



INTERNATIONAL
MARITIME
ORGANIZATION

Key Outcomes from MSC 111 on IMDG Code Amendment 43-26 CTU Code

RPMASA Webinar | 2026 Updates to Dangerous Goods & GHS Regulations

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IMDG?

Code?

when?

what?

SOLAS?

how?

who said?

where?

why?

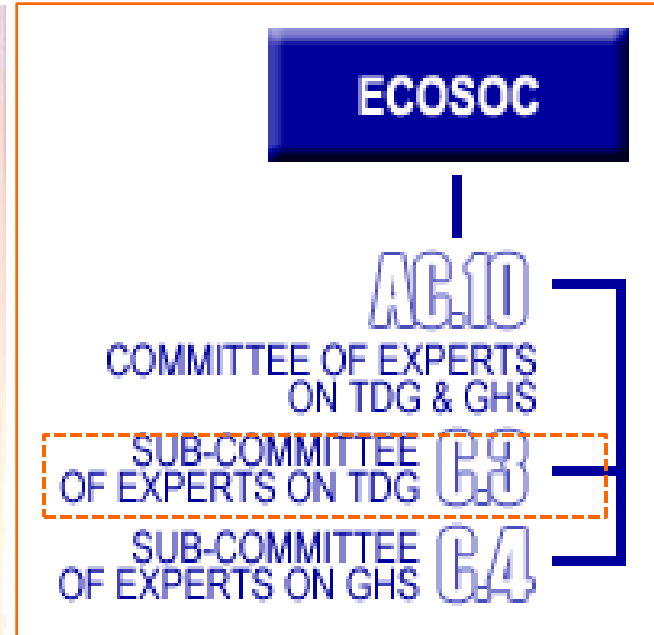
IMSBC

MARPOL?



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

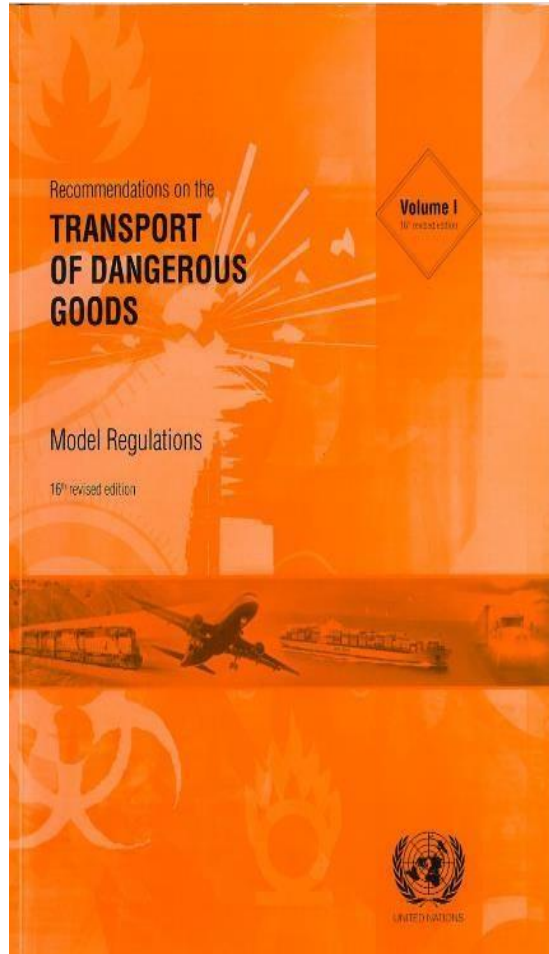


Sub-Committee of Experts on the Transport of Dangerous Goods

In 1956 established **minimum 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 UN Model Regulations ,



“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.*



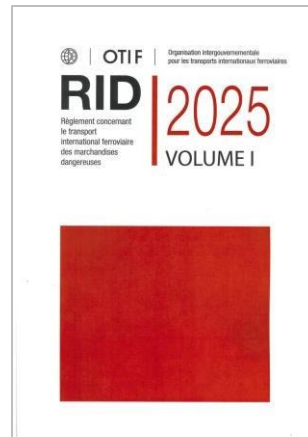
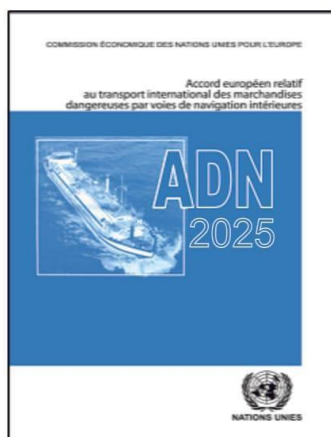
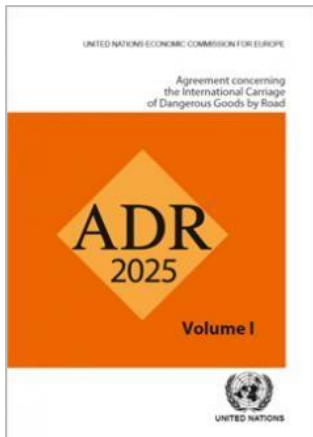
ADR_____ European Agreement concerning the International Carriage of dangerous goods by **Road**.

