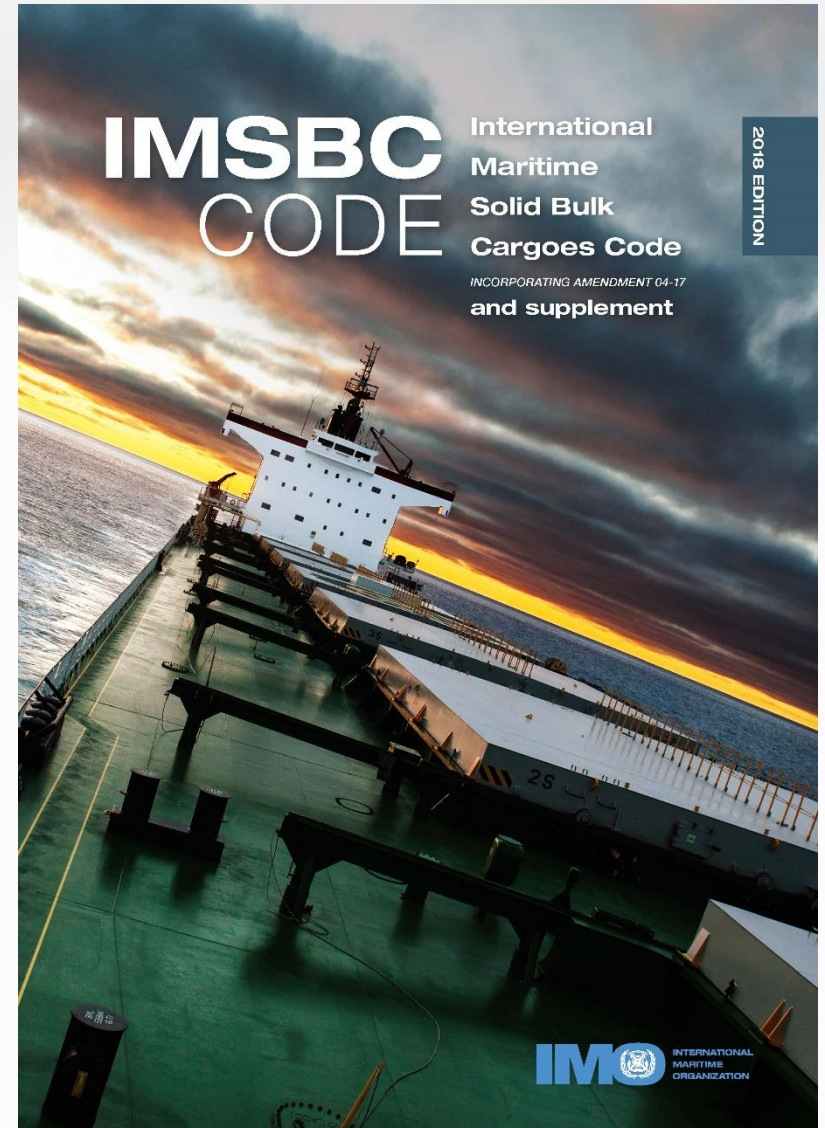
### IMSBC Code....

Provisions facilitate the safe  
stowage and shipment of solid bulk  
cargoes,

Updated every two years

E&T Group deal with amendments to  
IMSBC Code

\*Member State proposals to new regulation or  
amendment to existing one.





# IMSBC Code SEQUENCE EVENTS

## RESOLUTIONS ADOPTION OF THE INTERNATIONAL MARITIME SOLID BULK CARGOES CODE



***In December 2008.....***

**MSC 268(85) – Adoption of the International Maritime Solid Bulk Cargoes (IMSBC) Code**  
with official entry into force 1st January 2011, (2009 Edition)



### RESOLUTIONS AMENDMENTS

**MSC.318(89) – incorporating amendment 01-11,**  
official entry into force on 1 January 2013,  
(2012 Edition)



**MSC.354(92) - incorporating amendment 02-13,**  
mandatory status from 1 January 2015; voluntary application from 1 January 2014  
(Edition 2013)



**MSC.393(95) - incorporating amendment 03-15,**  
mandatory status from 1 January 2017; voluntary application from 1 January 2016  
(Edition 2013)

