INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
105th session
Agenda item 20

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REPORT OF THE MARITIME SAFETY COMMITTEE ON ITS 105TH SESSION

Attached are annexes 7 to 8 and 26 to 43 to the report of the Maritime Safety Committee on its 105th session (MSC 105/20).

Annexes 1 to 6 and 9 to 25 are set out in document MSC 105/20/Add.1.

LIST OF ANNEXES

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ANNEX 7

RESOLUTION MSC.500(105)
(adopted on 28 April 2022)

AMENDMENTS TO THE INTERNATIONAL MARITIME SOLID BULK CARGOES (IMSBC) CODE

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution MSC.268(85) by which it adopted the International Maritime Solid Bulk Cargoes Code (hereinafter referred to as "the IMSBC Code"), which has become mandatory under chapter VI of the International Convention for the Safety of Life at Sea, 1974, as amended ("the Convention"),

RECALLING FURTHER article VIII(b) and regulation VII/1.1 of the Convention concerning the procedure for amending the IMSBC Code,

HAVING CONSIDERED, at its 105th session, amendments to the IMSBC Code, proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the IMSBC Code, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 June 2023, unless prior to that date more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have notified their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 December 2023 upon their acceptance in accordance with paragraph 2 above;

4 AGREES that Contracting Governments to the Convention may apply the aforementioned amendments in whole or in part on a voluntary basis as from 1 January 2023;

5 REQUESTS the Secretary-General, for the purpose of article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

6 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL MARITIME SOLID BULK CARGOES (IMSBC) CODE

Table of contents

For "Section 7", replace the text to read "Cargoes which may liquefy or undergo dynamic separation".

For "Section 8", replace the text to read "Test procedures for group A cargoes".

Section 1
General provisions

1.7 Definitions

In the definition for "*GHS*", replace the word "seventh" with the word "ninth" and replace "ST/SG/AC.10/30/Rev.7" with "ST/SG/AC.10/30/Rev.9".

In the definition for "*Group A*", replace the text to read "*Group A* consists of cargoes which possess a hazard due to moisture that may result in liquefaction or dynamic separation if shipped at a moisture content in excess of their transportable moisture limit."

In the definition for "*Group C*", replace the text to read "*Group C* consists of cargoes which are classified as neither group A nor group B."

In the definition for "*Manual of Tests and Criteria*", replace the definition to read "*Manual of Tests and Criteria* means the seventh revised edition of the United Nations publication entitled Manual of Tests and Criteria (ST/SG/AC.10/11/Rev.7 and Amend.1)."

In the definition for "*Transportable moisture limit (TML)*", replace the text to read "*Transportable moisture limit (TML)* of a group A cargo means the maximum moisture content of the cargo which is considered safe for carriage in ships not complying with the special provisions of 7.3.2. It is determined by the test procedures, approved by a competent authority, such as those specified in paragraph 1 of appendix 2."

Add the following new definitions in alphabetical order:

"*Cargoes which may undergo dynamic separation* means cargoes which contain a certain proportion of fine particles and a certain amount of moisture, and may undergo dynamic separation if shipped at a moisture content in excess of their transportable moisture limit."

"*Dynamic separation* means the phenomenon of forming a liquid slurry (water and fine solids) above the solid material, resulting in a free surface effect which may significantly affect the ship's stability."

Section 4
Assessment of acceptability of consignments for safe shipment

4.1 Identification and classification

In 4.1.4, replace the words "Manual of Tests and Criteria" with the words "*Manual of Tests and Criteria*".

4.2 Provision of information

In 4.2.2.9, replace the existing text to read as follows:

> "additional information in the form of a certificate on the moisture content of the cargo and its transportable moisture limit in the case of a group A cargo;".

In 4.2.3, in the table for "Form for cargo information for solid bulk cargoes", in the "Group of the cargo" box, delete the asterisks and the corresponding footnote text "For cargoes which may liquefy (group A and group A and B cargoes)". Under "Transportable moisture limit", add the words "For group A and B and group A cargoes". Under "Moisture content at shipment", add the words "For group A and B and group A cargoes".

4.3 Certificates of test

In 4.3.2, replace the first sentence to read as follows:

> "When a group A cargo is carried, the shipper shall provide the ship's master or his representative with a signed certificate of the TML, and a signed certificate or declaration of the moisture content, each issued by an entity recognized by the competent authority of the port of loading."

In 4.3.3, replace the first sentence to read as follows:

> "When a group A cargo is carried, procedures for sampling, testing and controlling moisture content to ensure the moisture content is less than the TML when it is on board the ship shall be established by the shipper, taking account of the provisions of this Code."

In 4.3.5, replace the first sentence to read as follows:

> "When a group A cargo is to be loaded into more than one cargo space of a ship, the certificate or the declaration of moisture content shall certify the moisture content of each type of finely grained material loaded into each cargo space."

4.4 Sampling procedures

In 4.4.3, replace the existing text with the following:

> "For a group A cargo, the shipper shall facilitate access to stockpiles for the purpose of inspection, sampling and subsequent testing by the ship's nominated representative."

4.8 Documentation required on board the ship carrying dangerous goods

In 4.8.3, after the words "SOLAS regulation II-2/19.4", add the words "(or II-2/54.3)*", and add a corresponding footnote, as follows:

"* Refer to 1.1.1.2 of the IMDG Code."

Section 7
Cargoes which may liquefy

In the heading for "Section 7", replace the words "Cargoes which may liquefy" with the words "Cargoes which may liquefy or undergo dynamic separation".

7.1 Introduction

In 7.1.1, replace the existing text with the following:

"The purpose of this section is to bring to the attention of masters and others with responsibilities for the loading and carriage of bulk cargoes, the risks associated with liquefaction or dynamic separation and the precautions to minimize the risk. Such cargoes may appear to be in a relatively dry granular state when loaded, and yet may contain sufficient moisture to become fluid or unstable under the stimulus of compaction and the vibration which occurs during a voyage."

In 7.1.3, replace the existing text with the following:

"Some group A cargoes may also heat spontaneously."

7.3 Provisions for cargoes that may liquefy

In the heading for 7.3, replace the words "Provisions for cargoes that may liquefy" with the words "Provisions for cargoes which may liquefy or undergo dynamic separation".

7.3.1 General

In 7.3.1.1, replace the existing text with the following:

"Group A cargoes shall only be accepted for loading when the actual moisture content of the cargo is less than its TML. Notwithstanding this provision, cargoes having moisture content in excess of the TML may be carried on a specially constructed or fitted cargo ship for confining cargo shift specified in 7.3.2."

In 7.3.1.2, replace the existing text with the following:

"Notwithstanding the provisions in 1.4 of this Code, the requirements in 4.2.2.9, 4.2.2.10, 4.3.2 to 4.3.5, 4.5, 4.6 and 8 of this Code need not apply to a group A cargo provided that the cargo is carried on a specially constructed or fitted cargo ship for confining cargo shift specified in 7.3.2 or on a specially constructed ship for dry powdery cargoes specified in 7.3.3."

Section 8
Test procedures for cargoes which may liquefy

In the heading for "Section 8", replace the words "Test procedures for cargoes which may liquefy" with the words "Test procedures for group A cargoes".

Section 9
Materials possessing chemical hazards

9.2 Hazard classification

9.2.3 Materials hazardous only in bulk (MHB)

9.2.3.2 Combustible solids: MHB (CB)

In 9.2.3.2.2, replace the word "33.2.1.4.3.1" with the word "33.2.4.3.1".

9.2.3.3 Self-heating solids: MHB (SH)

In 9.2.3.3.2, replace the word "33.3.1.6" with the word "33.4.6".

In 9.2.3.3.3, replace the word "33.4.1.4.3.5" with the word "33.5.4.3.5".

9.2.3.4 Solids that evolve flammable gas when wet: MHB (WF)

In 9.2.3.4.2, replace the word "33.4.1" with the word "33.5".

9.2.3.5 Solids that evolve toxic gas when wet: MHB (WT)

In 9.2.3.5.2, replace the word "33.4.1" with the word "33.5".

9.2.3.7 Corrosive solids: MHB (CR)

In 9.2.3.7.3, replace the existing text with the following:

> "A material shall be classified as MHB when the corrosion rate on a steel surface is between 4 mm and 6.25 mm a year at a test temperature of 55°C. For the purposes of testing steel, type S235JR+CR (1.0037 resp. St 37-2), S275J2G3+CR (1.0144 resp. St 44-3), ISO 3574:1999, Unified Numbering Systems (UNS) G10200 or SAE 1020 shall be used. An acceptable test is prescribed in the United Nations Manual of Tests and Criteria, part III, section 37. A representative sample of the cargo shall be tested at typical as-shipped cargo conditions, including moisture content by mass, bulk density, particle size distribution and atmospheric conditions. The assessment of localized corrosion occurring upon the steel surface shall be performed using national or international standards. The test shall be conducted taking into account the guidance developed by the Organization.*",

and add a corresponding footnote, as follows:

"* Refer to the *Guidance for conducting the refined MHB (CR) test* (MSC.1/Circ.1600/Rev.1)."

APPENDIX 1

INDIVIDUAL SCHEDULES OF SOLID BULK CARGOES

Amendments to existing individual schedules

Amend the following individual schedules as indicated below:

ALFALFA

In the individual schedule for "ALFALFA", in the section for "Characteristics", in the table, replace the words "Fine Powder" with the words "Fine powder".

ALUMINIUM NITRATE UN 1438

In the individual schedule for "ALUMINIUM NITRATE UN 1438", in the section for "Emergency procedures", in the table, replace the word "overalls" with the word "coveralls".

AMMONIUM NITRATE UN 1942

In the individual schedule for "AMMONIUM NITRATE UN 1942", in the section for "Description", in the "Note", replace the word "*UN*" by the word "UN". In the section for "Loading", delete the word "intrinsically".

AMMONIUM NITRATE BASED FERTILIZER UN 2067

In the individual schedule for "AMMONIUM NITRATE BASED FERTILIZER UN 2067", in the section for "Loading", delete the word "intrinsically".

AMMONIUM NITRATE BASED FERTILIZER UN 2071

In the individual schedule for "AMMONIUM NITRATE BASED FERTILIZER UN 2071", under the BCSN, replace the word "*UN*" by the word "UN". In the section for "Loading", delete the word "intrinsically".

AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)

Delete the individual schedule for "AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)".

BARIUM NITRATE UN 1446

In the individual schedule for "BARIUM NITRATE UN 1446", in the section for "Emergency procedures", in the table, replace the word "overalls" with the word "coveralls".

BROWN COAL BRIQUETTES

In the individual schedule for "BROWN COAL BRIQUETTES", in the appendix, under the section for "Stowage and segregation", in paragraph 5, with regard to the footnote text, replace "MSC.1/Circ.1351/Rev.1" with "MSC.1/Circ.1351".

CASTOR BEANS or CASTOR MEAL or CASTOR POMACE or CASTOR FLAKE UN 2969

In the individual schedule for "CASTOR BEANS or CASTOR MEAL or CASTOR POMACE or CASTOR FLAKE UN 2969", move the sentence "Castor meal, castor pomace and castor flakes shall not be carried in bulk." from the section for "Precautions" to underneath the BCSN.

COAL

In the individual schedule for "COAL", in the appendix, under the section for "Segregation and stowage requirements", in paragraph 4, with regard to the footnote text, replace "MSC.1/Circ.1351/Rev.1" with "MSC.1/Circ.1351".

COAL TAR PITCH

In the individual schedule for "COAL TAR PITCH", under the section for "Description", replace the words "Coal Tar" with the words "coal tar" and replace the word "Cokes" with the word "cokes".

CRUSHED CARBON ANODES

In the individual schedule for "CRUSHED CARBON ANODES", under the section for "Description", replace the words "Crushed Carbon Anodes" with the words "Crushed carbon anodes".

FISH MEAL (FISH SCRAP), STABILIZED UN 2216 Anti-oxidant treated

In the individual schedule for "FISH MEAL (FISH SCRAP), STABILIZED UN 2216 Anti-oxidant treated", under the BCSN, replace the word "fishmeal" with the words "fish meal".

FLUE DUST, CONTAINING LEAD AND ZINC

In the individual schedule for "FLUE DUST, CONTAINING LEAD AND ZINC", in the table for "Characteristics", in "Class", insert a footnote and the corresponding footnote text "Pursuant to 4.1.1.3 of this Code for UN 3077, class 9 cargoes, the "Class" box is left blank."

IRON ORE FINES

In the individual schedule for "IRON ORE FINES", in the table for "Characteristics", regarding bulk density, replace the words "1,500 to 3,000" with the words "1,500 to 3,500".

MATTE CONTAINING COPPER AND LEAD

In the individual schedule for "MATTE CONTAINING COPPER AND LEAD", in the table for "Characteristics", in "Class", insert a footnote and the corresponding footnote text "Pursuant to 4.1.1.3 of this Code for UN 3077, class 9 cargoes, the "Class" box is left blank."

METAL SULPHIDE CONCENTRATES, CORROSIVE UN 1759

In the individual schedule for "METAL SULPHIDE CONCENTRATES, CORROSIVE UN 1759", under the BCSN, replace the words "Packing Group" with the words "packing group".

METAL SULPHIDE CONCENTRATES, SELF-HEATING UN 3190

In the individual schedule for "METAL SULPHIDE CONCENTRATES, SELF-HEATING UN 3190", under the BCSN, replace the words "Packing Group" with the words "packing group".

Mineral concentrates

In the individual schedule for "Mineral concentrates", replace the words "NEFELENE SYENITE (mineral)" with the words "NEPHELINE SYENITE (mineral)".

PITCH PRILL

In the individual schedule for "PITCH PRILL", in the section for "Emergency procedures", in the table, replace the word "overalls" with the word "coveralls".

SUPERPHOSPHATE (triple, granular)

Delete the individual schedule for "SUPERPHOSPHATE (triple, granular)".

SYNTHETIC CALCIUM FLUORIDE

In the individual schedule for "SYNTHETIC CALCIUM FLUORIDE", under the section for "Description", replace "70%-80%" with the words "70% to 80%", replace "5%-10%" with the words "5% to 10%" and replace "10%-20%" with the words "10% to 20%".

New individual schedules

Insert the following new individual schedules in alphabetical order:

"**AMMONIUM NITRATE BASED FERTILIZER**

This schedule shall only apply to ammonium nitrate based fertilizers which do not meet any of the criteria on dangerous goods or materials hazardous only in bulk specified in 9.2.2 or 9.2.3 of this Code, respectively.

Ammonium nitrate based fertilizers transported in conditions mentioned in this schedule are straight nitrogen fertilizers or compound fertilizers within the following composition limits:

Straight nitrogen fertilizers containing less than 2% chloride, and

.1 not more than 70% ammonium nitrate with other inorganic materials; or

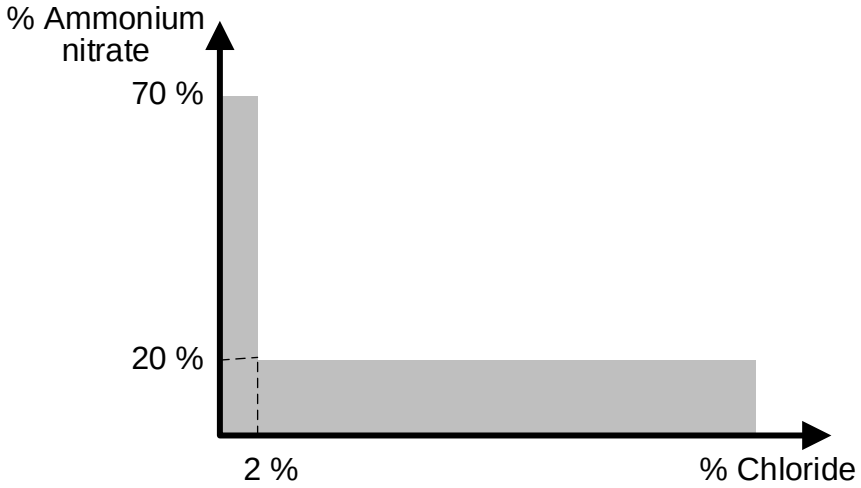
.2 not more than 80% ammonium nitrate mixed with calcium carbonate and/or dolomite and/or mineral calcium sulphate and not more than 0.4% total combustible organic material calculated as carbon; or

.3 mixtures of ammonium nitrate and ammonium sulphate with not more than 45% ammonium nitrate and not more than 0.4% total combustible organic material calculated as carbon.

Compound NPK/NK/NP fertilizers

.1 mixtures of nitrogen with phosphate and/or potash containing not more than 70% ammonium nitrate and not more than 0.4% total combustible organic material calculated as carbon or not more than 45% ammonium nitrate and unrestricted combustible material; and

.2 either less than 20% of ammonium nitrate content or less than 2% of chloride (as indicated in the grey area of the figure for NPK/NP/NK fertilizers below).



The shipper shall declare the ammonium nitrate content and the chloride content in accordance with 4.2 of this Code.

Notwithstanding the above, fertilizers within these composition limits are not subject to the provisions of this schedule, if they are assigned class 9 due to the hazard of self-sustaining decomposition based on the results of the trough test (referred to in the UN *Manual of Tests and Criteria*, part III, section 39).

Description
Crystals, granules or prills. Non-cohesive when dry. Wholly or partly soluble in water. Common products, listed (non-exhaustive) under this schedule are:

.1 calcium ammonium nitrate;

.2 ammonium sulphate nitrate;

.3 ammonium nitrate with other sulphates (e.g. calcium or magnesium sulphate); and

.4 compound NPK/NP/NK fertilizer.

Characteristics

Physical properties			
Size	**Angle of repose**	**Bulk density (kg/m^3)**	**Stowage factor (m^3/t)**
1 to 5 mm	27° to 42°	1,000 to 1,200	0.83 to 1.00
Hazard classification			

Class	Subsidiary hazard(s)	MHB	Group
Not applicable	Not applicable	Not applicable	C

Hazard
When this cargo is heated strongly, it will decompose and give off toxic gases with the risk of toxic fumes in the cargo hold, adjacent spaces and on deck. If decomposition is initiated in a localized area, it is highly unlikely to spread throughout the mass of the fertilizer.*

Fertilizer dust might be irritating to skin and mucous membranes. It is a hygroscopic cargo and will cake if wet.

Stowage and segregation
"Separated from" sources of heat.