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.*

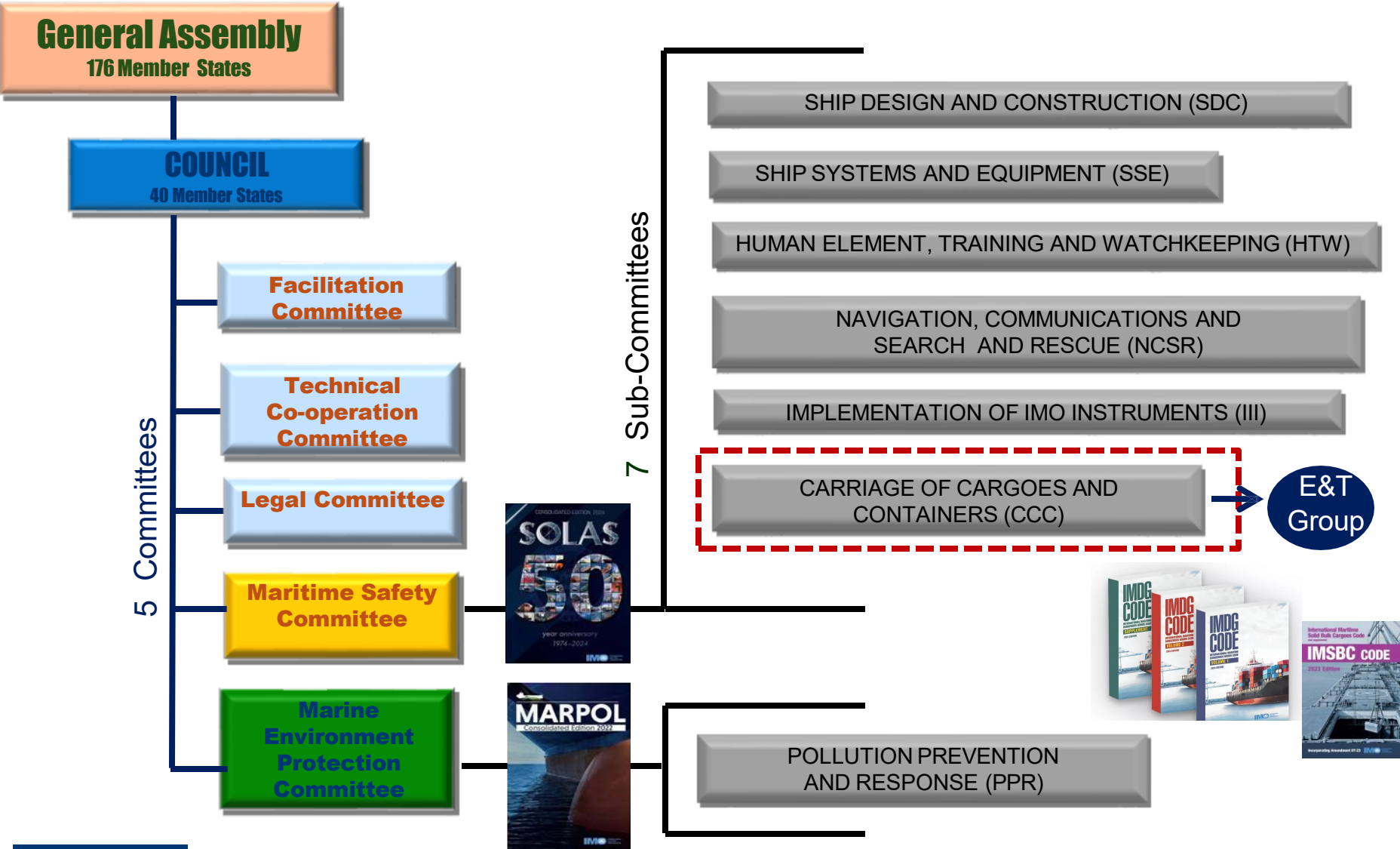


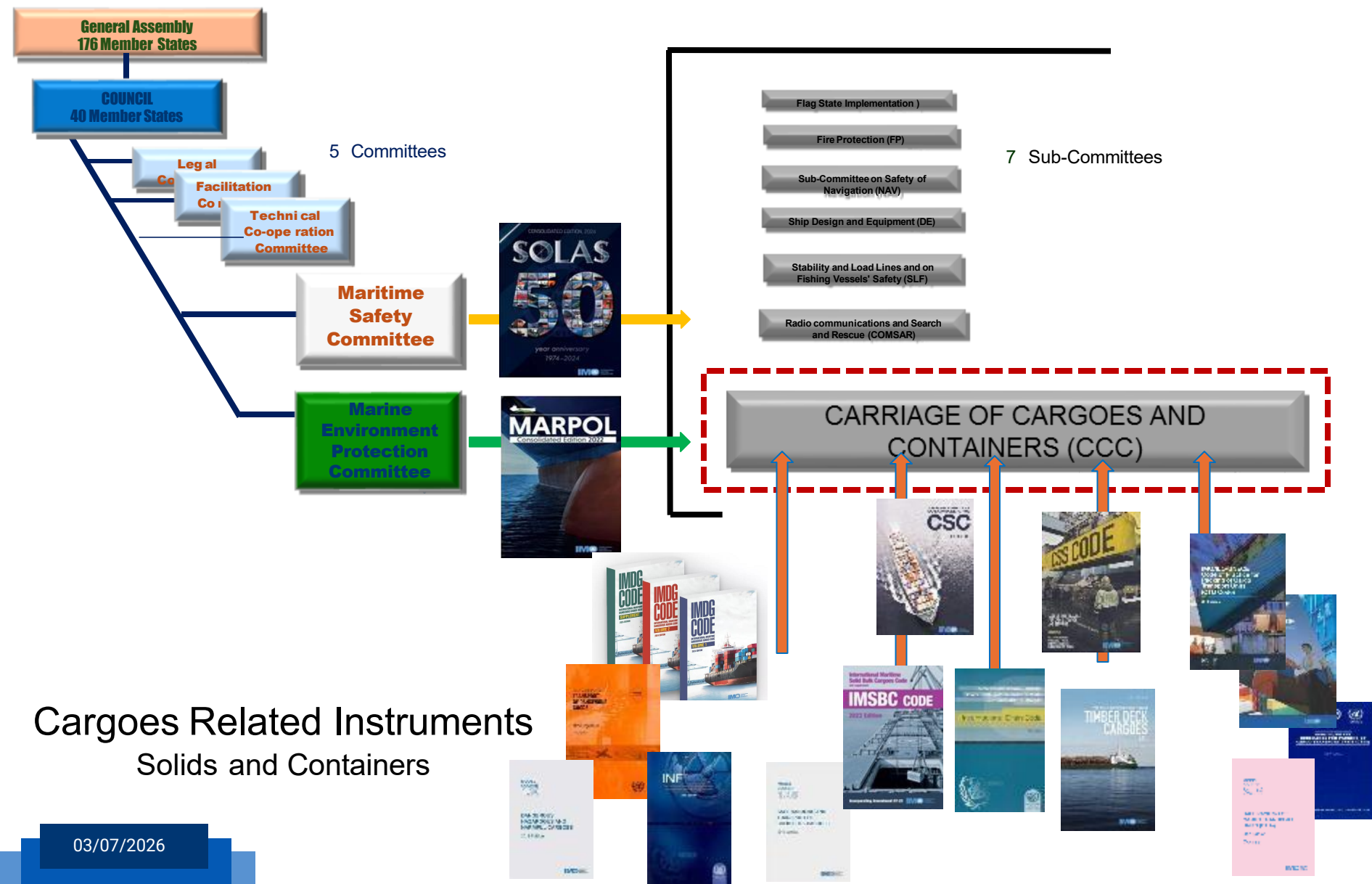
IMO is an intergovernmental body that deals with matters on sea transport, which are referred to it by its Member Governments.

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

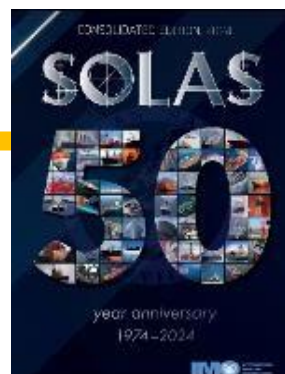
The practical design and application of the regulations is the responsibility of the national maritime Administrations concerned.