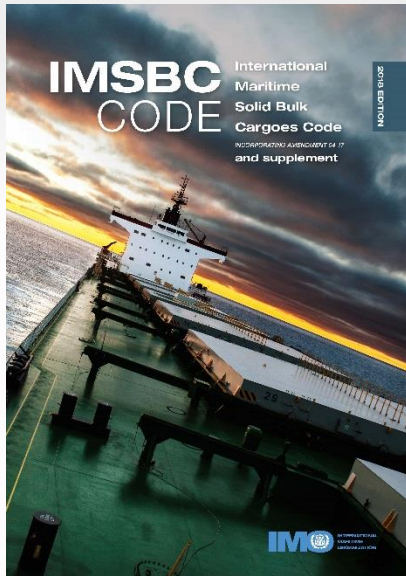


**MSC.426(98) - incorporating amendment 04-17.....Finalized**  
mandatory status from 1 January 2019; voluntary application from 1 January 2018  
(Edition 2018)

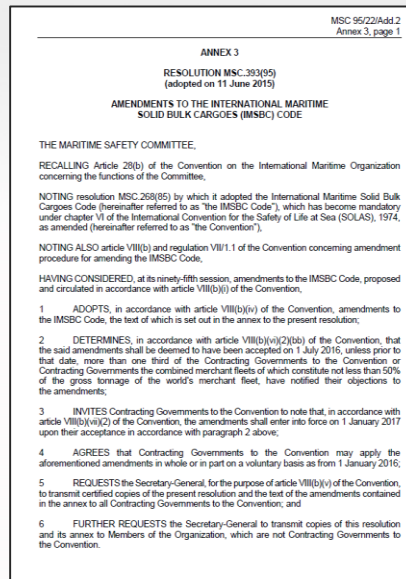
**MSC.XXX(101) - incorporating amendment 05-19.....under preparation**

**New**

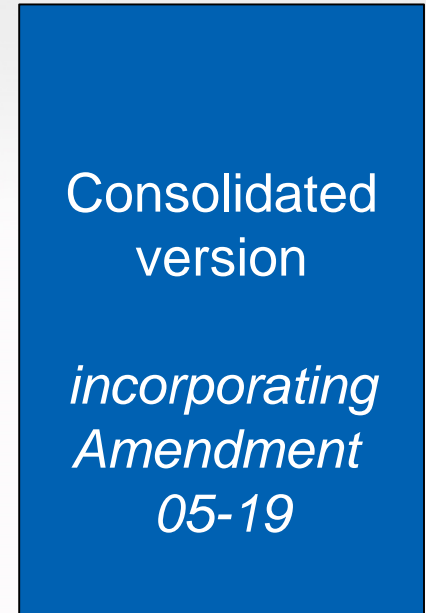
# Currently.....