Hold cleanliness
Clean and dry as relevant to the hazards of the cargo.

Weather precautions
This cargo shall be kept as dry as practicable. This cargo shall not be handled during precipitation. During handling of this cargo, all non-working hatches of the cargo spaces into which this cargo is loaded, or to be loaded, shall be closed.

Loading
Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code.

Precautions
"NO SMOKING" signs shall be displayed on deck whenever this cargo is on board. Smoking shall not be allowed on deck and in the cargo spaces.

No welding, burning, cutting or other operations involving the use of fire, open flame, spark or arc-producing equipment shall be carried out on equipment or structures in direct contact with the fertilizer.

In order to avoid heating the cargo, all electrical equipment or other equipment capable of developing heat, other than that of approved safe type, in the cargo spaces to be used for this cargo shall be electrically disconnected from the power source, by appropriate means other than a fuse, at a point external to the space. This situation shall be maintained while the cargo is on board.

Appropriate precautions shall be taken to protect machinery and accommodation spaces from the dust of the cargo.

Bilge wells of the cargo spaces shall be protected from ingress of the cargo. Due consideration shall be given to protect equipment from the dust of the cargo. Persons who may be exposed to the dust of the cargo shall wear goggles or other equivalent dust eye-protection and dust filter masks. Those persons shall wear protective clothing, as necessary.

* For the hazards associated with the spread of decomposition, see the individual schedule for AMMONIUM NITRATE BASED FERTILIZER MHB.

Ventilation
The cargo spaces carrying this cargo shall not be ventilated during voyage, except in an emergency.

Carriage
No special requirements.

Discharge
This cargo is hygroscopic and may cake in overhangs, impairing safety during discharge.

If this cargo has hardened, it shall be trimmed to avoid the formation of overhangs, as necessary.

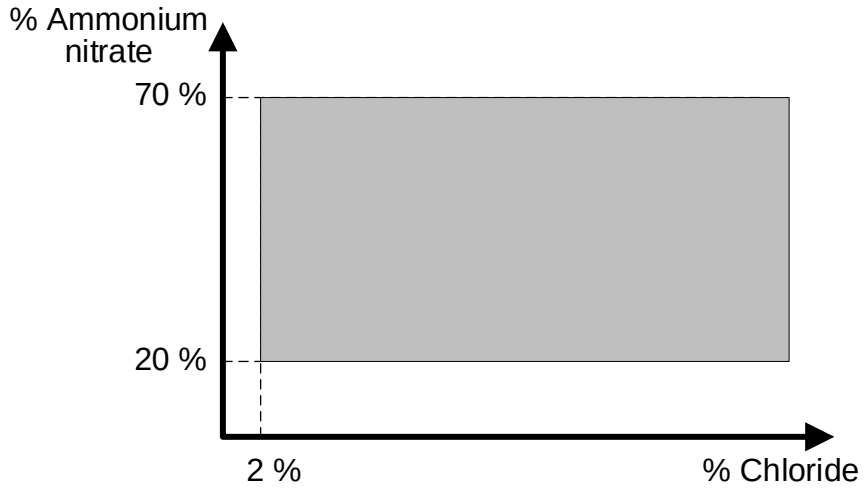
Clean-up
After discharge of this cargo, the bilge wells and the scuppers of the cargo spaces shall be checked and any blockage in the bilge wells and the scuppers shall be removed."

"**AMMONIUM NITRATE BASED FERTILIZER MHB**

Ammonium nitrate based fertilizers transported under conditions mentioned in this schedule are uniform mixtures of nitrogen with or without potash and/or phosphate within the following composition limits:

.1 not more than 70% ammonium nitrate and not more than 0.4% total combustible organic material calculated as carbon or not more than 45% ammonium nitrate and unrestricted combustible material; and

.2 both the ammonium nitrate content is equal to or greater than 20% and the chloride content is equal to or greater than 2% (as indicated in the grey area of the figure below).



The shipper shall declare the ammonium nitrate content and the chloride content in accordance with 4.2 of this Code.

Notwithstanding the above, fertilizers within these composition limits are not subject to the provisions of this schedule, if they are assigned class 9 due to the hazard of self-sustaining decomposition based on the results of the trough test (referred to in the UN *Manual of Tests and Criteria*, part III, section 39).

Description
Crystals, granules or prills. Non-cohesive when dry. Wholly or partly soluble in water. Common products listed under this schedule are compound NPK/NK fertilizers.

Characteristics

Physical properties			
Size	**Angle of repose**	**Bulk density (kg/m^3)**	**Stowage factor (m^3/t)**
1 to 5 mm	27° to 42°	1,000 to 1,200	0.83 to 1.00
Hazard classification			
Class	**Subsidiary hazard(s)**	**MHB**	**Group**
Not applicable	Not applicable	OH	B

Hazard
Although this cargo passes the trough test (referred to in the UN *Manual of Tests and Criteria*, part III, section 39), and hence does not fall in class 9, when carried in bulk in large quantities, it may still be subject to decomposition if strongly heated from external sources. Once initiated, decomposition might gradually spread through the remainder of the cargo, producing large volumes of toxic gases.

This cargo is not subject to an explosion hazard.

Fertilizer dust might be irritating to skin and mucous membranes. It is hygroscopic cargo and will cake if wet.

Stowage and segregation
"Separated from" sources of heat (see also Loading). Not to be stowed immediately adjacent to any tank, double bottom or pipe containing heated fuel oil, unless there are permanent means and procedures to monitor and control the temperature so that it does not exceed 50°C. Fertilizers of this type shall be stowed out of direct contact with a metal engine-room boundary. This may be done, for example, by using flame-retardant bags containing inert materials or by any equivalent arrangement approved by the competent authority of the country of origin. This requirement does not apply if the bulkhead is class A-60 or to short international voyages.

The hatches of the cargo spaces, including those of 'tween decks, shall be kept free at all times. In case of an emergency, whenever this material is on board, opening the hatches must be enabled (see 9.3.1.13 of this Code).

Hold cleanliness
Clean and dry as relevant to the hazards of the cargo.

Weather precautions
This cargo shall be kept as dry as practicable. This cargo shall not be handled during precipitation. During handling of this cargo, all non-working hatches of the cargo spaces into which this cargo is loaded, or is to be loaded, shall be closed.

Loading
Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code.

Prior to loading, the following provisions shall be complied with
In order to avoid heating up of the cargo, all electrical equipment or other equipment capable of developing heat, other than that of approved safe type, in the cargo spaces to be used for

this cargo, shall be electrically disconnected from the power source, by appropriate means other than a fuse, at a point external to the space. This situation shall be maintained while the cargo is on board.

Due consideration shall be given to the necessity to open hatches in case of decomposition to provide maximum ventilation, release pressure and heat, and slow down the reaction.

During loading, the following provisions shall be complied with
Organic contamination aggravates decomposition behaviour in the presence of sources of heat, and therefore bunkering of fuel oil shall not be allowed during loading.

Pumping of fuel oil in spaces adjacent to the cargo spaces for this cargo, other than the engine-room, shall not be allowed.

Precautions
"NO SMOKING" signs shall be displayed on deck whenever this cargo is on board. Smoking shall not be allowed on deck and in the cargo spaces.

No welding, burning, cutting or other operations involving the use of fire, open flame, spark or arc-producing equipment shall be carried out on equipment or structures in direct contact with the fertilizer.

The master and officers are to note that the ship's fixed gas fire-fighting installation will be ineffective on decompositions involving this cargo and must not be used. If decomposition is identified, water must be applied without delay. Injection to the seat of decomposition is the first control measure because it uses less water and can be more effective in early decomposition stages. Total flooding is the final control measure but can introduce stability and stress issues. The consequential risk to the stability of the ship through fluidization of the cargo must be taken into account in both cases. Application of water to the surface of the cargo is much less effective and can give a false sense of safety.

Appropriate precautions shall be taken to protect machinery and accommodation spaces from the dust of the cargo.

Bilge wells of the cargo spaces shall be protected from ingress of the cargo. Due consideration shall be given to protect equipment from the dust of the cargo. Persons who may be exposed to the dust of the cargo shall wear goggles or other equivalent dust eye-protection and dust filter masks. Those persons shall wear protective clothing, as necessary.

Ventilation
The cargo spaces carrying this cargo shall not be ventilated during the voyage, except in an emergency.

Carriage
There shall be a daily monitoring, recording and assessment of the trends of the cargo temperature and oxygen concentration in the cargo space(s) throughout the voyage.

Increase of temperature and decrease of oxygen concentration give an early indication of a decomposition.

In addition, should decomposition occur, the residue left after decomposition may have only half the mass of the original cargo. Due consideration shall be given to the effect of the loss of mass on the stability of the ship.

Discharge
Organic contamination aggravates decomposition behaviour in the presence of sources of heat, and therefore bunkering of fuel oil shall not be allowed during discharge.

Pumping of fuel oil in spaces adjacent to the cargo spaces for this cargo, other than the engine-room, shall not be allowed during discharge.

This cargo is hygroscopic and may cake in overhangs, impairing safety during discharge.

If this cargo has hardened, it shall be trimmed to avoid the formation of overhangs, as necessary.

Clean-up
After discharge of this cargo, the bilge wells and the scuppers of the cargo spaces shall be checked, and any blockage in the bilge wells and the scuppers shall be removed.

Emergency procedures

Special emergency equipment to be carried Protective clothing (boots, gloves, coveralls and headgear) Self-contained breathing apparatus
Emergency procedures Wear protective clothing and self-contained breathing apparatus **Emergency action in the event of fire or decomposition** ***Decomposition in a cargo space containing this material***: The master and officers are to note that the ship's fixed gas fire-fighting installation will be ineffective on decompositions involving this cargo and must not be used. If decomposition is identified, water must be applied without delay. Injection to the seat of decomposition is the first control measure (e.g. using Victor lance) because it uses less water and can be more effective in early decomposition stages. Total flooding is the final control measure but can introduce stability and stress issues. The consequential risk to the stability of the ship through fluidization of the cargo must be taken into account in both cases. Application of water to the surface of the cargo is much less effective and can give a false sense of safety. ***Fire in an adjacent cargo space***: Heat transferred from fire in an adjacent space can cause the material to decompose with consequent evolution of toxic fumes. Open hatches to provide maximum ventilation. Dividing bulkheads should be cooled. **Medical first aid** Refer to the *Medical First Aid Guide* (MFAG), as amended

"

"**CLAM SHELL**

This schedule shall only apply to whole clam shells.

Description
This cargo is a by-product generated in the process of clam farming. Dark grey to beige, granular in form, not soluble, solid and natural material.

Characteristics

Physical properties			
Size	**Angle of repose**	**Bulk density (kg/m^3)**	**Stowage factor (m^3/t)**
5 mm to 30 mm	34°	1,058	0.945
Hazard classification			
Class	**Subsidiary hazard(s)**	**MHB**	**Group**
Not applicable	Not applicable	Not applicable	C

Hazard
No special hazards.
This cargo is non-combustible or has a low fire risk.

Stowage and segregation
No special requirements.

Hold cleanliness
No special requirements.

Weather precautions
No special requirements.

Loading
Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code.

Precautions
No special requirements.

Ventilation
No special requirements.

Carriage
No special requirements.

Discharge
No special requirements.

Clean-up
After discharge of this cargo, the cargo spaces and the bilge wells shall be swept clean and then thoroughly washed out."

"**LEACH RESIDUE CONTAINING LEAD**

Description
Intermediate by-product formed as a result of the hydrometallurgical production of zinc and/or zinc compounds. Insoluble grey to brown granular substance obtained during dissolution of zinc ores or concentrate in sulphuric acid to produce zinc sulphate solutions after physical separation such as flotation and filtration.

Characteristics

Physical properties			
Size	**Angle of repose**	**Bulk density (kg/m^3)**	**Stowage factor (m^3/t)**
Fines up to 100 µm	45° to 52°	800 to 1,600	0.63 to 1.25
Hazard classification			
Class*	**Subsidiary hazards**	**MHB**	**Group**
	Not applicable	TX and CR	A and B

Hazard

This cargo may liquefy if shipped at a moisture content in excess of its transportable moisture limit (TML). See sections 7 and 8 of this Code.
Harmful if swallowed or inhaled.
This cargo is corrosive to eyes and may cause long-term health effects.
On heating (>1000°C), this cargo may release toxic and corrosive gases or vapours.
This cargo is non-combustible or has a low fire risk.

Stowage and segregation

"Separated from" foodstuffs and all class 8 acids.

Hold cleanliness

Clean and dry as relevant to the hazards of the cargo.

Weather precautions

When this cargo is carried in a ship other than a ship complying with the requirements in 7.3.2 of this Code, the following provisions shall be complied with:

.1 the moisture content of the cargo shall be kept less than its TML during loading operations and the voyage;

.2 unless expressly provided otherwise in this individual schedule, the cargo shall not be handled during precipitation;

.3 unless expressly provided otherwise in this individual schedule, during handling of the cargo, all non-working hatches of the cargo spaces into which the cargo is loaded, or to be loaded, shall be closed;

.4 the cargo may be handled during precipitation under the conditions stated in the procedures required in 4.3.3 of this Code; and

.5 the cargo in a cargo space may be discharged during precipitation provided that the total amount of the cargo in the cargo space is to be discharged in the port.

Loading

Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code.

* Pursuant to 4.1.1.3 of this Code for UN 3077, class 9 cargoes, the "Class" box is left blank.

Precautions
Bilge wells shall be clean, dry and covered as appropriate, to prevent ingress of the cargo. Bilge covers shall not significantly degrade the capacity or operation of the bilge system. Bilges shall be sounded and pumped out, as necessary, throughout the voyage. Appropriate precautions shall be taken to protect machinery and accommodation spaces from the dust of the cargo. Due consideration shall be given to protect equipment from dust of the cargo.

Persons who may be exposed to the dust of the cargo shall wear goggles or other equivalent dust eye-protection and dust filter masks. Those persons shall wear protective clothing, as necessary.
During loading, carriage and discharging, welding or other hot work shall not be carried out in the vicinity of the cargo spaces containing this cargo.

Ventilation
No special requirements.

Carriage
Unless this material is carried in a ship complying with the requirements in 7.3.2 of this Code, the appearance of the surface of the cargo shall be checked regularly during the voyage. If free water above the cargo or fluid state of the cargo is observed during the voyage, the master shall take appropriate actions to prevent cargo shifting and potential capsize of the ship, and give consideration to seeking emergency entry into a place of refuge.

Discharge
Mechanisms are to be put in place to catch any material spilling from the cargo handling equipment into the water. Spillage onto the ship shall be cleaned up regularly.

Clean-up
After discharge of this cargo, the cargo spaces and the bilge wells shall be swept clean and then thoroughly washed out. All cargo residues are to be removed from the ship before sailing.

Emergency procedures

Special emergency equipment to be carried Protective clothing (safety goggles, gloves, dustproof clothing). Self-contained breathing apparatus.
Emergency procedures Wear protective clothing and self-contained breathing apparatus. **Emergency action in the event of fire** Batten down and use ship's fixed fire-fighting installation, if fitted. Exclusion of air may be sufficient to control the fire. **Do not use water.** **Medical first aid** Refer to the *Medical First Aid Guide* (MFAG), as amended.

"

"**SUPERPHOSPHATE (triple, granular)**

Description
Particles made from phosphate rock and phosphoric acid. Main component is calcium superphosphate with content of about 70%. Always used as superphosphate fertilizer.

Characteristics

Physical properties			
Size	**Angle of repose**	**Bulk density (kg/m^3)**	**Stowage factor (m^3/t)**
Not less than 90% particles: 2 to 4.75 mm	35° to 38°	900 to 1,150	0.87 to 1.11
Hazard classification			
Class	**Subsidiary hazard(s)**	**MHB**	**Group**
Not applicable	Not applicable	CR	B

Hazard
Corrosive to eyes from dust during handling, placement and transportation.
This cargo is hygroscopic and will cake if wet.
This cargo is non-combustible or has a low fire risk.

Stowage and segregation
Separated from alkali and urea.

Hold cleanliness
Clean and dry as relevant to the hazards of the cargo.

Weather precautions
This cargo shall be kept as dry as practicable. This cargo shall not be handled during precipitation. During handling of this cargo, all non-working hatches of the cargo spaces into which this cargo is loaded, or to be loaded, shall be closed.

Loading
Trim in accordance with the relevant provisions required under sections 4 and 5 of this Code.

Precautions
Appropriate precautions shall be taken to protect machinery and accommodation spaces from the dust of the cargo.

Bilge wells of the cargo spaces shall be protected from ingress of the cargo.
Due consideration shall be given to protect equipment from the dust of the cargo.
Persons who may be exposed to the dust of the cargo shall wear protective clothing, gloves, goggles or other equivalent dust eye-protection and dust filter masks, as necessary.

Ventilation
The cargo spaces carrying this cargo shall not be ventilated during the voyage.

Carriage
Condensation in the cargo spaces carrying this cargo, sweating of this cargo and entering of water from hatch covers to the cargo spaces shall be checked regularly during the voyage. Due attention shall be given to the sealing of hatches of the cargo spaces.

Discharge
Granular triple superphosphate is hygroscopic and may cake in overhangs, impairing safety during discharge. If this cargo has hardened, it shall be trimmed to avoid the formation of overhangs, as necessary.

Clean-up
After discharge of this cargo, particular attention shall be given to bilge wells of the cargo spaces.

Emergency procedures

Special emergency equipment to be carried Protective clothing (gloves, boots, coveralls and headgear). Self-contained breathing apparatus.
Emergency procedures Wear protective clothing and self-contained breathing apparatus. **Emergency action in the event of fire** Batten down and use ship's fixed fire-fighting installation, if fitted. Exclusion of air may be sufficient to control the fire. **Medical first aid** Refer to the *Medical First Aid Guide* (MFAG), as amended.

"

APPENDIX 2

LABORATORY TEST PROCEDURES, ASSOCIATED APPARATUS AND STANDARDS

1 Test procedures for materials which may liquefy and associated apparatus

In the heading, replace the words "Test procedures for materials which may liquefy and associated apparatus" with the words "Test procedures for materials which may liquefy or undergo dynamic separation and associated apparatus".

1.2 Penetration test procedure

1.2.2 *Apparatus (see figure 1.2.2)*

In figure 1.2.2.2, replace the words "*Vibration table*" with the words "*Vibrating table*".