How it works



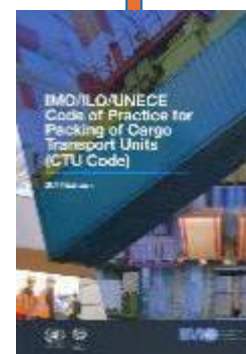


**Maritime Safety
Committee**

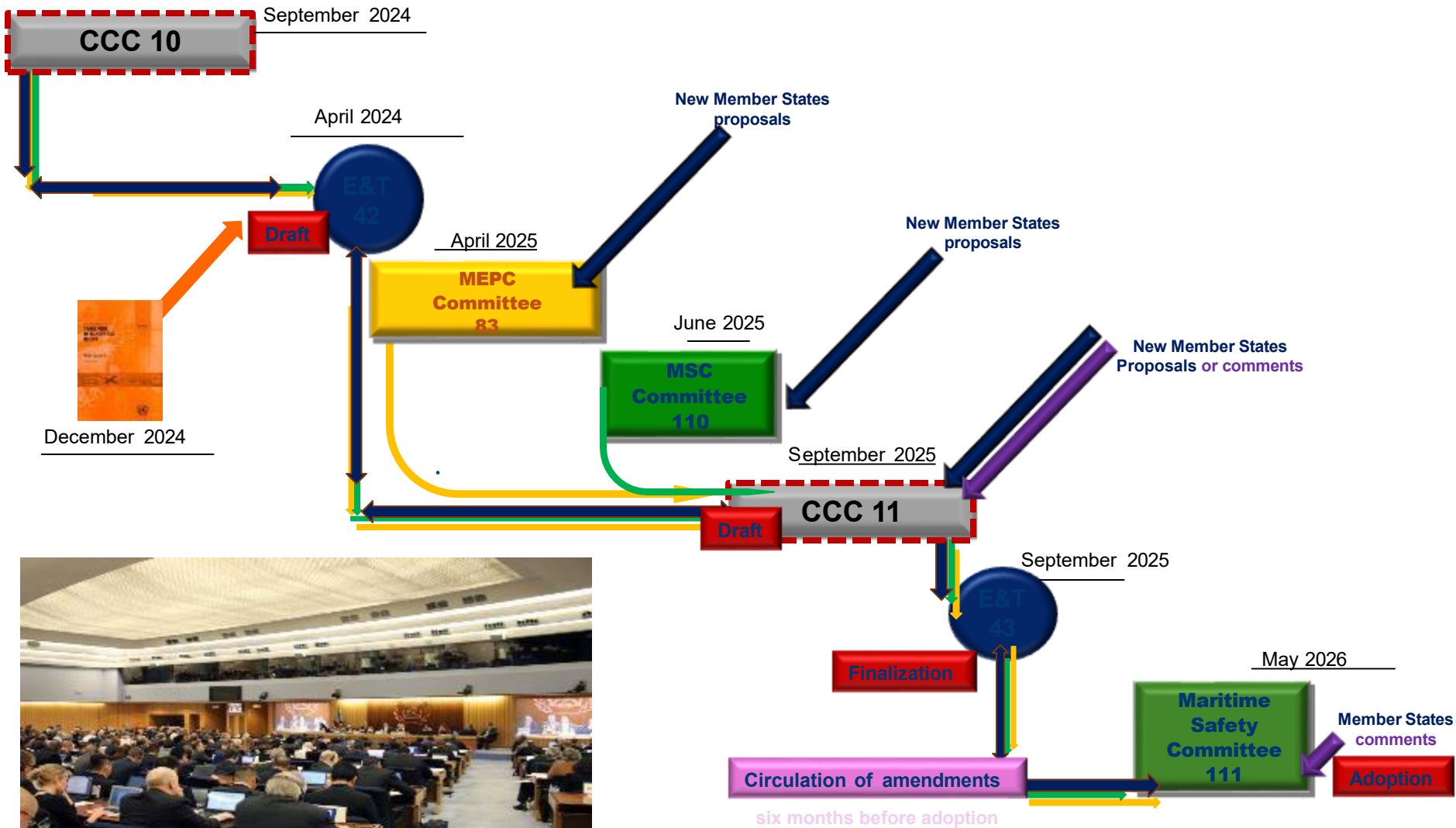


**Marine
Environment
Protection
Committee**

**CARRIAGE OF CARGOES AND
CONTAINERS (CCC)**



The way it flows - next amendment 43-26



Regulatory Framework

IMDG Code

segregation, packaging, classification, labelling, marking and placarding of dangerous goods in package form

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

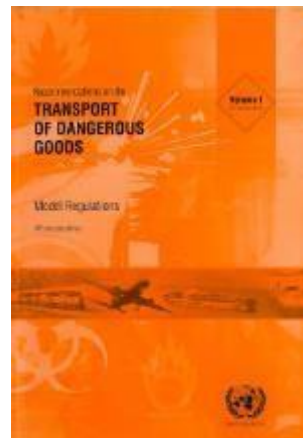
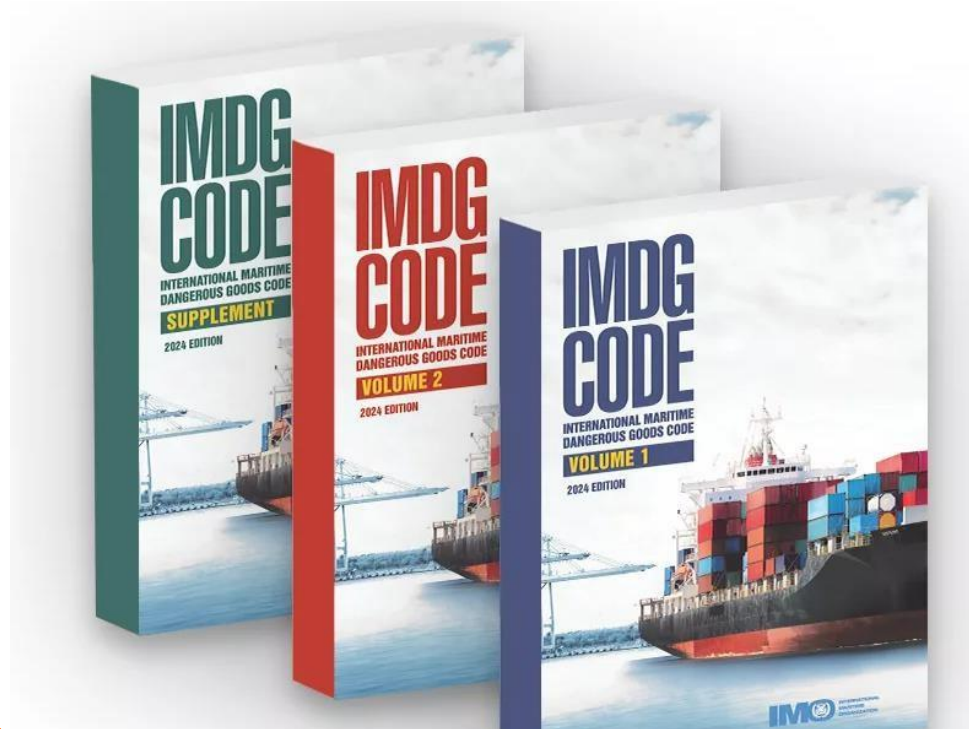
Updated every two years to reflect, amongst
others*, relevant
decisions of UNCOE