IMSBC Code  
**2018 Edition**  
*incorporating  
Amendment 04-17*



Resolution  
MSC.....(101)  
*Amendment 05-19*



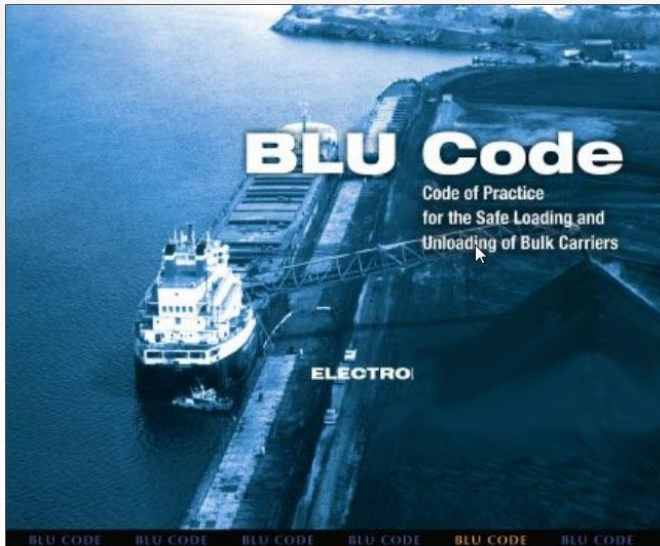
IMSBC Code  
**2019 Edition**

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HME

# BLU Code and BLU Manual in the Supplement of the IMSBC Code



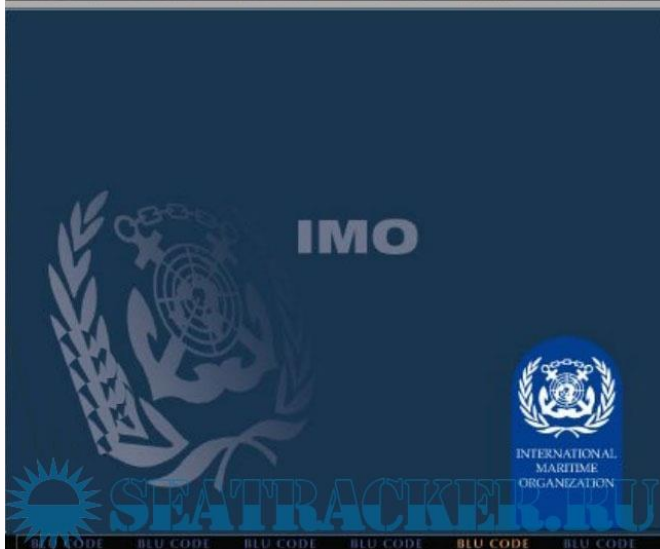
## BLU Code – Code of Practice for the Safe Loading and Unloading of Bulk Carriers

The procedures and plans in the BLU Code must be in place. The master and terminal representative agree to and follow these plans to ensure safe loading and unloading operations.

[Referenced in the IMSBC Code and SOLAS](#)

## BLU Manual – Manual on loading and unloading of solid bulk cargoes for terminal representatives

This was developed to assist terminal representatives to be more aware of their responsibilities under the BLU Code and ultimately under the IMSBC Code



# Dangers

In maritime transport, several solid bulk cargoes are considered dangerous due to risks, that can affect:

- ship stability (e.g. **liquefaction**),
- cause structural damage, fire on board (e.g. self-igniting material),
- pose hazards to human health; or
- lead to other dangerous situations.

## Liquefaction

(2007-2016)

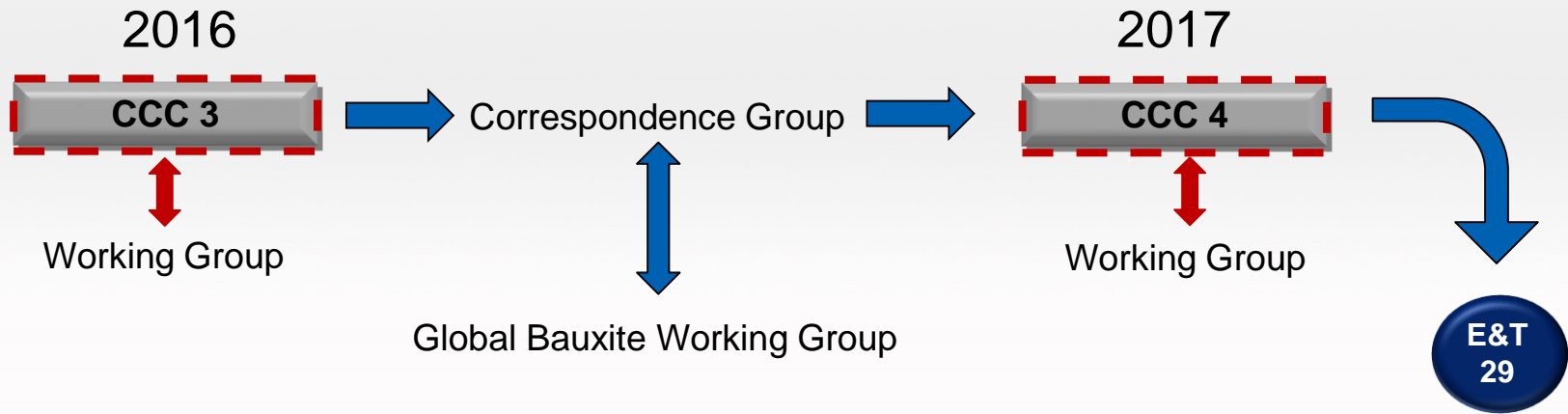
The effect of liquefaction (Group A Cargoes), has led to a heavy loss of life and property for the last 10 years

Losses of life <sup>α</sup>	Losses of ships <sup>α</sup>	Reported cause <sup>α</sup>	Likely root cause <sup>α</sup>
101 <sup>α</sup>	9 <sup>α</sup>	Cargo shift/ liquefaction <sup>α</sup>	Cargo failure <sup>α</sup>

(2017)

Two more ships, **Stellar Daisy** and **Emerald Star**, with (approx.) 22 and 26 fatalities respectively, were reported and investigations are still taking place.