1.6 Modified Proctor/Fagerberg test procedure for bauxite

1.6.1 Scope

In 1.6.1.4, replace the last sentence to read "Therefore, the cargo is not classified as group A".

4 Trough test for determination of the self-sustaining exothermic decomposition of fertilizers containing nitrates

In the footnote text for the heading, delete the words "*Recommendation on the Transport of Dangerous Goods,*".

APPENDIX 3

PROPERTIES OF SOLID BULK CARGOES

1 Non-cohesive cargoes

1.1 The following cargoes are non-cohesive when dry:

In the list, delete the entry for "AMMONIUM NITRATE BASED FERTILIZERS (TYPE A, TYPE B and NON HAZARDOUS)".

In the list, replace the entry for "SUPERPHOSPHATE" by "SUPERPHOSPHATE (triple, granular)".

In the list, add the following new entries in alphabetical order:

"AMMONIUM NITRATE BASED FERTILIZER"
"AMMONIUM NITRATE BASED FERTILIZER MHB"
"AMMONIUM NITRATE BASED FERTILIZER UN 2067"
"AMMONIUM NITRATE BASED FERTILIZER UN 2071"
"CLAM SHELL"
"LEACH RESIDUE CONTAINING LEAD"

2 Cargoes which may liquefy

In the heading, replace the words "Cargoes which may liquefy" with the words "Cargoes which may liquefy or undergo dynamic separation".

APPENDIX 4

INDEX

In the table:

Delete the entry for "AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)".
Delete the entry for "SUPERPHOSPHATE (triple, granular)" (group C).

In the entries for "CASTOR FLAKE UN 2969", "CASTOR MEAL UN 2969" and "CASTOR POMACE UN 2969", in the column for "References", add the text "(Carriage in bulk is prohibited)".

Replace the word "FISHMEAL" with the words "FISH MEAL" and replace the word "FISHSCRAP" with the words "FISH SCRAP".

With regard to the entries for "Blende (zinc sulphide)", "Zinc ore, burnt", "Zinc ore, calamine", "Zinc ore, concentrates", "Zinc ore, crude", "Zinc sulphide" and "Zinc sulphide (blende)", in column for "References", replace the words "*see* ZINC CONCENTRATE" with the words "*see* Mineral Concentrates schedule".

With regard to the entry for "Sand, ilmenite", in column for "Group", replace the word "C" with the word "A".

Insert the following new entries in alphabetical order:

"

Material	Group	References
AMMONIUM NITRATE BASED FERTILIZER	C	
AMMONIUM NITRATE BASED FERTILIZER MHB	B	
CLAM SHELL	C	
Granular triple superphosphate	B	*see* SUPERPHOSPHATE (triple, granular)
LEACH RESIDUE CONTAINING LEAD	A and B	
SUPERPHOSPHATE (triple, granular)	B	

"

APPENDIX 5

BULK CARGO SHIPPING NAMES IN THREE LANGUAGES (ENGLISH, SPANISH AND FRENCH)

In the table:

Delete the entry for "AMMONIUM NITRATE BASED FERTILIZER (non-hazardous)".

Replace the word "FISHMEAL" with the words "FISH MEAL" and replace the word "FISHSCRAP" with the words "FISH SCRAP".

Replace the words "DIOXYDE DE SILICONE DE SYNTHÈSE" with the words "DIOXYDE DE SILICE DE SYNTHÈSE".

Insert the following new entries in the corresponding alphabetical order:
"

ENGLISH	FRENCH	SPANISH
AMMONIUM NITRATE BASED FERTILIZER	ENGRAIS AU NITRATE D'AMMONIUM	ABONOS A BASE DE NITRATO AMÓNICO
AMMONIUM NITRATE BASED FERTILIZER MHB	ENGRAIS AU NITRATE D'AMMONIUM MDV	ABONOS A BASE DE NITRATO AMÓNICO PPG
CLAM SHELL	COQUILLES DE PALOURDES	CONCHA DE ALMEJA
LEACH RESIDUE CONTAINING LEAD	RÉSIDU DE LIXIVIATION CONTENANT DU PLOMB	RESIDUOS DE LIXIVIACIÓN QUE CONTIENEN PLOMO

"

***

ANNEX 8

RESOLUTION MSC.501(105)
(adopted on 28 April 2022)

AMENDMENTS TO THE INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING resolution MSC.122(75) by which it adopted the International Maritime Dangerous Goods Code (hereinafter referred to as "the IMDG Code"), which has become mandatory under chapter VII of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended (hereinafter referred to as "the Convention"),

NOTING ALSO article VIII(b) and regulation VII/1.1 of the Convention concerning the procedure for amending the IMDG Code,

HAVING CONSIDERED, at its 105th session, amendments to the IMDG Code, proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the IMDG Code, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2023 unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have notified their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2024 upon their acceptance in accordance with paragraph 2 above;

4 AGREES that Contracting Governments to the Convention may apply the aforementioned amendments in whole or in part on a voluntary basis from 1 January 2023;

5 REQUESTS the Secretary-General, for the purposes of article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

6 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE

Contents

Insert a new chapter 6.10 as follows:

"**Chapter 6.10 Provisions for the design, construction, inspection and testing of portable tanks with shells made of fibre-reinforced plastics (FRP) materials**

6.10.1 Application and general requirements

6.10.2 Provisions for the design, construction, inspection and testing of FRP portable tanks".

PART 1
GENERAL PROVISIONS, DEFINITIONS AND TRAINING

Chapter 1.2
Definitions, units of measurement and abbreviations

1.2.1 Definitions

In the definition for "Bundles of cylinders", replace the words "assemblies of cylinders" with the words "pressure receptacles comprising an assembly of cylinders or cylinder shells".

Add the following new note under the definition for "*Closure*":

"Note: For pressure receptacles, closures are, for example, valves, pressure relief devices, pressure gauges or level indicators."

Replace the definition for "*Cryogenic receptacles*" to read as follows:

"*Closed cryogenic receptacles* are thermally insulated pressure receptacles for refrigerated liquefied gases of a water capacity of not more than 1,000 L."

In the definition for "*Cylinders*", delete the word "transportable".

In the definition for "*GHS*", replace the word "eighth" by the word "ninth" and replace "ST/SG/AC.10/30/Rev.8" with "ST/SG/AC.10/30/Rev.9".

In the definition for "*Liquids*", in the footnote, replace "ECE/TRANS/275 (Sales No. E.18.VIII.1)" with "ECE/TRANS/300 (Sales No. E.21.VIII.1)".

In the definition for "*Manual of Tests and Criteria*", after "ST/SG/AC.10/11/Rev.7", insert the words "and Amend.1".

In the definition for "*Metal hydride storage system*", replace the word "receptacle" with the words "pressure receptacle shell".

In the definition for "*Pressure drums*", delete the word "transportable".

In the definition for "*Pressure receptacles*", after the words "*Pressure receptacles*", add the words "are transportable receptacles intended for holding substances under pressure including its closure(s) and other service equipment and it".

In the definition for "*Recycled plastics material*", at the end of the note, add the following new sentence:

> "These guidelines have been developed based on the experience of the manufacturing of drums and jerricans from recycled plastics material and as such may need to be adapted for other types of packagings, IBCs and large packagings made of recycled plastics material."

In the definition for "*Tube*", delete the word "transportable".

Replace the definition for "*Working pressure*" to read as follows:

> "*Working pressure*:
>
> .1 for a compressed gas, means the settled pressure at a reference temperature of 15°C in a full pressure receptacle;
>
> .2 for UN 1001 acetylene, dissolved, means the calculated settled pressure at a uniform reference temperature of 15°C in an acetylene cylinder containing the specified solvent content and the maximum acetylene content; and
>
> .3 for UN 3374 acetylene, solvent free, means the working pressure which was calculated for the equivalent cylinder for UN 1001 acetylene, dissolved."

Insert the following new definitions, in alphabetical order:

"*IAEA Regulations for the Safe Transport of Radioactive Material* means one of the editions of those Regulations, as follows:

.1 for the 1985, 1985 (as amended 1990) editions: IAEA Safety Series No. 6;

.2 for the 1996 edition: IAEA Safety Series No. ST-1;

.3 for the 1996 (revised) edition: IAEA Safety Series No. TS-R-1 (ST-1, Revised);

.4 for the 1996 (as amended 2003), 2005, 2009 editions: IAEA Safety Standards Series No. TS-R-1;

.5 for the 2012 edition: IAEA Safety Standards Series No. SSR-6; and

.6 for the 2018 edition: IAEA Safety Standards Series No. SSR-6 (Rev.1)."

"*Inner vessel,* for a closed cryogenic receptacle, means the pressure vessel intended to contain the refrigerated liquefied gas."

"*Pressure receptacle shell* means a cylinder, a tube, a pressure drum or a salvage pressure receptacle without its closures or other service equipment, but including any permanently attached device(s) (e.g. neck ring, foot ring, etc.).

Note: The terms "cylinder shell", "pressure drum shell" and "tube shell" are also used."

"*Service equipment* of a pressure receptacle means closure(s), manifold(s), piping, porous, absorbent or adsorbent material and any structural devices, e.g. for handling."

1.2.2 Units of measurement

1.2.2.1 In the table, after the entry for "Power", add the following new entry:

Electrical resistance	Ω (ohm)	–	$1\ \Omega = 1\ kg \cdot m^2 \cdot s^{-3} \cdot A^{-2}$

Chapter 1.4
Security provisions

1.4.3 Provisions for high consequence dangerous goods

1.4.3.2 Specific security provisions for high consequence dangerous goods

1.4.3.2.3 Delete both footnotes "*" and "†". After "Convention on Physical Protection of Nuclear Material", add "(INFCIRC/274/Rev.1, IAEA, Vienna (1980))". After "*Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities*", add "(INFCIRC/225/Rev.5, IAEA, Vienna (2011))".

Chapter 1.5
General provisions concerning radioactive material

1.5.1 Scope and application

1.5.1.1 Replace the second sentence to read "These provisions are based on the 2018 edition of the IAEA Regulations for the Safe Transport of Radioactive Material".

PART 2
CLASSIFICATION

Chapter 2.4
Class 4 – Flammable solids; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases

2.4.2 Class 4.1 – Flammable solids, self-reactive substances, solid desensitized explosives and polymerizing substances

2.4.2.3 Class 4.1 Self-reactive substances

2.4.2.3.2 *Classification of self-reactive substances*

2.4.2.3.2.3 In the last sentence, after the words "The formulations" add the words "not listed in this provision but".

In the table, add the following new entry in proper order:

3230	(7-METHOXY-5-METHYL-BENZOTHIOPHEN-2-YL) BORONIC ACID	88-100	OP7			(11)

Under the table, add the following new table note:
"(11) The technical compound with the specified concentration limits may contain up to 12% water and up to 1% organic impurities."

Chapter 2.5
Class 5 – Oxidizing substances and organic peroxides

2.5.3 Class 5.2 – Organic peroxides

2.5.3.2 Classification of organic peroxides

2.5.3.2.4 List of currently assigned organic peroxides in packagings

In the last sentence, after the words "The formulations" add the words "not listed in this provision but".

In the table, add the following new entries in proper order:

3105	*tert*-BUTYLPEROXY ISOPROPYLCARBONATE	≤ 62		≥ 38			OP7			
3107	ACETYL ACETONE PEROXIDE	≤ 35	≥ 57			≥ 8	OP8			(32)
3117	*tert*-HEXYL PEROXYPIVALATE	≤ 52 as a stable dispersion in water					OP8	+15	+20	

In the list of "Remarks" add the following entry:

"(32) Active oxygen ≤ 4.15%"

Chapter 2.6
Class 6 – Toxic and infectious substances

2.6.0 Introductory notes

In note 3, at the end, add the words "or UN 3462".

Chapter 2.7
Class 7 – Radioactive material

2.7.2 Classification

2.7.2.3 Determination of other material characteristics

2.7.2.3.1 *Low specific activity (LSA)*

2.7.2.3.1.4 Delete the paragraph and add the words "2.7.2.3.1.4 Deleted."

2.7.2.3.1.5 Delete the paragraph and add the words "2.7.2.3.1.5 Deleted."

2.7.2.3.4 *Low dispersible material*

Replace the heading to read "***Low dispersible radioactive material***".

2.7.2.3.4.1.3 In the first sentence, replace "2.7.2.3.1.4" with "2.7.2.3.4.3".

2.7.2.3.4.3 Insert a new paragraph 2.7.2.3.4.3 to read as follows:

> "2.7.2.3.4.3 A solid material sample representing the entire contents of the package shall be immersed for seven days in water at ambient temperature. The volume of water to be used in the test shall be sufficient to ensure that at the end of the seven-day test period the free volume of the unabsorbed and unreacted water remaining shall be at least 10% of the volume of the solid test sample itself. The water shall have an initial pH of 6-8 and a maximum conductivity of 1 mS/m at 20°C. The total activity of the free volume of water shall be measured following the seven-day immersion of the test sample."

and renumber the existing paragraph 2.7.2.3.4.3 to 2.7.2.3.4.4 and replace "2.7.2.3.4.1 and 2.7.2.3.4.2" with "2.7.2.3.4.1, 2.7.2.3.4.2 and 2.7.2.3.4.3".

Chapter 2.8
Class 8 – Corrosive substances

2.8.3 Packing group assignment for substances and mixtures

2.8.3.2 In the second sentence, replace the words "OECD Test Guidelines*†‡§" with the words "OECD Test Guidelines Nos. 404,* 435,† 431‡ or 430§". In the third sentence, replace the words "OECD Test Guidelines*†‡§" with the words "one of these or non-classified in accordance with OECD Test Guideline No. 439,[11]". In the fourth sentence, delete the words "*in vitro*". At the end, add the following new sentence: "If the test results indicate that the substance or mixture is corrosive, but the test method does not allow discrimination between packing groups, it shall be assigned to packing group I if no other test results indicate a different packing group."

Add a footnote [11] to read "[11] *OECD Guideline for the testing of chemicals No. 439 In Vitro Skin Irritation: Reconstructed Human Epidermis Test Method 2015*."

2.8.3.3.3.2 Replace the words "ISO 3574 or Unified Numbering System (UNS) G10200 or a similar type" with the words "ISO 3574, Unified Numbering System (UNS) G10200".

Chapter 2.9
Miscellaneous dangerous substances and articles (class 9) and environmentally hazardous substances

2.9.3 Environmentally hazardous substances (aquatic environment)

2.9.3.4 Mixtures classification categories and criteria

2.9.3.4.3 *Classification of mixtures when toxicity data are available for the complete mixture*

2.9.3.4.3.4 (a) *Classification for categories Chronic 1 and 2*

After (i), add a new note to read as follows:

"**Note:** In this situation, when ECx or NOEC of the tested mixture > 0.1 mg/L, there is no need to classify for long-term hazard under these provisions."

2.9.4 Lithium batteries

2.9.4.7 Amend the beginning of the sentence to read "Except for button cells installed in equipment (including circuit boards), manufacturers...".

PART 3
DANGEROUS GOODS LIST, SPECIAL PROVISIONS AND EXCEPTIONS

Chapter 3.1
General

3.1.4 Segregation groups

3.1.4.4 In the entry "**1 Acids (SGG1 or SGG1a)**", replace the heading to read "**1 Acids (SGG1)**", and delete all asterisks and the corresponding footnote "* identifies strong acids".

Chapter 3.2
Dangerous Goods List

Dangerous Goods List

UN No.	Amendment
1002	In column 6, add "397"
1012	In column 6, add "398"
1052	In column 16b, replace "SGG1a" with "SGG1"
1169 PG II	Delete the entry
1169 PG III	Delete the entry
1197 PG II	Replace column 2 to read "EXTRACTS, LIQUID, for flavour or aroma"
1197 PG III	Replace column 2 to read "EXTRACTS, LIQUID, for flavour or aroma"
1439	In column 16b, replace "SG75" with "SG35". In column 17, delete the word "strong".
1756	In column 17, delete the word "strong"
1757	In column 17, delete the word "strong"
1777	In column 16b, replace "SGG1a" with "SGG1"
1786	In column 16b, replace "SGG1a" with "SGG1"
1787 PG II	In column 16b, replace "SGG1a" with "SGG1"
1787 PG III	In column 16b, replace "SGG1a" with "SGG1"
1788 PG II	In column 16b, replace "SGG1a" with "SGG1"
1788 PG III	In column 16b, replace "SGG1a" with "SGG1"
1789 PG II	In column 16b, replace "SGG1a" with "SGG1"
1789 PG III	In column 16b, replace "SGG1a" with "SGG1"
1790 PG I	In column 16b, replace "SGG1a" with "SGG1"
1790 PG II	In column 16b, replace "SGG1a" with "SGG1"
1796 PG I	In column 16b, replace "SGG1a" with "SGG1"
1796 PG II	In column 16b, replace "SGG1a" with "SGG1"
1798	In column 16b, replace "SGG1a" with "SGG1"
1802	In column 16b, replace "SGG1a" with "SGG1"

UN No.	Amendment
1826 PG I	In column 16b, replace "SGG1a" with "SGG1"
1826 PG II	In column 16b, replace "SGG1a" with "SGG1"
1830	In column 16b, replace "SGG1a" with "SGG1"
1831	In column 16b, replace "SGG1a" with "SGG1"
1832	In column 16b, replace "SGG1a" with "SGG1"
1873	In column 16b, replace "SGG1a" with "SGG1"
1891	In column 3, replace "6.1" with "3". In column 4, add "6.1". In column 7a, replace "100 mL" with "1 L". In column 7b, replace "E4" with "E2". In column 15, replace "F-A" with "F-E" and replace "S-A" with "S-D". In column 17, before the words "Boiling point: 38°C.", add the words "Flashpoint -20°C c.c."
1906	In column 16b, replace "SGG1a" with "SGG1"
2031 PG I	In column 16b, replace "SGG1a" with "SGG1"
2031 PG II (*twice*)	In column 16b, replace "SGG1a" with "SGG1"
2032	In column 16b, replace "SGG1a" with "SGG1"
2240	In column 16b, replace "SGG1a" with "SGG1"
2308	In column 16b, replace "SGG1a" with "SGG1"
2426	In column 17, delete the word "strong"
2716	In column 17, delete the word "strong"
2796	In column 16b, replace "SGG1a" with "SGG1"
3208 PG II	In column 7b, replace "E0" with "E2"
3209 PG II	In column 7b, replace "E2" with "E0"
3527 PG II	In column 7b, replace "E0" with "See SP340"
3527 PG III	In column 7b, replace "E0" with "See SP340"
3538	In column 6, add "396"

(1)	(2)	(3)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16a)	(16b)	(17)
3550	COBALT DIHYDROXIDE POWDER, containing not less than 10% respirable particles	6.1	**P**	I	-	0	E5	P002	-	IBC07	B1 B40	-	T6	TP3 3	F-A, S-A	Category D SW2	-	Pink odourless powder. Toxic by dust inhalation.