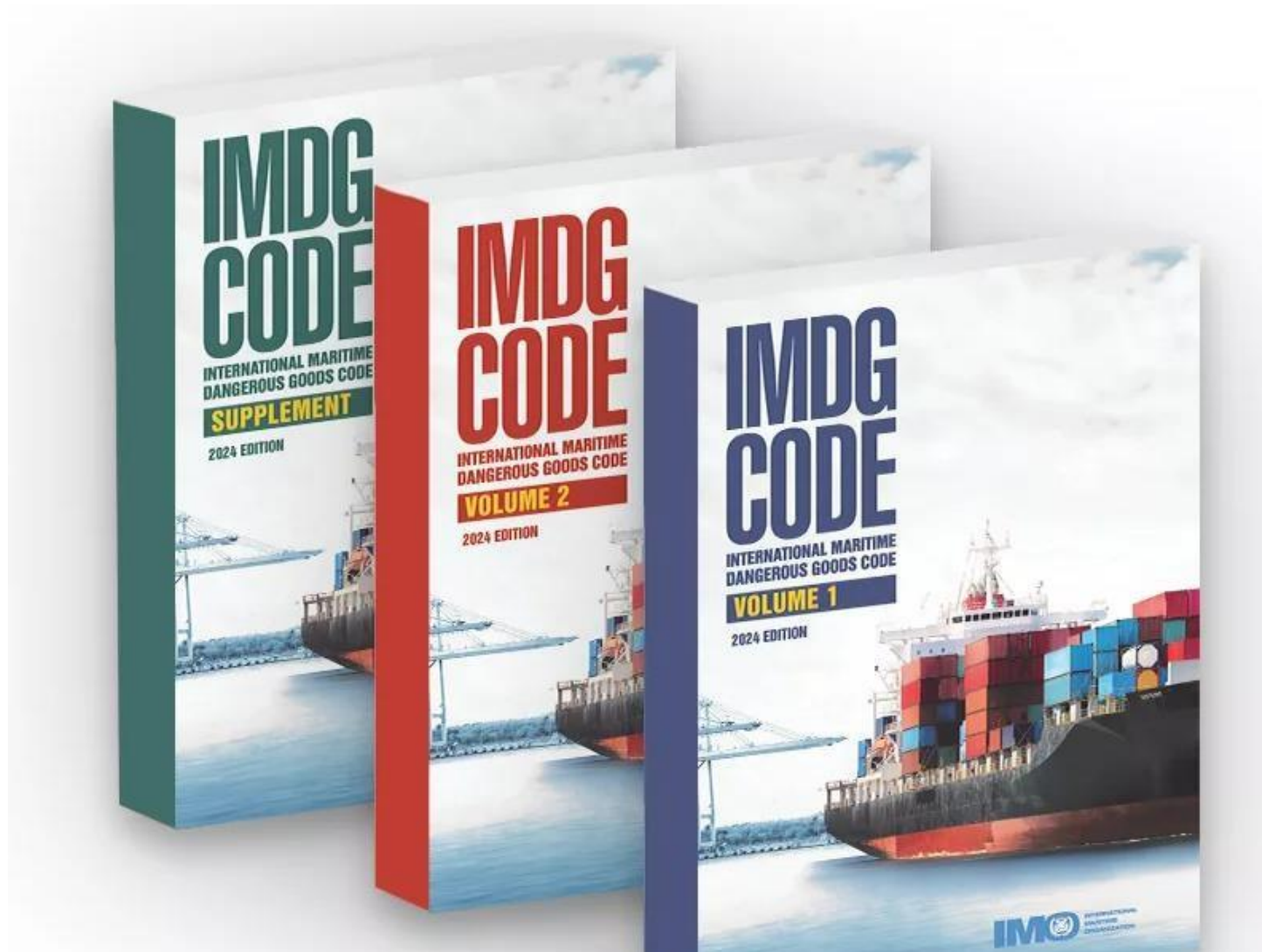
*Member State proposals to new regulation or amendment
to existing one.