# Latest Developments on BAUXITE



- .1 draft test procedure for determining the TML for Bauxite (Appendix 2);
- .2 draft individual schedule for Bauxite Fines (Group A); and
- .3 draft amendments to the individual schedule for Bauxite (Group C).

# Other related documents

## **-MSC.1/Circ.1453/Rev.1**

Guidelines for the submission of information and completion of the format for the properties of cargoes not listed in the IMSBC Code.

## **-MSC.1/Circ.1454/Rev.1**

Guidelines for developing and approving procedures for sampling, testing and controlling the moisture content for solid bulk cargoes which may liquefy;

## **-BC.1/Circ.74** (of 14 February 2017)

Contact names and addresses of the offices of designated national competent authorities responsible for the safe carriage of grain and solid bulk cargoes.

## **-MSC.1/Circ.1395/Rev.3**

Lists 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.

## **-CCC.1/Circ.2/Rev.1**

Carriage of Bauxite that may liquefy

## **-CCC.1/Circ.4**

Carriage of Ammonium nitrate based fertilizer (non-hazardous)

## **-IMO Model Course based on the IMSBC Code**

Safe transport of solid bulk cargoes (Shore-based personnel)....being defined.  
actors involved in the chain of transport, including cargo storage, handling and loading.  
(i.e. Ship, maritime Administration, port Authority, mine operators, shippers and laboratories



# Training (IMSB Code)



-There are **NO** training provisions within the IMSBC Code

-IMO Technical Cooperation Programme, **capacity building** and advisory missions

-Assistance to Member States to **implement, enforce** and **monitor** IMO instruments.

-**Achieve compliance** with the provisions of SOLAS chapter VI and the International Maritime Solid Bulk Cargoes (IMSB) Code and their obligations as Member States.

-Target the actors involved in the chain of transport, including cargo storage, handling and loading. (i.e. **Ship, maritime Administration, port Authority, mine operators, shippers and laboratories**)



# Dangers....cont, examples

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## Ammonium nitrate based fertilizer (non-hazardous)

Group C Cargoes, ..... Proposal to reclassify it as Group B

Two incidents **MV Purple Beach** and **MV Cheshire**, investigations on-going

It has been discussed that these fertilizers are basically safe, and that it is not the products the cause of incidents but a lack of proper care and exposure to external sources of heat. Meanwhile, CCC.1/Circ.4 on *Carriage of AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)* is the existing tool to raise awareness on the hazards of this cargo until the finalization of the discussions.

Various comments to different sections of the existing individual schedule.

## Coal

### Safety of personnel and ship

#### 3.2 Poisoning, corrosive and asphyxiation hazards

Many solid bulk cargoes are liable to cause oxygen depletion in a cargo space or tank. These include, most vegetable products and forest products, ferrous metals, metal sulphide concentrates and **coal** cargoes.

**Special precautions** Adequate surface ventilation, avoid accumulation of gases prior to operation, Personnel shall not be permitted to enter the cargo space (atmosphere tested) only by trained personnel, breathing apparatus, and special precautions are observed

# Actors, stakeholders

## Member States

-173

## Non-governmental organizations

- International Group of P&I Clubs
- International Association of Dry Cargo Shipowners – INTERCARGO
- International Transport Workers' Federation (ITF)
- Baltic and International Maritime Council (BIMCO)
- European Chemical Industry Council (CEFIC)
- International Chamber of Shipping (ICS)
- ICHCA International Ltd. (ICHCA)
- International Bulk Terminal Association (IBTA)
- International Iron Metalics Association Ltd. (IIMA)
- World Nuclear Transport Institute (WNTI)

## Others

- International Federation of Inspection Agencies – IFIA
- You ?