Chapter 3.3
Special provisions applicable to certain substances, materials or articles

SP188 In .6, delete note 1 and renumber "**Note 2**" to "**Note**".

SP225 After .1, insert the following new note:

"**Note:** This entry applies to portable fire extinguishers, even if some components that are necessary for their proper functioning (e.g. hoses and nozzles) are temporarily detached, as long as the safety of the pressurized extinguishing agent containers is not compromised and the fire extinguishers continue to be identified as a portable fire extinguisher."

Add the following new special provisions:

"396 Large and robust articles may be transported with connected gas cylinders with the valves open regardless of 4.1.6.1.5 provided:

.1 the gas cylinders contain nitrogen of UN 1066 or compressed gas of UN 1956 or compressed air of UN 1002;

.2 the gas cylinders are connected with the article through pressure regulators and fixed piping in such a way that the pressure of the gas (gauge pressure) in the article does not exceed 35 kPa (0.35 bar);

.3 the gas cylinders are properly secured so that they cannot move in relation to the article and are fitted with strong and pressure resistant hoses and pipes;

.4 the gas cylinders, pressure regulators, piping and other components are protected from damage and impacts during transport by wooden crates or other suitable means;

.5 the transport document includes the following statement: "Transport in accordance with special provision 396."; and

.6 cargo transport units containing articles transported with cylinders with open valves containing a gas presenting a risk of asphyxiation are well ventilated and are marked in accordance with 5.5.3.6."

"397 Mixtures of nitrogen and oxygen containing not less than 19.5% and not more than 23.5% oxygen by volume may be transported under this entry when no other oxidizing gases are present. A division 5.1 subsidiary hazard label is not required for any concentrations within this limit."

"398 This entry applies to mixtures of butylenes, 1-butylene, *cis*-2-butylene and *trans*-2-butylene. For isobutylene, see UN 1055."

PART 4
PACKING AND TANK PROVISIONS

Chapter 4.1
Use of packagings, including intermediate bulk containers (IBCs) and large packagings

4.1.1 General provisions for the packing of dangerous goods in packagings, including IBCs and large packagings

4.1.1.15 Add a note at the end to read as follows:

"**Note:** For composite IBCs the period of use refers to the date of manufacture of the inner receptacle."

4.1.1.19 Use of salvage pressure receptacles

4.1.1.19.2 Delete the second sentence. In the fourth sentence, replace "1,000" with "3,000".

4.1.3 General provisions concerning packing instructions

4.1.3.3 Add a new last sentence to read as follows:

"Where packagings which need not meet the requirements of 4.1.1.3 (e.g. crates, pallets, etc.) are authorized in a packing instruction or the special provisions named in the Dangerous Goods List, these packages are not subject to the mass or volume limits generally applicable to packagings conforming to the requirements of chapter 6.1, unless otherwise indicated in the relevant packing instruction or special provision."

4.1.4 List of packing instructions

4.1.4.1 Packing instructions concerning the use of packagings (except IBCs and large packagings)

P003 Under special packing provision PP32, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P004 At the end, after (3), add a new note to read as follows:

"**Note:** The packagings authorized in (2) and (3) may exceed a net mass of 400 kg (see 4.1.3.3)."

P005 In the second row after the heading row, under the second paragraph, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P006 In paragraph (2), at the end, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P130 In special packing provision PP67, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P137 In special packing provision PP70, first sentence, replace "in accordance with 5.2.1.7.1" with "as illustrated in figures in 5.2.1.7.1".

P144 Under special packing provision PP77, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P200 In paragraph (5), in special packing provision "d", after "steel pressure receptacles", insert the words "or composite pressure receptacles with steel liners".

In special packing provision "z", at the end, add the following:

"Mixtures of fluorine and nitrogen with a fluorine concentration below 35% by volume may be filled in pressure receptacles up to a maximum allowable working pressure for which the partial pressure of fluorine does not exceed 31 bar (abs.).

$$\textit{working pressure}\ (\text{bar}) < \frac{31}{x_f} - 1$$

in which x_f = fluorine concentration in % by volume/100.

Mixtures of fluorine and inert gases with a fluorine concentration below 35% by volume may be filled in pressure receptacles up to a maximum allowable working pressure for which the partial pressure of fluorine does not exceed 31 bar (abs.), additionally taking the coefficient of nitrogen equivalency in accordance with ISO 10156:2017 into account when calculating the partial pressure.

$$\textit{working pressure}\ (\text{bar}) < \frac{31}{x_f}\left(x_f + K_k \times x_k\right) - 1$$

in which x_f = fluorine concentration in % by volume/100;

K_k = coefficient of equivalency of an inert gas relative to nitrogen (coefficient of nitrogen equivalency); and

x_k = inert gas concentration in % by volume/100.

However, the working pressure for mixtures of fluorine and inert gases shall not exceed 200 bar. The minimum test pressure of pressure receptacles for mixtures of fluorine and inert gases equals 1.5 times the working pressure or 200 bar, with the greater value to be applied."

P200 In table 2:

.1 for UN 1008, replace "387" with "864" in column "LC_{50}, mL/m^3";

.2 for UN 2196, replace "160" with "218" in column "LC_{50}, mL/m^3", insert "X" in columns "Tubes", "Pressure drums" and "MEGCs", and delete ", k" in column "Special packing provisions"; and

.3 for UN 2198, replace "190" with "261" in column "LC_{50}, mL/m³", insert "X" in columns "Tubes", "Pressure drums" and "MEGCs", and delete "k" in column "Special packing provisions" (*twice*).

In table 3, for UN 1052, replace "966" with "1307" in column "LC_{50}, mL/m³".

P205 In paragraphs (5), (6) and (7), replace "ISO 16111:2008" with "ISO 16111:2008 or ISO 16111:2018". In paragraph (7), at the end, add the following new sentence: "See 6.2.2.4 to determine which standard is applicable at the time of periodic inspection and test."

P208 In paragraph (1)(a), replace "ISO 11513:2011 or ISO 9809-1:2010" with "ISO 11513:2011, ISO 11513:2019, ISO 9809-1:2010 or ISO 9809-1:2019". In paragraph (11), replace "Annex A of ISO 11513:2011" with "Annex A of ISO 11513:2011 (applicable until 31 December 2024) or Annex A of ISO 11513:2019".

P408 In paragraph (2), at the end, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P621 In paragraph (1), for "Drums", replace the text in parentheses to read "(1A1, 1A2, 1B1, 1B2, 1N1, 1N2, 1H1, 1H2, 1D, 1G)". For "Jerricans", replace the text in parentheses to read "(3A1, 3A2, 3B1, 3B2, 3H1, 3H2)".

P801 At the end, after paragraph (2), add a new note to read as follows:

"**Note:** The packagings authorized in (1) and (2) may exceed a net mass of 400 kg (see 4.1.3.3)."

P903 In paragraph (2), in the first sentence, at the beginning, replace the words "cells or batteries" with the words "a cell or a battery" and at the end, delete the words ", and assemblies of such cells or batteries". In paragraphs (4) and (5), transfer the phrase "when intentionally active" to the beginning of the sentence to read: "When intentionally active, devices such as radio frequency identification (RFID) tags, watches and temperature loggers, which are not capable of generating a dangerous evolution of heat, may be transported in strong outer packagings."

At the end, after paragraph (5), add a new note to read as follows:

"**Note:** The packagings authorized in (2), (4) and (5) may exceed a net mass of 400 kg (see 4.1.3.3)."

P905 In the second row after the heading row, after the first sentence, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P906 In paragraph (2), under sub-paragraph (b), add a new note to read as follows:

"**Note 1:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

Under the last paragraph, before the additional provisions, add a new note to read as follows:

"**Note 2:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P907 At the end, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P909 At the end, after paragraph (4), add a new note to read as follows:

"**Note:** The packagings authorized in (3) and (4) may exceed a net mass of 400 kg (see 4.1.3.3)."

P910 In paragraph (3), at the end, add a new note to read as follows:

"**Note:** The packagings authorized may exceed a net mass of 400 kg (see 4.1.3.3)."

P911 In note *, at the end, add a new indent to read as follows:

"(i) In the case of multiple batteries and multiple items of equipment containing batteries, additional requirements such as the maximum number of batteries and items of equipment, the total maximum energy content of the batteries, and the configuration inside the package, including separations and protections of the parts, shall be considered."

4.1.4.2 Packing instructions concerning the use of IBCs

IBC02 In special packing provision B15, replace the words "of composite IBCs with a rigid plastics inner receptacle" with the words "of rigid plastics inner receptacles of composite IBCs".

IBC07 Add the following new special packing provision:

"**B40** UN 3550 may be transported in flexible IBCs (13H3 or 13H4) with siftproof liners to prevent any egress of dust during transport."

IBC520 In the second sentence (third row), after the words "The formulations" add the words "not listed in 2.4.2.3.2.3 and 2.5.3.2.4 but".

LP906 Replace the third sentence to read "For batteries and items of equipment containing batteries:"

In paragraph (2), replace the second paragraph to read as follows:

"A verification report shall be made available on request. As a minimum requirement, the name of the batteries, their type as defined in section 38.3.2.3 of the *Manual of Tests and Criteria*, the maximum number of batteries, the total mass of batteries, the total energy content of the batteries, the large packaging identification and the test data according to the verification method as specified by the competent authority shall be listed in the verification report. A set of specific instructions describing the way to use the package shall also be part of the verification report."

Add a fourth paragraph to read as follows:

"(4) The specific instructions for use of the package shall be made available by the packaging manufacturers and subsequent distributors to the consignor. They shall include at least the identification of the batteries and items of equipment that may be contained inside the packaging, the maximum number of batteries contained in the package and the maximum total of the batteries' energy content, as well as the configuration inside the package,

including the separations and protections used during the performance verification test."

In note *, at the end, add a new indent to read as follows:

"(i) In the case of multiple batteries and multiple items of equipment containing batteries, additional requirements such as the maximum number of batteries and items of equipment, the total maximum energy content of the batteries, and the configuration inside the package, including separations and protections of the parts, shall be considered."

4.1.6 Special packing provisions for goods of class 2

4.1.6.1 General provisions

4.1.6.1.6 Add to the end of the first sentence the words "and taking into account the lowest pressure rating of any component".

Insert the following new second sentence:

"Service equipment having a pressure rating lower than other components shall nevertheless comply with 6.2.1.3.1."

Delete the final sentence.

4.1.6.1.8 In the penultimate paragraph, first sentence, replace "1SO 11117:1998 or ISO 11117:2008 + Cor 1:2009" with "1SO 11117:1998, ISO 11117:2008 + Cor 1:2009 or ISO 11117:2019". In the final sentence, after "ISO 16111:2008", add "or ISO 16111:2018".

4.1.6.1.10 In the first sentence, insert the word "closed" before the words "cryogenic receptacles" and replace "P205 or P206" with "P205, P206 or P208".

4.1.9 Special packing provisions for radioactive material

4.1.9.1 General

4.1.9.1.4 In the first sentence, delete the words ", tanks, IBCs".

Chapter 4.2
Use of portable tanks and multiple-element gas containers (MEGCs)

4.2.5 Portable tank instructions and special provisions

4.2.5.2 Portable tank instructions

4.2.5.2.1 At the end, add "or chapter 6.10".

4.2.5.2.2 In the first sentence, in the text in parenthesis, after the words "reference steel", add the words "or the minimum shell thickness of fibre-reinforced plastics".

4.2.5.2.2 In the first sentence, in the text in parenthesis, after "reference steel", add "or the minimum shell thickness of fibre-reinforced plastics".

4.2.5.2.6 In the introductory paragraph, in the second sentence, after the words "(in millimetres of reference steel)", insert the words "or the minimum shell thickness for fibre-reinforced plastics (FRP) portable tanks".

In the table for T1-T22, in the heading row, add the following sentences at the end:

> "The instructions for portable tanks with FRP shells apply to substances of classes or divisions 1, 3, 5.1, 6.1, 6.2, 8 and 9. Additionally, the provisions of chapter 6.10 apply to the portable tanks with FRP shells."

T23 In the paragraph under the heading row, last sentence, after the words "The formulations" add the words "not listed in 2.4.2.3.2.3 and 2.5.3.2.4 but".

For UN No. 3109 "ORGANIC PEROXIDE, TYPE F, LIQUID" add "*tert*-Butyl hydroperoxide, not more than 56% in diluent type B[†]" under the column "Substance". Add a new note "[†]" under the table to read "[†] Diluent type B is *tert*-Butyl alcohol" and renumber existing table notes "[†]" to "[§]" to become "[‡]" to "1*".

4.2.5.3 Portable tank special provisions

TP32 In .1, in the first sentence, after the words "of metal", insert the words "or fibre-reinforced plastics".

PART 5
CONSIGNMENT PROCEDURES

Chapter 5.1
General provisions

5.1.2 Use of overpacks and unit loads

5.1.2.1 In the second sentence, at the end, delete the words ", except as required in 5.2.2.1.12". Add the following new third sentence before the final sentence:

> "Labelling of overpacks containing radioactive materials shall be in accordance with 5.2.2.1.12."

5.1.5 General provisions for class 7

5.1.5.1 Approval of shipments and notification

5.1.5.1.3 *Shipment approval by special arrangement*

Replace the text in paragraph to read as follows:

> "A competent authority may approve provisions under which consignments that do not satisfy all the applicable requirements of this Code may be transported under special arrangement (see 1.5.4)."

Chapter 5.2
Marking and labelling of packages including IBCs

5.2.1 Marking of packages including IBCs

5.2.1.7 Orientation arrows

5.2.1.7.1 At the third indent, replace the words "cryogenic receptacles" with the words "closed or open cryogenic receptacles".

5.2.1.7.2 In .1, replace the words "cryogenic receptacles" with the words "closed or open cryogenic receptacles".

5.2.1.10 Lithium battery mark

5.2.1.10.2 Remove the double asterisk in the figure "Lithium battery mark" and remove the note for the double asterisk below the figure.

At the end, add a new note to read as follows:

> "**Note:** The mark shown in the figure "Lithium battery mark" in 5.2.1.10.2 of the IMDG Code amendment 40-20, showing the telephone number for additional information, may continue to be applied until 31 December 2026."

Chapter 5.4
Documentation

5.4.1 Dangerous goods transport information

5.4.1.4 Information required on the dangerous goods transport document

5.4.1.4.3 *Information which supplements the proper shipping name in the dangerous goods description*

5.4.1.4.3 After .3, add the following new paragraph:

> ".4 *Molten substances*: When a substance which is solid in accordance with the definition in 1.2.1 is offered for transport in the molten state, the qualifying word "MOLTEN" shall be added as part of the proper shipping name, unless it is already part of the proper shipping name (see 3.1.2.5)."

Renumber the existing paragraphs .4, .5, .6 and .7 to .5, .6, .7 and .8, respectively.

At the end, add the following new paragraph:

> ".9 *Stabilized and temperature controlled substances*: Unless already part of the proper shipping name the word "STABILIZED" shall be added to the proper shipping name if stabilization is used and the words "TEMPERATURE CONTROLLED" shall be added to the proper shipping name if stabilization is by temperature control or a combination of chemical stabilization and temperature control (see 3.1.2.6)."

5.4.1.5 Information required in addition to the dangerous goods description

5.4.1.5.3 ***Salvage packagings including large salvage packagings and salvage pressure receptacles***

Replace the text in the paragraph to read as follows:

"For dangerous goods transported in salvage packagings in accordance with 4.1.1.18, including large salvage packagings, larger size packagings or large packagings of appropriate type and performance level to be used as a salvage packaging, the words "SALVAGE PACKAGING" shall be included.

For dangerous goods transported in salvage pressure receptacles in accordance with 4.1.1.19, the words "SALVAGE PRESSURE RECEPTACLE" shall be included."

5.4.1.5.4 ***Substances stabilized by temperature control***

Replace the words "If the word "STABILIZED" is part of" with the words "If the words "**TEMPERATURE CONTROLLED**" are part of" and delete the words "when stabilization is by means of temperature control,".

5.4.1.5.17 ***Transport of UN Nos. 3528, 3529 and 3530***

Replace the paragraph to read as follows:

"**5.4.1.5.17** ***Additional entries in the case of the application of special provisions***

Where, in accordance with a special provision in chapter 3.3, additional information is necessary, this additional information shall be included in the dangerous goods transport document."

PART 6
CONSTRUCTION AND TESTING OF PACKAGINGS, INTERMEDIATE BULK CONTAINERS (IBCs), LARGE PACKAGINGS, PORTABLE TANKS, MULTIPLE-ELEMENT GAS CONTAINERS (MEGCs) AND ROAD TANK VEHICLES

Chapter 6.1
Provisions for the construction and testing of packagings (other than for class 6.2 substances)

6.1.1 Applicability and general provisions

6.1.1.2 General provisions

6.1.1.2.1 In the second sentence, replace the words "successfully to withstand the tests" with the words "to successfully fulfil the requirements".

6.1.1.3 In the note, replace "*ISO 16106:2006*" with "*ISO 16106:2020*" and delete the word "*Packaging –*" in the standard's title.

Chapter 6.2
Provisions for the construction and testing of pressure receptacles, aerosol dispensers, small receptacles containing gas (gas cartridges) and fuel cell cartridges containing liquefied flammable gas

6.2.1 General provisions

6.2.1.1 Design and construction

6.2.1.1.1 After the words "Pressure receptacles" delete the words "and their closures". At the end of the sentence replace the word "transport" with the words "transport and intended use".

6.2.1.1.4 At the end of the sentence replace the word "used" with the word "welded".

6.2.1.1.5 In the first sentence replace the words "cylinders, tubes, pressure drums" with the words "pressure receptacle shells". In the final sentence after the words "The test pressure of a cylinder" insert the word "shell".