MARPOL Annex III - Marine Pollutants

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

Protocol I (1978), Report of Incidents

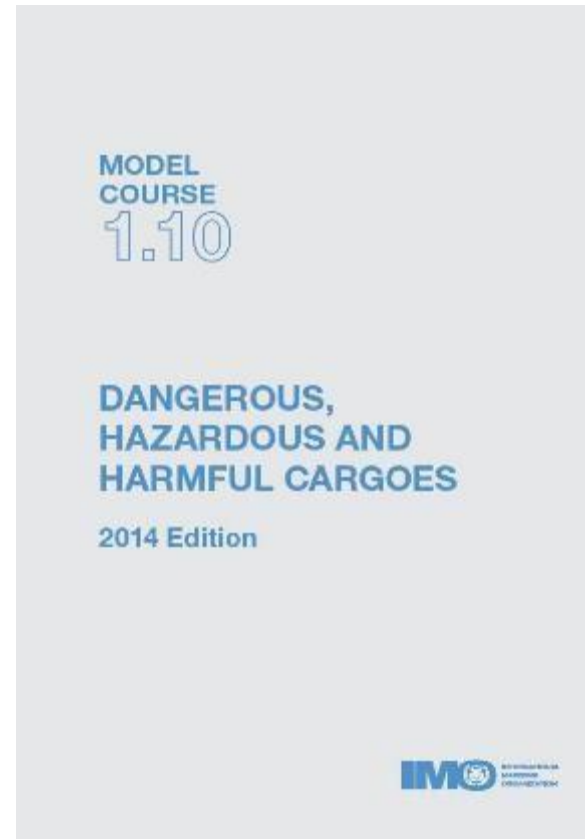




MSC.587(111) - incorporating amendment (43-26), May 2026

- Voluntary application from 1 January 2027
- Mandatory application from 1 January 2028

IMO Model Courses.....related to Cargoes



Training, capacity building.....



Regulatory pathway — from draft to mandatory Code

1

MSC 109

Approved two intersessional E&T meetings in 2025 to prepare the next IMDG amendment.

2

CCC 10

Instructed E&T 42 to prepare draft Amendment 43-26 and editorial corrections to Amendment 42-24.

3

E&T 42

Drafted Amendment 43-26 (CCC 11/6, annex 4).

4

CCC 11

Authorized E&T 43 to finalize the draft, taking into account comments and decisions.

5

E&T 43

15–19 September 2025, finalized Amendment 43-26 and consequential EmS Guide amendments.

6

MSC 111

2026 consideration and adoption under SOLAS article VIII.

Application timeline — when does it apply?

1

1 January 2026

Amendment 42-24 enters into force. E&T 43 finalized English, French and Spanish editorial corrigenda before this date.

2

1 January 2027

Voluntary application of Amendment 43-26 begins. Industry alignment window for procedures, documentation, training records and software.

3

1 January 2028

Mandatory entry into force of Amendment 43-26, after adoption by MSC 111 in 2026.

Capacity-building (annex 7)

No new legislation, equipment, training or infrastructure required.

Overview of Amendment 43-26

Part 1 — General provisions

New pV-product, usable water capacity and single packaging definitions; GHS updated to the 11th revised edition.

Part 2 — Classification

Energetic samples flow chart (Fig. 2.0.1); articles covering lithium ion, lithium metal and sodium ion batteries.

Part 3 — DGL & Special Provisions

New SP 980 (vehicles); revised SP 961 / SP 962; new SP 410, 411, 412, 413; new UN 3561–3564.

Part 4 — Packing & tank provisions

Salvage pressure receptacles PVP marking; new PP98, PP99, PP100; new TP43.

Part 5 — Consignment procedures

Battery mark renamed; co-location with class 9A label.

Overview of Amendment 43-26

Part 6 — Construction & testing

New chapter 6.10.3 on fibre-reinforced plastic (FRP) service equipment; wide ISO update.

Part 7 — Transport operations

Metre-based Class 7 segregation; two independently powered temperature-measuring devices.

Focus for implementation: definitions, vehicle transport provisions, battery entries, pressure receptacles, CTU loading, and operational controls.

Part 1 — Definitions and new concepts

pV-product (pressure-volume product) — new concept, expressed in bar L. Caps the equivalent containment hazard of cylinders, tubes, bundles and salvage pressure receptacles at 1.5 million bar L.

Usable water capacity — water capacity of a salvage pressure receptacle remaining after installation of equipment to open or drill a stored pressure receptacle.

Single packaging — formal definition added: a packaging that does not require any inner packaging to perform its containment function during transport.

GHS — reference updated from the 10th to the 11th revised edition (ST/SG/AC.10/30/Rev.11).

Manual of Tests and Criteria — reference updated to ST/SG/AC.10/11/Rev.8 and Amend.1.

Part 3 — Safe transport of vehicles, new SP 980

Scope — SP 980 is assigned to UN 3166, 3171, 3556, 3557 and 3558. SP 404 and SP 405 are deleted.

Exemption — not applicable to vehicles driven on board under their own power by a passenger, when carried on ro-ro passenger ships as defined in SOLAS regulation II-2/3.42.

Consignor's obligation — assess the safety condition of each vehicle before offering it for transport.

Do not offer — where signs of leakage, damage to electric equipment or supplemental restraint systems, or impact from extreme events are present.

Corrective action — if any condition applies, the vehicle is not offered unless corrective actions have been taken and their effectiveness evaluated. Batteries under SP 376 shall be removed. Waste vehicles are also subject to 2.0.5.



Vehicle on flatrack - Photo by shashi kallada

Part 3 — Vehicle exemptions, SP 961 and SP 962 revised

SP 961

- **SP 961** - vehicles not subject to most of the Code: stowage on vehicle / special-category / ro-ro spaces with no leakage from battery, engine, fuel cell, compressed gas cylinder, accumulator, fuel system or braking system.
- **SP 961** - covers flammable-liquid vehicles with flashpoint $\geq 38\text{ }^{\circ}\text{C}$ and $\leq 450\text{ L}$; empty-tank vehicles with flashpoint $< 38\text{ }^{\circ}\text{C}$; flammable-gas vehicles with empty tank, pressure $\leq 2\text{ bar}$ and shut-off valve closed; battery or sodium-battery vehicles with battery insulated.
- **Limitations** - .2 to .4 do not apply to hybrid EVs (SP 388); .5 does not apply to lithium-battery vehicles.