**Top Stories**





**Mandatory electronic data exchange for international shipping adopted**


IMO adopts revised and modernized annex to the Convention on Facilitation of International Maritime Traffic (FAL). more...

**Hot Topics**

- 

**Polar Code**
- 

**Unsafe mixed migration by sea**
- 

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

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

**What's New**

- 

**Marine Environment Protection Committee meets**

18/04/2016 IMO's Marine Environment Protection Committee (MEPC) is meeting for its 69th session (18-22 April). Among the items on a busy agenda, the MEPC (photos) is set to consider the implementation of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, which is close to reaching entry into force criteria. There will be further work on the energy efficiency of international shipping, including the development of the data collection system for ships' fuel consumption. more...
- 

**Secretary-General supports India's active maritime growth policy**

14/04/2016 IMO Secretary-General Kitack Lim shared a platform today (14 April) with India's Prime Minister Narendra Modi at the launch of the first Maritime India Summit in Mumbai. The event brings together stakeholders from diverse sectors of India's maritime community to explore opportunities to promote growth and investment in the sector. Mr Lim said that a successful shipping and port sector signified that a country was thriving. A policy to support these areas would be of great benefit to the country as a whole, not just to the maritime industry itself, he added. more...

**Secretary-General**



**IMO Meetings**

- ▶ Marine Environment Protection Committee (MEPC) (18/04/2016 - 22/04/2016)
  - ▶ Maritime Safety Committee (MSC) (11/05/2016 - 20/05/2016)
  - ▶ Legal Committee (LEG) (06/06/2016 - 10/06/2016)
- More Meetings...  
[IMO Documents \(IMODOCS\)](#)

**IMO Twitter**



**Resources**

- ▶ [Global Integrated Shipping Information System \(GISIS\)](#)
- ▶ [Summary of Internal Audit Activities and Reports for the reporting year ending 31 December 2015](#)

**New approach to maritime security needed**

underpins and enables sustainable maritime development which supports improved and sustainable economic development. This was the message delivered by IMO's Chris Trelawny, who was speaking at the International Sea Power and Security Symposium 2016, held in Istanbul, Turkey



Information?  
[www.imo.org](http://www.imo.org)  
 look for  
 IMO Docs  
 or  
 GISIS

## Meeting Documents

### Assembly

- Application Form for Receptions
- Assembly Committee Documents
- Assembly Documents
- Assembly Resolutions
- Assembly Summary Records
- AWGPI Documents

### Committee

- FAL Committee - Facilitation Committee
- LEG Committee - Legal Committee
- MEPC Committee - Marine Environment Protection Committee
- MSC Committee - Maritime Safety Committee
- Procedural Guidelines - Guidelines for the work of the Council, committees and their subsidiary bodies
- TC Committee - Technical Cooperation Committee

### Conference

- AFS/CONF Documents
- BWM/CONF Documents
- CB/CONF Documents
- HNS-OPRC/CONF Documents
- LEG/CONF Documents
- MP/CONF Documents
- SFV-P/CONF Documents
- SOLAS/CONF Documents
- SR/CONF Documents
- STCW/CONF Documents

### Council

- C/ES Documents - Council extraordinary
- CIWGAA Documents
- CIWGOR Documents
- Council Documents
- Council Summary Records
- CWGP Documents
- CWGRM Documents
- CWGSP Documents
- JWGMSA Documents
- SF-WG - Working Group on the Development of a New Strategic Framework

### London Convention/Protocol

- IMO/LC-WG Documents
- LC Documents
- LP Documents
- LP-CG Documents
- SG Documents

### NGOs

- Applications for Consultative Status
- Periodic Reviews
- Rules and Guidelines

### Sub-Committee

- CCC - Sub-Committee on Carriage of Cargoes and Containers (formerly DSC)
- HTW - Sub-Committee on Human Element, Training and Watchkeeping (formerly STW)
- III - Sub-Committee on Implementation of IMO Instruments (formerly FSI)
- NCSR - Sub-Committee on Navigation, Communications and Search and Rescue (formerly COMSAR and NAV)
- PPR - Sub-Committee on Pollution Prevention and Response (formerly BLG)
- SDC - Sub-Committee on Ship Design and Construction (formerly DE, FP and SLF)
- SSE - Sub-Committee on Ship Systems and Equipment (formerly DE, FP and SLF)