6.2.1.1.6 At the beginning of the first and the second sentences replace the words "Pressure receptacles" with the words "Cylinders or cylinder shells". In the final sentence replace the first words "pressure receptacle" with the words "cylinder shell" and the second and third words "pressure receptacle" with the word "cylinder".

6.2.1.1.8.2 In the third and fourth sentences replace the words "pressure receptacle" with the words "inner vessel". At the end of the fourth sentence replace the word "fittings" with the words "service equipment".

6.2.1.1.9 *Additional requirements for the construction of pressure receptacle for acetylene*

At the end of the heading replace the words "***pressure receptacle for acetylene***" with the words "***acetylene cylinders***". In the first sentence replace the words "Pressure receptacle" with the words "Cylinder shells". In .1, replace the words "pressure receptacle" with the words "cylinder shell". In the final sentence replace the words "compatible with the pressure receptacle" with the words "compatible with those parts of the cylinder that are in contact with it".

6.2.1.2 Materials

6.2.1.2.1 After the words "Construction materials of pressure receptacles" delete the words "and their closures".

6.2.1.2.2 At the beginning of the first sentence, after the words "Pressure receptacles", delete the words "and their closures".

6.2.1.3 Service equipment

6.2.1.3.1 Replace the words "Valves, piping and other fittings" with the words "Service equipment" and replace the words "excluding pressure relief devices" with the words "excluding porous, absorbent or adsorbent material, pressure relief devices, pressure gauges or indicators".

6.2.1.3.2 Replace the paragraph to read as follows:

> "6.2.1.3.2 Service equipment shall be configured or designed to prevent damage and unintended opening that could result in the release of

the pressure receptacle contents during normal conditions of handling and transport. All closures shall be protected in the same manner as is required for valves in 4.1.6.1.8. Manifold piping leading to shut-off valves shall be sufficiently flexible to protect the shut-off valves and the piping from shearing or releasing the pressure receptacle contents."

6.2.1.3.3 Replace the words "shall be fitted with devices" with the words "shall be fitted with handling devices".

6.2.1.4 Approval of pressure receptacles

6.2.1.4.1 Delete the second sentence beginning with the words "Pressure receptacles…".

6.2.1.4.3 Insert a new paragraph 6.2.1.4.3 to read:

"6.2.1.4.3 Pressure receptacle shells and the inner vessels of closed cryogenic receptacles shall be inspected, tested and approved by an inspection body."

6.2.1.4.4 Insert a new paragraph 6.2.1.4.4 as follows:

"6.2.1.4.4 For refillable cylinders, pressure drums and tubes, the conformity assessment of the shell and the closure(s) may be carried out separately. In these cases, an additional assessment of the final assembly is not required.

For bundles of cylinders, the cylinder shells and the valve(s) may be assessed separately, but an additional assessment of the complete assembly is required.

For closed cryogenic receptacles, the inner vessels and the closures may be assessed separately, but an additional assessment of the complete assembly is required.

For acetylene cylinders, conformity assessment shall comprise either:

.1 one assessment of conformity covering both the cylinder shell and the contained porous material; or

.2 a separate assessment of conformity for the empty cylinder shell and an additional assessment of conformity covering the cylinder shell with the contained porous material."

6.2.1.5 Initial inspection and test

6.2.1.5.1 In the first sentence replace the words "closed cryogenic receptacles and metal hydride storage systems" with the words "closed cryogenic receptacles, metal hydride storage systems and bundles of cylinders" and after the words "the applicable design standards" insert the words "or recognized technical codes".

In the line before .1, replace the words "pressure receptacles" with the words "pressure receptacle shells". In .4, at the end delete the words "of the pressure receptacles". In .5, replace the words "neck threads" with the words "threads used to fit closures". In the line before .7,

replace the words "all pressure receptacles" with the words "all pressure receptacle shells". In .7, replace the words "pressure receptacles" with the words "pressure receptacle shells". In .8, both sentences, replace the words "pressure receptacles" with the words "pressure receptacle shells". In .9 replace the words "pressure receptacles" with the words "pressure receptacle shells". In .10 replace the words "pressure receptacles" with the words "cylinder shells".

After .10 insert the following new provisions:

"On an adequate sample of closures:

.11 verification of materials;

.12 verification of dimensions;

.13 verification of cleanliness;

.14 inspection of completed assembly; and

.15 verification of the presence of marks.

For all closures:

.16 testing for leakproofness."

6.2.1.5.2 Replace the paragraph to read as follows:

"6.2.1.5.2 Closed cryogenic receptacles shall be subjected to testing and inspection during and after manufacture in accordance with the applicable design standards or recognized technical codes including the following:

On an adequate sample of inner vessels:

.1 testing of the mechanical characteristics of the material of construction;

.2 verification of the minimum wall thickness;

.3 inspection of the external and internal conditions;

.4 verification of the conformance with the design standard or code; and

.5 inspection of welds by radiographic, ultrasonic or other suitable non-destructive test method according to the applicable design and construction standard or code.

For all inner vessels:

.6 a hydraulic pressure test; the inner vessel shall meet the acceptance criteria specified in the design and construction technical standard or technical code;

Note: With the agreement of the competent authority, the hydraulic pressure test may be replaced by a test using a gas, where such an operation does not entail any danger.

.7 inspection and assessment of manufacturing defects and either repairing them or rendering the inner vessel unserviceable; and

.8 an inspection of the marks.

On an adequate sample of closures:

.9 verification of materials;

.10 verification of dimensions;

.11 verification of cleanliness;

.12 inspection of completed assembly; and

.13 verification of the presence of marks.

For all closures:

.14 testing for leakproofness.

On an adequate sample of completed closed cryogenic receptacles:

.15 testing the satisfactory operation of service equipment; and

.16 verification of the conformance with the design standard or code.

For all completed closed cryogenic pressure receptacles:

.17 testing for leakproofness."

6.2.1.5.3 In the first sentence replace the words "receptacles" with the words "pressure receptacle shells".

6.2.1.5.4 Insert the following new paragraph:

"6.2.1.5.4 For bundles of cylinders the cylinder shells and closures shall be subjected to initial inspection and tests specified in 6.2.1.5.1. An adequate sample of frames shall be proof load tested to two times the maximum gross weight of the bundles of cylinders.

Additionally, all manifolds of bundle of cylinders shall undergo a hydraulic pressure test and all the completed bundles of cylinders shall undergo a leakproofness test.
Note: With the agreement of the competent authority, the hydraulic pressure test may be replaced by a test using a gas, where such an operation does not entail any danger."

6.2.1.6 Periodic inspection and test

6.2.1.6.1 Replace .3 and .4 with the following:

".3 Checking of the threads either:

.1 if there is evidence of corrosion; or

.2 if the closures or other service equipment are removed;

.4 A hydraulic pressure test of the pressure receptacle shell and, if necessary, verification of the characteristics of the material by suitable tests;"

In note 2, replace the words "cylinders or tubes" with the words "cylinder shells or tube shells".

Replace note 3 to read as follows:

"**Note 3:** The check of internal conditions of 6.2.1.6.1.2 and the hydraulic pressure test of 6.2.1.6.1.4 may be replaced by ultrasonic examination carried out in accordance with ISO 18119:2018 for seamless steel and seamless aluminium alloy cylinder shells. For a transitional period until 31 December 2024 the standard ISO 10461:2005 +A1:2006 may be used for seamless aluminium alloy cylinders and ISO 6406:2005 may be used for seamless steel cylinder shells for this same purpose."

Insert the following new note 4:

"Note 4: For bundles of cylinders the hydraulic test specified in .4 above shall be carried out on the cylinder shells and on the manifold."

Replace current .5 and add a new .6 as follows:

".5 Check of service equipment, if to be reintroduced into service. This check may be carried out separately from the inspection of the pressure receptacle shell.

.6 A leakproofness test of bundles of cylinders after reassembly."

6.2.1.6.2 Replace the words "Pressure receptacles" with the word "Cylinders".

6.2.1.7 Requirements for manufacturers

6.2.1.7.2 Replace the paragraph to read as follows:

"6.2.1.7.2 A proficiency test of the manufacturers of pressure receptacle shells and the inner vessels of closed cryogenic receptacle shall in all instances be carried out by an inspection body approved by the competent authority of the country of approval. Proficiency testing of manufacturers of closures shall be carried out if the competent authority requires it. This test shall be carried out either during design type approval or during production inspection and certification."

6.2.2 Provisions for UN pressure receptacles

In note 2, after the words "UN pressure receptacles", delete the words "and service equipment".

6.2.2.1 Design, construction and initial inspection and test

6.2.2.1.1 In the first sentence replace the words "UN cylinders" with the words "refillable UN cylinder shells".

In the table, for "ISO 9809-1:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 9809-1:2010", add the following new entry:

ISO 9809-1:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa	Until further notice

In the table, for "ISO 9809-2:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 9809-2:2010", add the following new entry:

ISO 9809-2:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1 100 MPa	Until further notice

In the table, for "ISO 9809-3:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 9809-3:2010", add the following new entry:

ISO 9809-3:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 3: Normalized steel cylinders and tubes	Until further notice

In the table, delete the rows for "ISO 11118:1999" and "ISO 11118:2015".

In note 1, after the table, replace the words "composite cylinders" with the words "composite cylinder shells". In note 2, after the table, in the first sentence, replace the words "composite cylinders" with the words "composite cylinder shells". In the second sentence, replace the word "cylinders" with the words "composite cylinder shells". In the last sentence replace the word "cylinder" with the word "cylinder shell".

6.2.2.1.2 In the first sentence replace the words "UN tubes" with the words "UN tube shells". In the table, in the row for ISO 11515:2013, replace the words "Until further notice" with the words "Until 31 December 2026". Add a new row beneath this row as follows:

ISO 11515:2013 + Amd 1:2018	Gas cylinders – Refillable composite reinforced tubes of water capacity between 450 l and 3000 l – Design, construction and testing	Until further notice

At the end of the table, add the following new entries:

ISO 9809-1:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa	Until further notice
ISO 9809-2:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1 100 MPa	Until further notice
ISO 9809-3:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 3: Normalized steel cylinders and tubes	Until further notice

In note 1 after the table, replace the words "composite tubes" with the words "composite tube shells". In note 2 after the table, in the first sentence, replace the words "composite tubes" with the words "composite tube shells". In the second sentence, replace the word "tubes" with the words "composite tube shells". In the last sentence replace the word "tube" with the words "tube shell".

6.2.2.1.3 In the first table, for "ISO 9809-1:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 9809-1:2010", add the following new entry:

ISO 9809-1:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa	Until further notice

In the first table, for "ISO 9809-3:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 9809-3:2010", add the following new entry:

ISO 9809-3:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 3: Normalized steel cylinders and tubes	Until further notice

6.2.2.1.4 Replace the words "UN cryogenic receptacles" with the words "UN closed cryogenic receptacles". In the table, for "ISO 21029-1:2004", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 21029-1:2004", add the following new entry:

ISO 21029-1:2018 + Amd.1:2019	Cryogenic vessels – Transportable vacuum insulated vessels of not more than 1 000 litres volume – Part 1: Design, fabrication, inspection and tests	Until further notice

6.2.2.1.5 In the table, for "ISO 16111:2008", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 16111:2008", add the following new entry:

ISO 16111:2018	Transportable gas storage devices – Hydrogen absorbed in reversible metal hydride	Until further notice

6.2.2.1.6 In the first sentence, replace the words "The standard shown below" with the words "The following standard". In the second sentence replace the words "UN cylinder" with the words "UN cylinder or UN cylinder shell". In the table, for "ISO 10961:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 10961:2010", add the following new entry:

ISO 10961:2019	Gas cylinders – Cylinder bundles – Design, manufacture, testing and inspection	Until further notice

Replace the current note after the table with the following:

"**Note:** Changing one or more cylinders or cylinder shells of the same design type, including the same test pressure, in an existing UN bundle of cylinders does not require a new conformity assessment of the existing bundle. Service equipment of the bundle of cylinders can also be replaced without requiring a new conformity assessment if it complies with the design type approval."

6.2.2.1.7 In the table, for "ISO 11513:2011", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 11513:2011", add the following new entry:

ISO 11513:2019	Gas cylinders – Refillable welded steel cylinders containing materials for sub-atmospheric gas packaging (excluding acetylene) – Design, construction, testing, use and periodic inspection	Until further notice

In the table, for "ISO 9809-1:2010", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 9809-1:2010", add the following new entry:

ISO 9809-1:2019	Gas cylinders – Design, construction and testing of refillable seamless steel gas cylinders and tubes – Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa	Until further notice

6.2.2.1.8 In the table, in the row for "ISO 21172-1:2015", replace the words "Until further notice" with the words "Until 31 December 2026". Add the following new row to the table after "ISO 21172-1:2015":

ISO 21172-1:2015 + Amd 1:2018	Gas cylinders – Welded steel pressure drums up to 3 000 litres capacity for the transport of gases – Design and construction – Part 1: Capacities up to 1 000 litres	Until further notice

6.2.2.1.9 Insert a new paragraph and table as follows:

"6.2.2.1.9 The following standards apply to the design, construction and initial inspection and test of non-refillable UN cylinders except that the inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5.

Reference	Title	Applicable for manufacture
ISO 11118:1999	Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods	Until 31 December 2020
ISO 13340:2001	Transportable gas cylinders – Cylinder valves for non-refillable cylinders – Specification and prototype testing	Until 31 December 2020
ISO 11118:2015	Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods	Until 31 December 2026
ISO 11118:2015 +Amd.1:2019	Gas cylinders – Non-refillable metallic gas cylinders – Specification and test methods	Until further notice

"

6.2.2.2 Materials

In the first sentence delete the words "pressure receptacle".

6.2.2.3 Service equipment

6.2.2.3 Replace the heading "**Service equipment**" to read "**Closures and their protection**".

Replace the first sentence to read as follows:

"The following standards apply to the design, construction, and initial inspection and test of closures and their protection:"

In the first table, for "ISO 11117:2008 + Cor.1:2009", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 11117:2008 + Cor.1:2009", add the following new entry:

ISO 11117:2019	Gas cylinders – Valve protection caps and guards – Design, construction and tests	Until further notice

In the first table, delete the row for "ISO 13340:2001".

In the first table, for "ISO 17871:2015", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". In the column "Title", add the following new note under the title:

"**Note:** This standard shall not be used for flammable gases."

In the first table, after the entry for "17871:2015", add the following new entry:

ISO 17871:2020	Gas cylinders – Quick-release cylinder valves – Specification and type testing	Until further notice

In the second table, for "ISO 16111:2008", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2026". After the entry for "ISO 16111:2008", add the following new entry:

ISO 16111:2018	Transportable gas storage devices – Hydrogen absorbed in reversible metal hydride	Until further notice

6.2.2.4 Periodic inspection and test

Replace the first sentence to read "The following standards apply to periodic inspection and testing of UN pressure receptacles:"

In the first table, in the row for "ISO 6406:2005", replace the words "Until further notice" with the words "Until 31 December 2024". Add the following new row to the table after "ISO 6406:2005":

ISO 18119:2018	Gas cylinders – Seamless steel and seamless aluminium-alloy gas cylinders and tubes – Periodic inspection and testing	Until further notice

In the first table, in the row for "ISO 10460:2005", replace the words "Until further notice" with the words "Until 31 December 2024". Add the following new row to the table after "ISO 10460:2005":

ISO 10460:2018	Gas cylinders – Welded aluminium-alloy, carbon and stainless steel gas cylinders – Periodic inspection and testing.	Until further notice

In the first table, in the row for "ISO 10461:2005/Amd 1:2006", replace the words "Until further notice" with the words "Until 31 December 2024".

In the first table, for "ISO 10462:2013", in column "Applicable for manufacture", replace the words "Until further notice" by the words "Until 31 December 2024". After the entry for "ISO 10462:2013", add the following new entry:

ISO 10462:2013 + Amd1:2019	Gas cylinders – Acetylene cylinders – Periodic inspection and maintenance	Until further notice

In the first table, for "ISO 11513:2011", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2024". After the entry for "ISO 11513:2011", add the following new entry:

ISO 11513:2019	Gas cylinders – Refillable welded steel cylinders containing materials for sub-atmospheric gas packaging (excluding acetylene) – Design, construction, testing, use and periodic inspection	Until further notice

Delete the row for "ISO 11623:2002".

At the end of the first table, add the following new entry:

ISO 23088:2020	Gas cylinders – Periodic inspection and testing of welded steel pressure drums – Capacities up to 1 000 l	Until further notice

In the second table, for "ISO 16111:2008", in column "Applicable for manufacture", replace the words "Until further notice" with the words "Until 31 December 2024". After the entry for "ISO 16111:2008", add the following new entry:

ISO 16111:2018	Transportable gas storage devices – Hydrogen absorbed in reversible metal hydride	Until further notice

6.2.2.5 Conformity assessment system and approval for manufacture of pressure receptacles

At the beginning of 6.2.2.5 renumber 6.2.2.5.1 as 6.2.2.5.0 and insert the following new note at the end (after the definition for "*Verify*"):

"**Note:** In this subsection when separate assessment is used the term pressure receptacle shall refer to pressure receptacle, pressure receptacle shell, inner vessel of the closed cryogenic receptacle or closure, as appropriate."

6.2.2.5.1 Insert a new paragraph 6.2.2.5.1 to read as follows:

"6.2.2.5.1 The requirements of 6.2.2.5 shall be used for the conformity assessments of pressure receptacles. Paragraph 6.2.1.4.3 gives details of which parts of pressure receptacles may be conformity assessed separately. However, the requirements of 6.2.2.5 may be replaced by requirements specified by the competent authority in the following cases:

.1 conformity assessment of closures;

.2 conformity assessment of the complete assembly of bundles of cylinders provided the cylinder shells have been conformity assessed in accordance with the requirements of 6.2.2.5; and

.3 conformity assessment of the complete assembly of closed cryogenic receptacles provided the inner vessel has been conformity assessed in accordance with the requirements of 6.2.2.5."

6.2.2.5.4 *Approval process*

6.2.2.5.4.9 In .3, replace the existing text to read: "as required by the pressure receptacle standard or technical code, carry out or supervise the tests of pressure receptacles as required for design type approval;".

Add the following new sentence at the end of the penultimate paragraph:

"If it was not possible to evaluate exhaustively the compatibility of the materials of construction with the contents of the pressure receptacle when the certificate was issued, a statement that compatibility assessment was not completed shall be included in the design type approval certificate."