Part 3 — Vehicle exemptions, SP 961 and SP 962 revised

SP 962

- **SP 962** - class 9 if SP 961 not met: liquid-fuel tank $\leq 1/4$ full and ≤ 250 L; gas shut-off valve closed; installed batteries meeting SP 388 or SP 977 and electrically insulated.
- **Unpackaged vehicles** - not subject to chapter 5.2 marking and labelling, but placarding of CTUs (chapter 5.3) applies regardless of whether the vehicle is packaged or unpackaged.



Class 9 — lithium, sodium-ion and hybrid batteries

New SP 410 — hybrid batteries (lithium-ion + sodium-ion cells), assigned to UN 3480, 3481 or 3536. Cells must be electrically connected; battery tested as a lithium-ion battery; each cell meets UN Manual of Tests and Criteria sub-section 38.3.

New UN entries — UN 3563 LITHIUM METAL BATTERIES INSTALLED IN CARGO TRANSPORT UNIT and UN 3564 SODIUM ION BATTERIES INSTALLED IN CARGO TRANSPORT UNIT. UN 3536 renamed accordingly. Stowage Cat. D, EmS F-A / S-I, SW1 and SW2.

Battery mark (5.2.1.10) — “Lithium or sodium ion battery mark” is renamed “Battery mark”. Vehicles powered only by hybrid batteries are assigned to UN 3556.

Class 7 — metre-based segregation

Segregation distances for radioactive material are now expressed in metres rather than using legacy descriptive terms.

Implementation point

Update operating procedures, documentation and software fields to use metre-based Class 7 segregation values.

Table 7.1.4.5.18 – Class 7 – Radioactive material
Segregation table for persons

Sum of transport indices (TI)	Segregation distance of radioactive material from passengers and crew ¹		
	Containership ² General cargo ship ² , Ro-ro ship ² , Barge carrying ship ²	Ferry, etc. ³	Offshore Support Vessel ⁴
≤ 10	At least 6 m	Stow at bow or stern furthest from living quarters and regularly occupied work areas	Stow at stern or at platform midpoint
10 < TI ≤ 20	<u>At least 8 m</u>	as above	as above
20 < TI ≤ 50	At least 13 m	as above	not applicable
50 < TI ≤ 100	At least 18 m	as above	not applicable
100 < TI ≤ 200	At least 26 m	as above	not applicable
200 < TI ≤ 400	At least 36 m	as above	not applicable

Part 3 — Other new entries and special provisions

Heating Machines — UN 2857 and UN 3358 now cover refrigerating or heating machines. SP 119 and SP 291 amended; machines that perform both functions may be transported under either entry.

SP 411 — MRI scanners (UN 3538): articles containing non-flammable, non-toxic gas within the MRI scanner components. Below 12 kg of gas, the MRI scanner is not subject to the Code.

SP 412 — dimethyl ether: assigned to UN 1075 and UN 1965; entries may not contain more than 12% by mass of dimethyl ether.

SP 413 — LOHC: liquid organic hydrogen carriers under UN 3082 only when physically-dissolved hydrogen does not exceed 0.5 L(H₂)/kg(LOHC).

New chlorophenol entries — UN 3561 CHLOROPHENOLS, CORROSIVE, TOXIC, SOLID, N.O.S. and UN 3562 CHLOROPHENOLS, CORROSIVE, SOLID, N.O.S.; UN 2020 and 2021 renamed TOXIC variants; UN 2941 deleted.

Parts 4 and 6 — Packagings, IBCs and pressure receptacles

Salvage pressure receptacles — new PVP mark: approval based on test pressure, usable water capacity and pV-product. Maximum pV-product is the lower of 1.5 million bar L or the receptacle's own (test pressure × usable water capacity).

Transitional provision — receptacles ≤ 3,000 L may continue without PVP mark until 31 December 2030.

Cylinders, tubes and bundles — definitions amended to cap pV-product at 1.5 million bar L (bundles use total water capacity of all pressure receptacles).

New packing provisions — PP98 (UN 2029), PP99 (transitional relief for plastics drums 5–20 L for UN 3082 mixtures with highly-toxic ingredients until 31 December 2034) and PP100 (UN 0012 and UN 0014 in metal outer packagings).

Portable tanks — T1 may continue via new TP43 until 31 December 2028.

ISO update — ISO 535:2023; ISO 11114-1:2020 + Amd 1:2023; ISO 1496-3:2019 and 1496-4:2023; ISO 18119 + Amd 2:2024; ISO 10297:2024; ISO 14246:2022.

Part 6 — New section 6.10.3, FRP service equipment

Scope — first full coverage of fibre-reinforced plastic (FRP) service equipment for portable tanks intended for classes 1, 3, 5.1, 6.1, 6.2, 8 and 9, whether the tank shell is metallic or FRP.