### Others

- Basic Documents
- Casualty Analyses
- FSA Training course - FSA Training course
- GlobalReg - Set of standards regulations on non=Convention ships
- Glossaries - Multilingual Glossaries
- HLIMM - Inter-agency meeting on the travelling of migrants by sea from countries in North Africa to Europe
- HSSC Guidelines
- IMO Posts and Staff
- International Maritime Prize - International Maritime Prize
- IUU Fishing - 3rd FAO-IMO JWG on IUU Fishing and related matters
- JOBS
- Lessons Learned - Lessons Learned for Presentation to Seafarers
- PROG of meetings - Programme of Meeting
- PSCWS
- SOLAS amendemnt cycle & process
- STATUS CONVENTIONS - Annual Status of Conventions
- UPDATE-EW





## Reporting Requirements

Status and completeness of information in GISIS received from IMO members.



## Marine Casualties and Incidents

Data on marine casualties and incidents, as defined by circulars MSC-MEPC.3/Circ.3.



## Port State Control

Information communicated under the provisions of SOLAS regulation 1/19, article 11 of MARPOL, article 21 of Load Lines, article X(3) of STCW and the Procedures for port State control.



## Dangerous Goods Carriage Difficulties

Reports on difficulties encountered in relation to the carriage of dangerous goods including class 7 radioactive materials.



## Risk Management

Information on the status of risk events related to the Secretariat's business plan.



## Survey and Certification

Exemptions and equivalents, and specimens of certificates.



## Member State Audits

Information on audits under the IMO Member State Audit Scheme.



## Maritime Security Public Area

Information communicated under the provisions of SOLAS regulation XI-2/13 (SOLAS chapter X1-2 and the ISPS Code).



## Port Reception Facilities Public Area

Data on the available port reception facilities for the reception of ship-generated waste.



## Pollution Prevention Equipment Public Area

Pollution prevention equipment required by MARPOL 73/78.



## Facilitation of International Maritime Traffic Public Area

Reports on unsafe practices associated with the trafficking or transport of migrants by sea (MSC/Circ.896/Rev.1).



## Non-mandatory Instruments Public Area

Comprehensive list of non-mandatory IMO instruments relating to safety and security.



## Condition Assessment Scheme Public Area

Electronic database for the implementation of the Condition Assessment Scheme - Resolution MEPC.94 (46), as amended.



## Evaluation of Hooks Public Area

Reports on evaluation of hooks according to the Guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392).



## Ship and Company Particulars

Ship identification and particulars.



## Status of Treaties

Status of ratification of IMO conventions, including global tonnage figures.



## Simulators

Information on simulators available for use in maritime training.



## Organizational Planning

Information on the status of planned and new outputs related to the High-level Action Plan.



## Country Maritime Profile

Information from Member States to enable targeted technical co-operation and resources.



## Development of Amendments

Development of amendments to the 1974 SOLAS Convention and related mandatory instruments.



## Greenhouse Gas Emissions

Reference should be made to MEPC.1/684 Guidelines for voluntary use of the ship Energy Efficiency Operational Indicator (EEOI).



## Recognized Organizations Public Area

Information submitted by Member States under MSC/Circ.1010-MEPC/Circ.382.



## Contact Points Public Area

Electronic database for Contact Points.



## Piracy and Armed Robbery Public Area

Reported incidents of piracy and armed robbery.



## Inter-agency platform for information sharing on migrant smuggling by sea Public Area



## Radiocommunications and Search and Rescue Public Area

Information on the availability of Search and Rescue (SAR) Services.



## MARPOL Annex VI Public Area

Notifications communicated under the provisions of MARPOL Annex VI (Regulations for the Prevention of Air Pollution from Ships).



## IMDG Code Public Area

Reported cases of disparities between versions of the IMDG Code.

Thank you



[www.imo.org](http://www.imo.org)

“

**Maritime activity  
can both drive and  
support a growing  
national economy**

IMO Secretary-General  
Kitack Lim

”