6.2.2.7 Marking of refillable UN pressure receptacles

Amend the note by replacing the words "6.2.2.9 and marking" with the words "6.2.2.9, marking" and inserting at the end the words "and marking requirements for closures are given in 6.2.2.11".

6.2.2.7.1 In the first sentence replace the words "pressure receptacles" with the words "pressure receptacle shells and closed cryogenic receptacles". At the end of the second sentence, delete the words "on the pressure receptacle". In the third sentence, after the words "neck of the pressure receptacle" insert the word "shell".

6.2.2.7.2 At the end, insert the following new note:

"**Note:** For acetylene cylinders the standard ISO 3807 shall also be marked."

After (e) insert the following new note:

"**Note:** When an acetylene cylinder is conformity assessed in accordance with 6.2.1.4.4.2 and the inspection bodies for the cylinder shell and the acetylene cylinder are different, their respective marks (d) are required. Only the initial inspection date (e) of the completed acetylene cylinder is required. If the country of approval of the inspection body responsible for the initial inspection and test is different a second mark (c) shall be applied."

6.2.2.7.3 In (g), in the second sentence, replace the words "mass of valve, valve cap" with the words "mass of closure(s), valve protection cap".

In (i), at the end insert the following note:

"**Note:** When a cylinder shell is intended for use as an acetylene cylinder (including the porous material), the working pressure mark is not required until the acetylene cylinder is completed."

In (j), in the first sentence replace the words "liquefied gases and refrigerated liquefied gases" with the words "liquefied gases, refrigerated liquefied gases and dissolved gases".

Replace paragraphs (k) and (l) with the following:

"(k) In the case of cylinders for UN 1001 acetylene, dissolved:

(i) the tare in kilograms consisting of the total of the mass of the empty cylinder shell, the service equipment (including porous material) not removed during filling, any coating, the solvent and the saturation gas expressed to three significant figures rounded down to the last digit followed by the letters "KG". At least one decimal shall be shown after the decimal point. For pressure receptacles of less than 1 kg, the mass shall be expressed to two significant figures rounded down to the last digit;

(ii) the identity of the porous material (e.g. name or trademark); and

(iii) the total mass of the filled acetylene cylinder in kilograms followed by the letters "KG".

(l) In the case of cylinders for UN 3374 acetylene, solvent free:

(i) the tare in kilograms consisting of the total of the mass of the empty cylinder shell, the service equipment (including porous material) not removed during filling and any coating expressed to three significant figures rounded down to the last digit followed by the letters "KG". At least one decimal shall be shown after the decimal point. For pressure receptacles of less than 1 kg, the mass shall be expressed to two significant figures rounded down to the last digit;

(ii) the identity of the porous material; and

(iii) the total mass of the filled acetylene cylinder in kilograms followed by the letters "KG"."

In (n), after the existing text insert the following new note:

"**Note:** For acetylene cylinders, if the manufacturer of the acetylene cylinder and the manufacturer of the cylinder shell are different, only the mark of the manufacturer of the completed acetylene cylinder is required."

6.2.2.7.8 Replace the paragraph to read as follows:

"6.2.2.7.8 The marks in accordance with 6.2.2.7.7 may be engraved on a metallic ring affixed to the cylinder or pressure drum when the valve is installed, and which is removable only by disconnecting the valve from the cylinder or pressure drum."

6.2.2.8 Marking of non-refillable UN pressure receptacles

In the heading replace the words "**pressure receptacles**" with the word "**cylinders**".

6.2.2.8.1 In the first sentence replace the words "pressure receptacles" with the word "cylinders" and the words "pressure receptacle" by the word "cylinder". In the second sentence replace the words "pressure receptacle" with the word "cylinder". In the third sentence replace the words "pressure receptacle" at the first occurrence with the words "cylinder shell" and at the second occurrence by the word "cylinder". In the fourth sentence replace the words "pressure receptacles" with the word "cylinders" (*twice*). In the fifth sentence replace the words "pressure receptacles" with the word "cylinders" (*twice*).
6.2.2.8.3 In the note, replace the word "*pressure receptacles*" with the word "*cylinders*".

6.2.2.10 Marking of UN bundles of cylinders

6.2.2.10.1 Replace the word "cylinders" with the words "cylinder shells".

Insert a new second sentence as follows:

"Individual closures in a bundle of cylinders shall be marked in accordance with 6.2.2.11."

6.2.2.10.3 In (b), in the first sentence replace the phrase in brackets with "cylinder shells and service equipment". In the second sentence after the word "tare" delete the word "mass".

6.2.2.11 Insert a new paragraph 6.2.2.11 as follows:

"**6.2.2.11 Marking of closures for refillable UN pressure receptacles**

For closures the following permanent marks shall be applied clearly and legibly, (e.g. stamped, engraved or etched):

.1 manufacturer's identification mark;

.2 design standard or design standard designation;

.3 date of manufacture (year and month or year and week); and

.4 the identity mark of the inspection body responsible for the initial inspection and test, if applicable.

The valve test pressure shall be marked when it is less than the test pressure which is indicated by the rating of the valve filling connection."

6.2.4 Provisions for aerosol dispensers, small receptacles containing gas (gas cartridges) and fuel cell cartridges containing liquefied flammable gas

Below the heading, add a new paragraph to read as follows:

"6.2.4.1 The internal pressure of aerosol dispensers at 50°C shall not exceed 1.2 MPa (12 bar) when using flammable liquefied gases, 1.32 MPa (13.2 bar) when using non-flammable liquefied gases, and 1.5 MPa (15 bar) when using non-flammable compressed or dissolved gases. In case of a mixture of several gases, the stricter limit shall apply."

The existing paragraph below the heading becomes 6.2.4.2.

Renumber the following sub-paragraphs as follows: 6.2.4.1 to 6.2.4.2.1, 6.2.4.1.1 to 6.2.4.2.1.1, 6.2.4.1.2 to 6.2.4.2.1.2, 6.2.4.2 to 6.2.4.2.2, 6.2.4.2.1 to 6.2.4.2.2.1, 6.2.4.2.2 to 6.2.4.2.2.2, 6.2.4.2.2.1 to 6.2.4.2.2.2.1, 6.2.4.2.2.2 to 6.2.4.2.2.2.2, 6.2.4.2.3 to 6.2.4.2.2.3, 6.2.4.2.3.1 to 6.2.4.2.2.3.1, 6.2.4.2.3.2 to 6.2.4.2.2.3.2 and 6.2.4.3 to 6.2.4.2.3.

In the renumbered 6.2.4.2, replace "6.2.4.1" with "6.2.4.2.1" and "6.2.4.2" with "6.2.4.2.2".

In the renumbered 6.2.4.2.2, replace "6.2.4.2.1" with "6.2.4.2.2.1" and "6.2.4.2.2" with "6.2.4.2.2.2".

In the renumbered 6.2.4.2.3, replace "6.2.4.1" with "6.2.4.2.1" and "6.2.4.2" with "6.2.4.2.2".

Chapter 6.3
Provisions for the construction and testing of packagings for class 6.2 infectious substances of category A

6.3.2 Provisions for packagings

6.3.2.1 In the second sentence, replace the words "successfully to withstand the tests" with the words "to successfully fulfil the provisions".

6.3.2.2 In the note, replace "ISO 16106:2006" with "ISO 16106:2020" and delete the word "Packaging –" in the standard's title.

Chapter 6.4
Provisions for the construction, testing and approval of packages for radioactive material and for the approval of such material

6.4.12 Test procedures and demonstration of compliance

6.4.12.1 In the first sentence, delete "2.7.2.3.1.3, 2.7.2.3.1.4," and after "2.7.2.3.4.2", insert ", 2.7.2.3.4.3".

6.4.12.2 Delete "2.7.2.3.1.3, 2.7.2.3.1.4," and after "2.7.2.3.4.2", insert ", 2.7.2.3.4.3".

6.4.24 Transitional measures for class 7

6.4.24.1 Replace the heading above 6.4.24.1 to read "**Packages not requiring competent authority approval of design under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 and 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material**".

6.4.24.1 In (a), replace the text to read "Packages that meet the requirements of the 1985 or 1985 (as amended 1990) editions of the IAEA Regulations for the Safe Transport of Radioactive Material:"

In (b), replace the text to read "Packages that meet the requirements of the 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 or 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material:"

6.4.24.2 Replace the heading above 6.4.24.2 to read "**Package designs approved under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 and 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material**".

6.4.24.2 In (a), replace the text to read "Packagings that were manufactured to a package design approved by the competent authority under the provisions of the 1985 or 1985 (as amended 1990) editions of the IAEA Regulations for the Safe Transport of Radioactive Material may continue to be used provided that all of the following conditions are met:"

In (b), replace the text to read "Packagings that were manufactured to a package design approved by the competent authority under the provisions of the 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 or 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material may continue to be used provided that all of the following conditions are met:"

6.4.24.3 Replace the words "Editions of IAEA Safety Series No.6" by the words "editions of the IAEA Regulations for the Safe Transport of Radioactive Material".

6.4.24.4 Replace the paragraph to read "No new manufacture of packagings of a package design meeting the provisions of the 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 or 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material shall be permitted to commence after 31 December 2028."

6.4.24.5 In the heading above 6.4.24.5, replace the words "(2009 Edition of IAEA Safety Standard Series No.TS-R-1)" by the words "(2009 edition of the IAEA Regulations for the Safe Transport of Radioactive Material)".

In the paragraph, replace the words "or (iii) of the 2009 Edition of IAEA Regulations" by the words "or (iii) of the 2009 edition of the IAEA Regulations".

6.4.24.6 Replace the heading above 6.4.24.6 to read "**Special form radioactive material approved under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 and 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material**".

Replace the paragraph to read as follows:

> "Special form radioactive material manufactured to a design which had received unilateral approval by the competent authority under the 1985, 1985 (as amended 1990), 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 or 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material may continue to be used when in compliance with the mandatory management system in accordance with the applicable requirements of 1.5.3.1. There shall be no new manufacture of special form radioactive material to a design that had received unilateral approval by the competent authority under the 1985 or 1985 (as amended 1990) editions of the IAEA Regulations for the Safe Transport of Radioactive Material. No new manufacture of special form radioactive material to a design that had received unilateral approval by the competent authority under the 1996, 1996 (revised), 1996 (as amended 2003), 2005, 2009 or 2012 editions of the IAEA Regulations for the Safe Transport of Radioactive Material shall be permitted to commence after 31 December 2025."

Chapter 6.5
Provisions for the construction and testing of intermediate bulk containers (IBCs)

6.5.1 General requirements

6.5.1.1.2 Replace the paragraph to read as follows:

> "6.5.1.1.2 The requirements for IBCs in 6.5.3 are based on IBCs currently in use. In order to take into account progress in science and technology, there is no objection to the use of IBCs having specifications different from those in 6.5.3 and 6.5.5, provided that they are equally effective, acceptable to the competent authority and able to successfully fulfil the requirements described in 6.5.4 and 6.5.6. Methods of inspection and testing other than those described in this Code are acceptable, provided they are equivalent."

6.5.2 Marking

6.5.2.1 Primary marking

6.5.2.1.2 Add a new 6.5.2.1.2 to read as follows:

> "6.5.2.1.2 IBCs manufactured from recycled plastics material as defined in 1.2.1 shall be marked "REC". For rigid IBCs, this mark shall be

placed near the marks prescribed in 6.5.2.1.1. For the inner receptacle of composite IBCs, this mark shall be placed near the marks prescribed in 6.5.2.2.4."

Renumber current 6.5.2.1.2 and 6.5.2.1.3 as 6.5.2.1.3 and 6.5.2.1.4, respectively.

6.5.4 Testing, certification and inspection

6.5.4.1 Quality assurance

6.5.4.1 In the note, replace "*ISO 16106:2006*" by "*ISO 16106:2020*" and delete the word "*Packaging* –" in the standard's title.

6.5.5 Specific provisions for IBCs

6.5.5.3 Specific provisions for rigid plastics IBCs

6.5.5.3.2 After the first sentence, add the following new sentence: "Except for recycled plastics material as defined in 1.2.1, no used material other than production residues or regrind from the same manufacturing process may be used."

6.5.5.3.5 Delete the paragraph.

6.5.5.4.6 After the first sentence, add the following new sentence: "Except for recycled plastics material as defined in 1.2.1, no used material other than production residues or regrind from the same manufacturing process may be used."

6.5.5.4.9 Delete the paragraph.
Renumber current 6.5.5.4.10 to 6.5.5.4.26 as 6.5.5.4.9 to 6.5.5.4.25, respectively.

In renumbered 6.5.5.4.19, replace "6.5.5.4.9" by "6.5.5.4.8".

Chapter 6.6
Provisions for the construction and testing of large packagings

6.6.1 General

6.6.1.2 In the note, replace "ISO 16106:2006" by "ISO 16106:2020" and delete the word "Packaging –" in the standard's title.

6.6.1.3 In the second sentence, replace the words "successfully to withstand the tests" with the words "to successfully fulfil the provisions".

Chapter 6.7
Provisions for the design, construction, inspection and testing of portable tanks and multiple-element gas containers (MEGCs)

6.7 Add a new note at the beginning of chapter 6.7, after the existing note, to read as follows:

"**Note 2**: The provisions of this chapter also apply to portable tanks with shells made of fibre-reinforced plastics (FRP) to the extent indicated in chapter 6.10."

Renumber the existing "**Note**" as "**Note 1**".

6.7.2 Provisions for the design, construction, inspection and testing of portable tanks intended for the transport of substances of class 1 and classes 3 to 9

6.7.2.1 Definitions

In the definition for "portable tank", replace the last sentence to read:

> "Road tank-vehicles, rail tank-wagons, non-metallic tanks (except FRP portable tanks, *see* chapter 6.10), gas cylinders, large receptacles, and intermediate bulk containers (IBCs) are not considered to fall within this definition;"

6.7.3 Provisions for the design, construction, inspection and testing of portable tanks intended for the transport of non-refrigerated liquefied gases of class 2

6.7.3.8 Capacity of relief devices

6.7.3.8.1.1 Delete the footnote. At the end of 6.7.3.8.1.1, add a new note with the text of the footnote, to read as follows:

> "**Note**: This formula applies only to non-refrigerated liquefied gases which have critical temperatures well above the temperature at the accumulating condition. For gases which have critical temperatures near or below the temperature at the accumulating condition, the calculation of the pressure-relief device delivery capacity shall consider further thermodynamic properties of the gas (see, e.g. CGA S-1.2-2003 Pressure Relief Device Standards – Part 2 – Cargo and Portable Tanks for Compressed Gases)."

Chapter 6.10

After chapter 6.9, add a new chapter 6.10 to read as follows:
"

Chapter 6.10
Provisions for the design, construction, inspection and testing of portable tanks with shells made of fibre-reinforced plastics (FRP) materials

6.10.1 Application and general requirements

6.10.1.1 The requirements of section 6.10.2 apply to portable tanks with an FRP shell intended for the transport of dangerous goods of classes or divisions 1, 3, 5.1, 6.1, 6.2, 8 and 9 by all modes of transport. In addition to the requirements of this chapter, unless otherwise specified, the applicable requirements of the International Convention for Safe Containers (CSC) 1972, as amended, shall be fulfilled by any multimodal portable tank with FRP shell which meets the definition of a "container" within the terms of that Convention.

6.10.1.2 The provisions of this chapter do not apply to offshore portable tanks.

6.10.1.3 The provisions of chapter 4.2, and section 6.7.2 apply to FRP portable tank shells except for those concerning the use of metal materials for the construction of a portable tank shell and additional provisions stated in this chapter.

6.10.1.4 In recognition of scientific and technological advances, the technical requirements of this chapter may be varied by alternative arrangements. These alternative arrangements shall offer a level of safety not less than that given by the provisions of this chapter with respect to compatibility with substances transported and the

ability of the FRP portable tank to withstand impact, loading and fire conditions. For international transport, alternative arrangement FRP portable tanks shall be approved by the applicable competent authorities.

6.10.2 Provisions for the design, construction, inspection and testing of FRP portable tanks

6.10.2.1 Definitions

For the purposes of this section, the definitions of 6.7.2.1 apply except for definitions related to metal materials ("Fine grain steel", "Mild steel" and "Reference steel") for the construction of the shell of a portable tank.

Additionally, the following definitions apply to portable tanks with an FRP shell:

External layer means the part of the shell which is directly exposed to the atmosphere.

Fibre-reinforced plastic (FRP) means material consisting of fibrous and/or particulate reinforcement contained within a thermoset or thermoplastic polymer (matrix).

Filament winding means a process for constructing FRP structures in which continuous reinforcements (filament, tape, or other), either previously impregnated with a matrix material or impregnated during winding, are placed over a rotating mandrel. Generally, the shape is a surface of revolution and may include heads.

FRP shell means a closed part of cylindrical shape with an interior volume intended for transport of chemical substances.

FRP tank means a portable tank constructed with an FRP shell and heads, service equipment, safety relief devices and other installed equipment.

Glass transition temperature (Tg) means a characteristic value of the temperature range over which the glass transition takes place.

Hand layup means a process for moulding reinforced plastics in which reinforcement and resin are placed on a mould.

Liner means a layer on the inner surface of an FRP shell preventing contact with the dangerous goods being transported.

Mat means a fibre reinforcement made of random, chopped or twisted fibres bonded together as sheets of various length and thickness.

Parallel shell sample means an FRP specimen, which must be representative of the shell, constructed in parallel to the shell construction if it is not possible to use cut-outs from the shell itself. The parallel shell sample may be flat or curved.

Representative sample means a sample cut out from the shell.

Resin infusion means an FRP construction method by which dry reinforcement is placed into a matched mould, single sided mould with vacuum bag, or otherwise, and liquid resin is supplied to the part through the use of external applied pressure at the inlet and/or application of full or partial vacuum pressure at the vent.

Structural layer means FRP layers of a shell required to sustain the design loads.

Veil means a thin mat with high absorbency used in FRP product plies where polymeric matrix surplus fraction content is required (surface evenness, chemical resistance, leakage-proof, etc.).

6.10.2.2 General design and construction provisions

6.10.2.2.1 The provisions of 6.7.1 and 6.7.2.2 apply to FRP portable tanks. For areas of the shell that are made from FRP, the following provisions of chapter 6.7 are exempt: 6.7.2.2.1, 6.7.2.2.9.1, 6.7.2.2.13 and 6.7.2.2.14. Shells shall be designed and constructed in accordance with the requirements of a pressure vessel code, applicable to FRP materials, recognized by the competent authority.