Design — service temperature $-40\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$; test pressure = $1.5 \times \text{MAWP}$ ($= 4 \times \text{MAWP}$ for stop valves and fittings).

Materials & manufacturing — resins include polyester, vinyl ester, epoxy, phenolic and thermoplastic; HDT $\geq 20\text{ }^{\circ}\text{C}$ above max service temp and $\geq 70\text{ }^{\circ}\text{C}$; compression / injection moulding, RRIM or hand lay-up.

Design criterion — $\text{FC} = 1/\text{K}$, $\text{K} = 4$, new K5 factor for salt fog and UV degradation. Type approval certificate by competent authority; service-life inspection programme.

Parts 5 and 7 — Marking, consignment and operations

Battery mark (5.2.1.10) — renamed; also applies to cells/batteries transported under SP 188 or SP 400. Co-located with chapter 5.2.2 labels other than 9A. Button cells in equipment do not count toward package or consignment limits.

Stacking-test orientation (7.3.3.7) — packagings that have undergone a stacking test must be loaded in the same orientation as the tested samples.

Temperature-controlled CTUs (7.3.7.4.3) — the two temperature-measuring devices must now be independently powered (replacing “independent of each other”). Removes a single-point-of-failure mode.

EmS Guide (MSC.1/Circ.1588/Rev.4) — new entries for UN 2348, 2862, 3561, 3562, 3563 and 3564.

Issues not adopted in 43-26 — referred forward

Diesel fuel in multimodal transport (CCC 11/6/2, Netherlands) — no consensus; E&T 43 invites Member States to take the proposal to the UNTDG Sub-Committee.

Control temperature of flammable liquids < 23 °C (CCC 11/6/4, Republic of Korea) — new submission invited to CCC 12 with examples of commercial drivers and safety benefits.

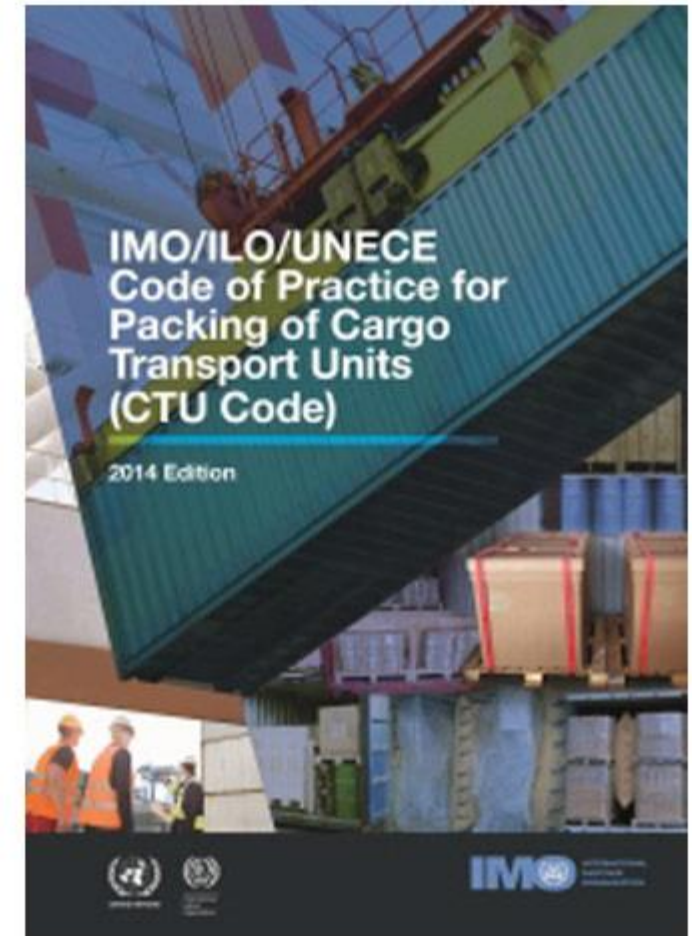
State-of-charge for lithium-ion vehicles — no formal proposal; more maritime-specific evidence needed. Future proposals invited.

SOLAS regulation VII/3 — initial review: MSC 111 invited to note; Member States invited to submit proposals to CCC 12.

Capacity-building (annex 7) — no new legislation, equipment, training or infrastructure required.

CTU Code Revision — Structure and Governance

- ❑ Revised CTU Code prepared by the IMO/ILO/UNECE Group of Experts following WP.24 discussions.
- ❑ New four-tier structure introduced to facilitate more frequent technical amendments.
- ❑ Tier 1 retains key principles and policy guidance; Tiers 2–4 contain technical clauses and supplements.
- ❑ Proposed restructuring supports intermodal transport growth, automation and operational safety.
- ❑ Technical amendments expected to be managed more efficiently through future review mechanisms.



CTU Code — Future Actions

- A Technical Body is proposed under UNECE WP.24 to review Tiers 2–4 of the revised CTU Code.
- The body would review technical clauses, prepare amendments and publish updates.
- Annual meetings and special sessions may be convened for urgent technical matters.
- The Technical Body will also consider development of a CTU Code digital application.
- MSC 111 invited CCC to conduct detailed review, aiming for approval at MSC 112 in December 2026.

Thank you!



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