In addition, the following requirements apply.

6.10.2.2.2 *Manufacturer's quality system*

6.10.2.2.2.1 The quality system shall contain all the elements, requirements and provisions adopted by the manufacturer. It shall be documented in a systematic and orderly manner in the form of written policies, procedures and instructions.

6.10.2.2.2.2 The contents shall in particular include adequate descriptions of:

.1 the organizational structure and responsibilities of personnel with regard to design and product quality;

.2 the design control and design verification techniques, processes, and procedures that will be used when designing the portable tanks;

.3 the relevant manufacturing, quality control, quality assurance and process operation instructions that will be used;

.4 quality records, such as inspection reports, test data and calibration data;

.5 management reviews to ensure the effective operation of the quality system arising from the audits in accordance with 6.10.2.2.2.4;

.6 the process describing how customer requirements are met;

.7 the process for control of documents and their revision;

.8 the means for control of non-conforming portable tanks, purchased components, in-process and final materials; and

.9 training programmes and qualification procedures for relevant personnel.

6.10.2.2.2.3 Under the quality system, the following minimum requirements shall be met for each FRP portable tank manufactured:

.1 use of an inspection and test plan (ITP);

.2 visual inspections;

.3 verification of fibre orientation and mass fraction by means of documented control process;

.4 verification of fibre and resin quality and characteristics by means of certificates or other documentation;

.5 verification of liner quality and characteristics by means of certificates or other documentation;

.6 verification of whichever is applicable of formed thermoplastic resin characteristic or degree of cure of thermoset resin, by direct or indirect means (e.g. Barcol test or differential scanning calorimetry) to be determined in accordance with 6.10.2.7.1.2.8, or by creep testing of a representative sample or parallel shell specimen in accordance with 6.10.2.7.1.2.5 for a period of 100 hours;

.7 documentation of whichever is applicable of thermoplastic resin forming processes or thermoset resin cure and post-cure processes; and

.8 retention and archiving of shell samples for future inspection and shell verification (e.g. from manhole cut-out) for a period of five years.

6.10.2.2.2.4 *Audit of the quality system*

The quality system shall be initially assessed to determine whether it meets the provisions in 6.10.2.2.2.1 to 6.10.2.2.2.3 to the satisfaction of the competent authority.

The manufacturer shall be notified of the results of the audit. The notification shall contain the conclusions of the audit and any corrective actions required.

Periodic audits shall be carried out, to the satisfaction of the competent authority, to ensure that the manufacturer maintains and applies the quality system. Reports of the periodic audits shall be provided to the manufacturer.

6.10.2.2.2.5 *Maintenance of the quality system*

The manufacturer shall maintain the quality system as approved in order that it remains adequate and efficient.

The manufacturer shall notify the competent authority that approved the quality system of any intended changes. The proposed changes shall be evaluated to determine whether the amended quality system will still satisfy the provisions in 6.10.2.2.2.1 to 6.10.2.2.2.3.

6.10.2.2.3 *FRP Shells*

6.10.2.2.3.1 FRP shells shall have a secure connection with structural elements of the portable tank frame. FRP shell supports and attachments to the frame shell shall cause no local stress concentrations exceeding the design allowables of the shell structure in accordance with the provisions stated in this chapter for all operating and test conditions.

6.10.2.2.3.2 Shells shall be made of suitable materials, capable of operating within a minimum design temperature range of -40°C to +50°C, unless temperature ranges are specified for specific more severe climatic or operating conditions (e.g. heating elements), by the competent authority of the country where the transport operation is being performed.

6.10.2.2.3.3 If a heating system is installed, it shall comply with 6.7.2.5.12 to 6.7.2.5.15 and with the following provisions:

.1 the maximum operating temperature of the heating elements integrated or connected to the shell shall not exceed the maximum design temperature of the tank;

.2 the heating elements shall be designed, controlled, and utilized so that the temperature of the carried substance cannot exceed the maximum design temperature of the tank or a value at which the internal pressure exceeds MAWP; and

.3 structures of the tank and its heating elements shall allow examination of the shell with respect to possible effects of overheating.

6.10.2.2.3.4 Shells shall consist of the following elements:

- liner;
- structural layer; and
- external layer.

Note: The elements may be combined if all applicable functional criteria are met.

6.10.2.2.3.5 The liner is the inner element of the shell designed as the primary barrier to provide for the long-term chemical resistance in relation to the substances to be carried, to prevent any dangerous reaction with the contents or the formation of dangerous compounds and any substantial weakening of the structural layer owing to the diffusion of products through the internal liner. Chemical compatibility shall be verified in accordance with 6.10.2.7.1.3.

The liner may be an FRP liner or a thermoplastic liner.

6.10.2.2.3.6 FRP liners shall consist of the following two components:

.1 Surface layer ("gel-coat"): adequate resin rich surface layer, reinforced with a veil, compatible with the resin and contents. This layer shall have a maximum fibre mass content of 30% and have a minimum thickness of 0.25 mm and a maximum thickness of 0.60 mm.

.2 Strengthening layer(s): layer or several layers with a minimum thickness of 2 mm, containing a minimum of 900 g/m² of glass mat or chopped fibres with a mass content in glass of not less than 30% unless equivalent safety is demonstrated for a lower glass content.

6.10.2.2.3.7 If the liner consists of thermoplastic sheets, they shall be welded together in the required shape, using a qualified welding procedure and personnel. Welded liners shall have a layer of electrically conductive media placed

against the non-liquid contact surface of the welds to facilitate spark testing. Durable bonding between liners and the structural layer shall be achieved by the use of an appropriate method.

6.10.2.2.3.8 The structural layer shall be designed to withstand the design loads according to 6.7.2.2.12, 6.10.2.2.3.1, 6.10.2.3.2, 6.10.2.3.4 and 6.10.2.3.6.

6.10.2.2.3.9 The external layer of resin or paint shall provide adequate protection of the structural layers of the tank from environmental and service exposure, including to UV radiation and salt fog, and occasional splash exposure to cargoes.

6.10.2.2.3.10 *Resins*

The processing of the resin mixture shall be carried out in compliance with the recommendations of the supplier. These resins can be:

- unsaturated polyester resins;
- vinyl ester resins;
- epoxy resins;
- phenolic resins; and
- thermoplastic resins.

The resin heat distortion temperature (HDT), determined in accordance with 6.10.2.7.1.1 shall be at least 20°C higher than the maximum design temperature of the shell as defined in 6.10.2.2.3.2, but shall in any case not be lower than 70°C.

6.10.2.2.3.11 *Reinforcement material*

The reinforcement material of the structural layers shall be selected such that they meet the requirements of the structural layer.

For the internal surface liner glass fibres of at a minimum type C or ECR according to ISO 2078:1993 + Amd 1:2015 shall be used. Thermoplastic veils may only be used for the internal liner when their compatibility with the intended contents has been demonstrated.

6.10.2.2.3.12 *Additives*

Additives necessary for the treatment of the resin, such as catalysts, accelerators, hardeners and thixotropic substances as well as materials used to improve the tank, such as fillers, colours, pigments etc. shall not cause weakening of the material, taking into account lifetime and temperature expectancy of the design.

6.10.2.2.3.13 FRP shells, their attachments and their service and structural equipment shall be designed to withstand the loads mentioned in 6.7.2.2.12, 6.10.2.2.3, 6.10.2.3.2, 6.10.2.3.4 and 6.10.2.3.6 without loss of contents (other than quantities of gas escaping through any degassing vents) during the design lifetime.

6.10.2.2.3.14 *Special provisions for the carriage of substances with a flashpoint of not more than 60°C*

6.10.2.2.3.14.1 FRP tanks used for the carriage of flammable liquids of class 3 with a flashpoint of not more than 60°C shall be constructed to ensure the elimination of static electricity from the various component parts to avoid the accumulation of dangerous charges.

6.10.2.2.3.14.2 The electrical surface resistance of the inside and outside of the shell as established by measurements shall not be higher than 10^9 Ω. This may be achieved by the use of additives in the resin or interlaminate conducting sheets, such as metal or carbon network.

6.10.2.2.3.14.3 The discharge resistance to earth as established by measurements shall not be higher than 10^7 Ω.

6.10.2.2.3.14.4 All components of the shell shall be electrically connected to each other and to the metal parts of the service and structural equipment of the tank and to the vehicle. The electrical resistance between components and equipment in contact with each other shall not exceed 10 Ω.

6.10.2.2.3.14.5 The electrical surface-resistance and discharge resistance shall be measured initially on each manufactured tank or a specimen of the shell in accordance with the procedure recognized by the competent authority. In the event of damage to the shell, requiring repair, the electrical resistance shall be re-measured.

6.10.2.2.3.15 The tank shall be designed to withstand, without significant leakage, the effects of a full engulfment in fire for 30 minutes as specified by the test requirements in 6.10.2.7.1.5. Testing may be waived with the agreement of the competent authority, where sufficient proof can be provided by tests with comparable tank designs.

6.10.2.2.3.16 *Construction process for FRP shells*

6.10.2.2.3.16.1 Filament winding, hand layup, resin infusion or other appropriate composite production processes shall be used for construction of FRP shells.

6.10.2.2.3.16.2 The weight of the fibre reinforcement shall conform to that set forth in the procedure specification with a tolerance of +10% and −0%. One or more of the fibre types specified in 6.10.2.2.3.11 and in the procedure specification shall be used for reinforcement of shells.

6.10.2.2.3.16.3 The resin system shall be one of the resin systems specified in 6.10.2.2.3.10. No filler, pigment, or dye additions shall be used which will interfere with the natural colour of the resin except as permitted by the procedure specification.

6.10.2.3 Design criteria

6.10.2.3.1 FRP shells shall be of a design capable of being stress-analysed mathematically or experimentally by resistance strain gauges, or by other methods approved by the competent authority.

6.10.2.3.2 FRP shells shall be designed and constructed to withstand the test pressure. Specific provisions are laid down for certain substances in the applicable portable tank instruction indicated in column 13 of the Dangerous Goods List and described in 4.2.5, or by a portable tank special provision indicated in column 14 of the

Dangerous Goods List and described in 4.2.5.3. The minimum wall thickness of the FRP shell shall not be less than that specified in 6.10.2.4.

6.10.2.3.3 At the specified test pressure the maximum tensile relative deformation measured in mm/mm in the shell shall not result in the formation of microcracks, and therefore not be greater than the first measured point of elongation based fracture or damage of the resin, measured during tensile tests prescribed under 6.10.2.7.1.2.3.

6.10.2.3.4 For internal test pressure, external design pressure specified in 6.7.2.2.10, static loads specified in 6.7.2.2.12 and static gravity loads caused by the contents with the maximum density specified for the design and at maximum filling degree, failure criteria (FC) in the longitudinal direction, circumferential direction, and any other in-plane direction of the composite layup shall not exceed the following value:

$$FC \leq \frac{1}{K}$$

where:

$$K = K_0 \times K_1 \times K_2 \times K_3 \times K_4 \times K_5$$

where:

K shall have a minimum value of 4.

$\boldsymbol{K_0}$ is a strength factor. For the general design the value for $\boldsymbol{K_0}$ shall be equal to or more than 1.5. The value of $\boldsymbol{K_0}$ shall be multiplied by a factor of two, unless the shell is provided with protection against damage consisting of a complete metal skeleton including longitudinal and transverse structural members.

$\boldsymbol{K_1}$ is a factor related to the deterioration in the material properties due to creep and ageing. It shall be determined by the formula:

$$K_1 = \frac{1}{\alpha\beta}$$

where "α" is the creep factor and "β" is the ageing factor determined in accordance with 6.10.2.7.1.2.5 and .6, respectively. When used in calculation, factors α and β shall be between 0 and 1.

Alternatively, a conservative value of $\boldsymbol{K_1}$ = 2 may be applied for the purpose of undertaking the numerical validation exercise in 6.10.2.3.4 (this does not remove the need to perform testing to determine α and β).

$\boldsymbol{K_2}$ is a factor related to the service temperature and the thermal properties of the resin, determined by the following equation, with a minimum value of 1: $\boldsymbol{K_2}$ = 1.25 - 0.0125 (HDT - 70) where HDT is the heat distortion temperature of the resin, in °C.

$\boldsymbol{K_3}$ is a factor related to the fatigue of the material; the value of $\boldsymbol{K_3}$ = 1.75 shall be used unless otherwise agreed with the

competent authority. For the dynamic design as outlined in 6.7.2.2.12 the value of K_3 = 1.1 shall be used.

K_4 is a factor related to resin curing and has the following values:

1.0 where curing is carried out in accordance with an approved and documented process, and the quality system described under 6.10.2.2.2 includes verification of degree of cure for each FRP portable tank using a direct measurement approach, such as differential scanning calorimetry (DSC) determined via ISO 11357- 2:2016, as per 6.10.2.7.1.2.9.

1.1 where thermoplastic resin forming or thermoset resin curing is carried out in accordance with an approved and documented process, and the quality system described under 6.10.2.2.2 includes verification of whichever is applicable formed thermoplastic resin characteristics or degree of cure of thermoset resin, for each FRP portable tank using an indirect measurement approach as per 6.10.2.7.1.2.8, such as Barcol testing via ASTM D2583:2013-03 or EN 59:2016, HDT via ISO 75-1:2013, thermo-mechanical analysis (TMA) via ISO 11359-1:2014, or dynamic thermo-mechanical analysis (DMA) via ISO 6721- 11:2019.

1.5 in other cases.

K_5 is a factor related to the portable tank instruction in 4.2.5.2.6:

1.0 for T1 to T19.

1.33 for T20.

1.67 for T21 to T22.

A design validation exercise using numerical analysis and a suitable composite failure criterion is to be undertaken to verify that the plies in the shell are below the allowables. Suitable composite failure criteria include, but are not limited to, Tsai-Wu, Tsai-Hill, Hashin, Yamada-Sun, Strain Invariant Failure Theory, Maximum Strain or Maximum Stress. Other relations for the strength criteria are allowed upon agreement with the competent authority. The method and results of this design validation exercise are to be submitted to the competent authority.

The allowables are to be determined using experiments to derive parameters required by the chosen failure criteria combined with factor of safety K, the strength values measured as per 6.10.2.7.1.2.3, and the maximum elongation strain criteria prescribed in 6.10.2.3.5. The analysis of joints is to be undertaken in accordance with the allowables determined in 6.10.2.3.7 and the strength values measured as per 6.10.2.7.1.2.7. Buckling is to be considered in accordance with 6.10.2.3.6.

Design of openings and metallic inclusions is to be considered in accordance with 6.10.2.3.8.

6.10.2.3.5 At any of the stresses as defined in 6.7.2.2.12 and 6.10.2.3.4, the resulting elongation in any direction shall not exceed the value indicated in the following table or one tenth of the elongation at fracture of the resin determined by ISO 527-2:2012, whichever is lower.

Examples of known limits are presented in the table below.

Type of resin	**Maximum strain in tension (%)**
Unsaturated polyester or phenolic	0.2
Vinylester	0.25
Epoxy	0.3
Thermoplastic	See 6.10.2.3.3

6.10.2.3.6 For the external design pressure the minimum safety factor for linear buckling analysis of the shell shall be as defined in the applicable pressure vessel code but not less than three.

6.10.2.3.7 The adhesive bondlines and/or overlay laminates used in the joints, including the end joints, connection between the equipment and shell, the joints of the surge plates and the partitions with the shell shall be capable of withstanding the loads of 6.7.2.2.12, 6.10.2.2.3.1, 6.10.2.3.2, 6.10.2.3.4 and 6.10.2.3.6. In order to avoid concentrations of stresses in the overlay lamination, the applied taper shall not be steeper than 1:6. The shear strength between the overlay laminate and the tank components to which it is bonded shall not be less than:

$$\tau = \gamma \frac{Q}{l} \leq \frac{\tau_R}{K}$$

where:

τ_R is the interlaminar shear strength according to ISO 14130:1997 and Cor 1:2003;

Q is the load per unit width of the interconnection;

K is the safety factor determined as per 6.10.2.3.4;

l is the length of the overlay laminate;

γ is the notch factor relating average joint stress to peak joint stress at failure initiation location.

Other calculation methods for the joints are allowed following approval with the competent authority.

6.10.2.3.8 Metallic flanges and their closures are permitted to be used in FRP shells, under design provisions of 6.7.2. Openings in the FRP shell shall be reinforced to provide at least the same safety factors against the static and dynamic stresses as specified in 6.7.2.2.12, 6.10.2.3.2, 6.10.2.3.4 and 6.10.2.3.6 as that for the shell

itself. The number of openings shall be minimized. The axis ratio of oval-shaped openings shall be not more than 2.

If metallic flanges or componentry are integrated into the FRP shell using bonding, then the characterization method stated in 6.10.2.3.7 shall apply to the joint between the metal and FRP. If the metallic flanges or componentry are fixed in an alternative fashion, e.g. threaded fastener connections, then the appropriate provisions of the relevant pressure vessel standard shall apply.

6.10.2.3.9 Check calculations of the strength of the shell shall be performed by finite element method simulating the shell layups, joints within FRP shell, joints between the FRP shell and the container frame, and openings. Treatment of singularities shall be undertaken using an appropriate method according to the applicable pressure vessel code.

6.10.2.4 Minimum wall thickness of the shell

6.10.2.4.1 Minimum thickness of the FRP shell shall be confirmed by check calculations of the strength of the shell considering strength provisions given in 6.10.2.3.4.

6.10.2.4.2 Minimum thickness of the FRP shell structural layers shall be determined in accordance with 6.10.2.3.4; however, in any case the minimum thickness of the structural layers shall be at least 3 mm.

6.10.2.5 Equipment components for portable tanks with FRP shell

Service equipment, bottom openings, pressure relief devices, gauging devices, supports, frameworks, lifting and tie-down attachments of portable tanks shall meet the provisions of 6.7.2.5 to 6.7.2.17. If any other metallic features are required to be integrated into the FRP shell, then the provisions of 6.10.2.3.8 shall apply.

6.10.2.6 Design approval

6.10.2.6.1 Design approval of FRP portable tanks shall be as per 6.7.2.18 provisions. The following additional provisions apply to FRP portable tanks.

6.10.2.6.2 The prototype test report for the purpose of the design approval shall additionally include the following:

.1 results of the material tests used for FRP shell fabrication in accordance with 6.10.2.7.1 provisions;

.2 results of the ball drop test in accordance with the provisions of 6.10.2.7.1.4; and

.3 results of the fire resistance test in accordance with the provisions of 6.10.2.7.1.5.

6.10.2.6.3 A service life inspection programme shall be established, which shall be a part of the operation manual, to monitor the condition of the tank at periodic inspections. The inspection programme shall focus on the critical stress locations identified in the design analysis performed under 6.10.2.3.4. The inspection method shall take into account the potential damage mode at the critical stress location (e.g. tensile stress or interlaminate stress). The inspection shall be a combination of visual and non-destructive testing (e.g. acoustic emissions, ultrasonic evaluation, thermographic). For heating elements, the service life inspection programme shall

allow an examination of the shell or its representative locations to take into account the effects of overheating.

6.10.2.6.4 A representative prototype tank shall be subjected to tests as specified below. For this purpose, service equipment may be replaced by other items if necessary.

6.10.2.6.4.1 The prototype shall be inspected for compliance with the design type specification. This shall include an internal and external inspection and measurement of the main dimensions.

6.10.2.6.4.2 The prototype, equipped with strain gauges at all locations of high strain, as identified by the design validation exercise in accordance with 6.10.2.3.4, shall be subjected to the following loads and the strain shall be recorded:

.1 Filled with water to the maximum filling degree. The measuring results shall be used to calibrate the design calculations according to 6.10.2.3.4.

.2 Filled with water to the maximum filling degree and subjected to static loads in all three directions mounted by the base corner castings without additional mass applied external to the shell. For comparison with the design calculation according to 6.10.2.3.4 the strains recorded shall be extrapolated in relation to the quotient of the accelerations required in 6.7.2.2.12 and measured.

.3 Filled with water and subjected to the specified test pressure. Under this load, the shell shall exhibit no visual damage or leakage. The stress corresponding to the measured strain level shall not exceed the minimum factor of safety calculated in 6.10.2.3.4 under any of these loading conditions.

6.10.2.7 Additional provisions applicable to FRP portable tanks

6.10.2.7.1 *Material testing*

6.10.2.7.1.1 *Resins*

Resin tensile elongation shall be determined in accordance with ISO 527- 2:2012. The heat distortion temperature (HDT) of the resin shall be determined in accordance with ISO 75-1:2013.

6.10.2.7.1.2 *Shell*

Prior to testing, all coatings shall be removed from the samples. If shell samples are not possible then parallel shell samples may be used. The tests shall cover:

.1 Thickness of the laminates of the central shell wall and the ends.

.2 Mass content and composition of composite reinforcement by ISO 1172:1996 or ISO 14127:2008, as well as orientation and arrangement of reinforcement layers.

.3 Tensile strength, elongation at fracture and modulus of elasticity according to ISO 527-4:1997 or ISO 527-5:2009 for the

circumferential and longitudinal directions of the shell. For areas of the FRP shell, tests shall be performed on representative laminates in accordance with ISO 527-4:1997 or ISO 527-5:2009, to permit evaluation of the suitability of safety factor (K). A minimum of six specimens per measure of tensile strength shall be used, and the tensile strength shall be taken as the average minus two standard deviations.

.4 Bending deflection and strength shall be established by the three-point or four-point bending test according to ISO 14125:1998 + Amd 1:2011 using a sample with a minimum width of 50 mm and a support distance of at least 20 times the wall thickness. A minimum of five specimens shall be used.

.5 Creep factor α shall be determined by taking the average result of at least two specimens with the configuration described in .4, subject to creep in three-point or four-point bending, at the maximum design temperature nominated under 6.10.2.2.4, for a period of 1,000 hours. The following test is to be undertaken for each specimen:

.1 Place specimen into bending apparatus, unloaded, in oven set to maximum design temperature and allow to acclimatize for a period of not less than 60 minutes.

.2 Load specimen bending in accordance with ISO 14125:1998 + Amd 1:2011 at flexural stress equal to the strength determined in .4 divided by four. Maintain mechanical load at maximum design temperature without interruption for not less than 1,000 hours;

.3 Measure the initial deflection six minutes after full load application in sub-paragraph .2 above. Specimen shall remain loaded in test rig.

.4 Measure the final deflection 1,000 hours after full load application in sub-paragraph .2 above.

.5 Calculate the creep factor α by dividing the initial deflection from sub-paragraph .3 above by the final deflection from sub-paragraph .4 above.

.6 Ageing factor β shall be determined by taking the average result of at least two specimens with the configuration described in .4, subject to loading in static three-point or four-point bending, in conjunction with immersion in water at the maximum design temperature nominated under 6.10.2.2.4 for a period of 1,000 hours. The following test is to be undertaken for each specimen:

.1 Prior to testing or conditioning, specimens shall be dried in an oven at 80°C for a period of 24 hours.

.2 The specimen shall be loaded in three-point or four-point bending at ambient temperature, in accordance with ISO 14125:1998 + Amd 1:2011, at the flexural stress level

equal to the strength determined in .4 divided by four. Measure the initial deflection six minutes after full load application. Remove specimen from test rig.

.3 Immerse unloaded specimen in water at the maximum design temperature for a period of not less than 1,000 hours without interruption to the water conditioning period. When conditioning period has lapsed, remove specimens, keep damp at ambient temperature, and complete sub-paragraph .4 below within three days.

.4 The specimen shall be subject to a second round of static loading, in a manner identical to sub-paragraph .2 above. Measure the final deflection six minutes after full load application. Remove specimen from test rig.

.5 Calculate the ageing factor β by dividing the initial deflection from sub-paragraph .2 above by the final deflection from sub-paragraph .4.

.7 The interlaminar shear strength of the joints shall be measured by testing representative samples in accordance with ISO 14130:1997.

.8 The efficiency of whichever is applicable of thermoplastic resin forming characteristics or thermoset resin cure and post-cure processes for laminates are to be determined using one or more of the following methods:

.1 direct measurement formed thermoplastic resin characteristics or thermoset resin degree of cure: glass transition temperature (Tg) or melting temperature (Tm) determined using differential scanning calorimetry (DSC) via ISO 11357-2:2016; or

.2 indirect measurement of formed thermoplastic resin or thermoset resin degree of cure:

- HDT via ISO 75-1:2013;
- Tg or Tm using thermo-mechanical analysis (TMA) via ISO 11359-1:2014;
- dynamic thermo-mechanical analysis (DMA) via ISO 6721-11:2019;
- Barcol testing via ASTM D2583:2013-03 or EN 59:2016.

6.10.2.7.1.3 The chemical compatibility of the liner and chemical contact surfaces of service equipment with the substances to be carried shall be demonstrated by one of the following methods. This demonstration shall account for all aspects of the compatibility of the materials of the shell and its equipment with the substances to be carried, including chemical deterioration of the shell, initiation of critical reactions of the contents and dangerous reactions between both.

.1 In order to establish any deterioration of the shell, representative samples taken from the shell, including any internal liners with welds, shall be subjected to the chemical compatibility test according to EN 977:1997 for a period of 1,000 hours at 50°C or the maximum temperature at which a particular substance is approved for transport. Compared with a virgin sample, the loss of strength and elasticity modulus measured by the bending test according to EN 978:1997 shall not exceed 25%. Cracks, bubbles, pitting effects as well as separation of layers and liners and roughness shall not be acceptable.

.2 Certified and documented data of positive experiences on the compatibility of filling substances in question with the materials of the shell with which they come into contact at given temperatures, times and other relevant service conditions.

.3 Technical data published in relevant literature, standards or other sources, acceptable to the competent authority.

.4 Upon agreement with the competent authority other methods of chemical compatibility verification may be used.

6.10.2.7.1.4 *Ball drop test as per EN 976-1:1997*

The prototype shall be subjected to the ball drop test according to EN 976-1:1997, No. 6.6. No visible damage inside or outside the tank shall occur.

6.10.2.7.1.5 *Fire resistance test*

6.10.2.7.1.5.1 A representative prototype tank with its service and structural equipment in place and filled to 80% of its maximum capacity with water, shall be exposed to a full engulfment in fire for 30 minutes, caused by an open heating oil pool fire or any other type of fire with the same effect. The fire shall be equivalent to a theoretical fire with a flame temperature of 800°C, emissivity of 0.9 and to the tank a heat transfer coefficient of 10 W/(m²K) and surface absorptivity of 0.8. A minimum net heat flux of 75 kW/m² shall be calibrated according to ISO 21843:2018. The dimensions of the pool shall exceed those of the tank by at least 50 cm to each side and the distance between fuel level and tank shall be between 50 cm and 80 cm. The rest of the tank below liquid level, including openings and closures, shall remain leakproof except for drips.

6.10.2.8 Inspection and testing

6.10.2.8.1 Inspection and testing of portable FRP tanks shall be carried out as per provisions of 6.7.2.19. In addition, welded thermoplastic liners shall be spark tested under a suitable standard, after pressure tests performed in accordance with the periodic inspections specified in 6.7.2.19.4.

6.10.2.8.2 In addition, the initial and periodic inspections shall follow the service life inspection programme and any associated inspection methods per 6.10.2.6.3.

6.10.2.8.3 The initial inspection and test shall verify that construction of the tank is made in accordance with the quality system required by 6.10.2.2.2.

6.10.2.8.4 Additionally, during inspection of the shell the position of the areas heated by heating elements shall be indicated or marked, be available on design drawings or shall be made visible by a suitable technique (e.g. infrared). Examination of the shell shall take into account the effects of overheating, corrosion, erosion, overpressure and mechanical overloading.

6.10.2.9 Retention of samples

Shell samples (e.g. from manhole cut-out) for each tank manufactured shall be maintained for future inspection and shell verification for a period of five years from the date of the initial inspection and test and until successful completion of the required five-year periodic inspection.

6.10.2.10 Marking

6.10.2.10.1 The requirements of 6.7.2.20.1 apply to portable tanks with an FRP shell except those of 6.7.2.20.1 (f) (ii).

6.10.2.10.2 The information required in 6.7.2.20.1 (f) (i) shall be "Shell structural material: Fibre-reinforced plastic", the reinforcement fibre e.g. "Reinforcement: E-glass", and resin e.g. "Resin: Vinyl Ester".

6.10.2.10.3 Requirements of provision 6.7.2.20.2 apply to portable tank with an FRP shell."

PART 7
PROVISIONS CONCERNING TRANSPORT OPERATIONS

Chapter 7.2
General segregation provisions

7.2.5 Segregation groups

7.2.5.2 In the table, delete the entry for "SGG1a".

7.2.7 Segregation of goods of class 1

7.2.7.1.4 *Permitted mixed stowage for goods of class 1*

Under the table, in note 1, with regard to the text in brackets, delete the words "and those requiring special stowage".

7.2.8 Segregation codes

In the table, delete the entry for "SG75".

Chapter 7.3
Consigning operations concerning the packing and use of cargo transport units (CTUs) and related provisions

7.3.7 Cargo transport units under temperature control

7.3.7.2 General provisions

7.3.7.2.3.1 Replace the words "the word "STABILIZED"" with the words "the words "TEMPERATURE CONTROLLED"".

7.3.7.2.3.2 Delete the footnote.

CHAPTER 7.6
STOWAGE AND SEGREGATION ON GENERAL CARGO SHIPS

7.6.2 Stowage and handling provisions

7.6.2.7 Provisions for classes 4.1, 4.2 and 4.3

7.6.2.7.2.1 Replace the word "packagings" with the word "packages".

Chapter 7.9
Exemptions, approvals and certificates

7.9.3 Contact information for the main designated national competent authorities

Replace the text in paragraph to read:

"Contact information for the main designated national competent authorities concerned is reproduced in this paragraph and obtained from the GISIS Module on Contact Points.*"

Replace the existing footnotes with the following new footnote:

"* Member States are invited to access GISIS in order to update their corresponding main designated national competent authorities' contact information through their GISIS Account Managers. Public access to GISIS Module of Contact Points, in order to electronically obtain the most updated contact information, is provided through the following link: https://gisis.imo.org/Public/."

INDEX

Delete the entry for "Iron powder, *see*".

In the entries for "Bromoethane, *see*" and "ETHYL BROMIDE", in column "Class", replace "6.1" with "3".

Amend the entry for "EXTRACTS, AROMATIC, LIQUID" to read as follows:

Substance, material or article	MP	Class	UN. No.
Extracts, aromatic, liquid, *see*		3	1197

Amend the entry for "EXTRACTS, FLAVOURING, LIQUID" to read as follows:

Substance, material or article	MP	Class	UN. No.
Extracts, flavouring, liquid, *see*		3	1197

Add the following new entries in alphabetical order:

"

Substance, material or article	MP	Class	UN. No.
1-butylene, *see*		2.1	1012
cis-2-butylene, *see*		2.1	1012
trans-2-butylene, *see*		2.1	1012
COBALT DIHYDROXIDE POWDER, containing not less than 10% respirable particles	**P**	6.1	3550
EXTRACTS, LIQUID, for flavour or aroma		3	1197

"

***

ANNEX 26

RESOLUTION MSC.518(105)
(adopted on 28 April 2022)

MODEL REGULATIONS ON DOMESTIC FERRY SAFETY

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

BEING DEEPLY CONCERNED with the high number of lives lost through domestic ferry accidents around the world,

RECOGNIZING that issues concerning domestic ferry safety are international and collective in nature which require accelerated measures to fill a critical gap in the regulatory framework concerning domestic ferries,

RECOGNIZING ALSO the need to provide a set of recommendatory framework model regulations for consideration by Member States to incorporate relevant provisions, as appropriate, into their national legislation,

ACKNOWLEDGING that the Model Regulations on Domestic Ferry Safety are to be used on a voluntary basis to improve domestic ferry safety,

HAVING APPROVED, at its 104th session, the Model Regulations on Domestic Ferry Safety,

1 ADOPTS the Model Regulations on Domestic Ferry Safety, the text of which is set out in the annex to the present resolution;

2 ENCOURAGES Member States to use the recommendatory Model Regulations on Domestic Ferry Safety based on risk analysis, in whole or in part, as a basis for:

.1 developing national legislation governing domestic ferry safety,

.2 bilateral or multilateral agreements governing the safe operation of domestic ferries in their respective waters;

3 URGES Member States and other stakeholders to take accelerated measures towards improving domestic ferry safety through, inter alia, the domestication and implementation of Model Regulations on Domestic Ferry Safety;

4 REQUESTS Member States to inform the Secretary-General upon the domestication and implementation of the Model Regulations on Domestic Ferry Safety;

5 ALSO REQUESTS the Secretary-General to bring this resolution and its annex to the attention of all Member States and other stakeholders.

ANNEX

MODEL REGULATIONS ON DOMESTIC FERRY SAFETY

PREAMBLE

1 These model regulations (a) provide framework provisions on domestic ferry safety for incorporation into national law; (b) do not promulgate provisions on facilitation, security, and pollution; (c) are drafted in a way to enable easy translation and incorporation into national law; and (d) may serve as a basis for intergovernmental agreements, whether multilateral, bilateral or regional.

2 The incorporation of model regulations into national law by interested countries is purely voluntary and recommendatory and it is the prerogative of those countries to decide on their incorporation in their national law.

3 The modality through which these regulations are to be implemented is left to the competent authority, thereby encouraging, inter alia, indigenous solutions which may be low-cost yet fit for purpose, taking into account developments in the Organization. The competent authority may delegate a responsibility to a recognized organization, an equivalent domestic entity or a nominated surveyor.

4 A domestic ferry when in compliance with these regulations may move from the domestic waters of one country directly to another subject to bilateral or multilateral agreement(s) between the countries concerned.

ARTICLE 1
Application

These regulations shall apply to domestic ferries which operate in domestic waters as identified by the competent authority and as shown in annex 1.

ARTICLE 2
General

1 These regulations shall be complied with by all entities associated with the construction, modification, conversion, management and operational safety of domestic ferry, and education and training of crew on board and shore personnel.

2 The competent authority may take measures to protect, preserve and promote safe and secure ways of development and construction of craft and means of transport in domestic waters.

Use of terminology

The words "shall", "should" and "may" when used in these regulations mean "mandatory", "recommendatory" and "optional", respectively.

Definitions

For the purposes of these regulations:

Certificated officer means an officer holding a valid certificate of competency issued by an accredited institution and recognized by the competent authority.

Chief engineer means a certificated officer in possession of a certificate of competency corresponding to the rank and responsible for the efficient running and maintenance of all machinery and electrical equipment on the domestic ferry.

Competent authority means a government entity responsible for the implementation of these regulations.

Crew means any person including the master working on or operating the domestic ferry.

Dangerous goods mean any goods including personal belongings covered by the provisions of the International Maritime Dangerous Goods Code.

Deadweight tonnage means the maximum carrying capacity, in tonnes, of the domestic ferry.

Displacement means the mass of water, in tonnes, displaced at any particular draught.

Domestic ferry means a craft of any type and construction, using any means of propulsion, intended for the carriage of passengers and their belongings, including accompanied or unaccompanied freight units, over water only within domestic waters and certified as such by the competent authority.

Domestic waters mean waters in which domestic ferries may operate, clearly identified, designated and promulgated as such by the competent authority.

Draught means the vertical distance from the keel amidships to the waterline.

Exception means any provision enacted by the competent authority through a decree which gives blanket relief to certain types of domestic ferries from compliance with these regulations.

Exemption means any provision enacted by the competent authority in writing which gives relief from any obligation or liability imposed by these regulations.

Gross tonnage means the measure of the overall size of a domestic ferry determined in accordance with the provisions of the present International Convention on Tonnage Measurement of Ships.

High-speed domestic ferry means a high-speed craft capable of carrying passengers and as defined in SOLAS, chapter X.

Marine casualty means an event, or a sequence of events, that has resulted in any of the following which has occurred directly in connection with the operations of a domestic ferry:

.1 the death of, or serious injury to, a person;

.2 the loss of a person from a domestic ferry;

.3 the loss, presumed loss or abandonment of a domestic ferry;

.4 material damage to a domestic ferry;

.5 the stranding or disabling of a domestic ferry, or the involvement of a domestic ferry in a collision;

.6 material damage to marine infrastructure external to a domestic ferry that could seriously endanger the safety of the domestic ferry, another ship or an individual; or

.7 severe damage to the environment, or the potential for severe damage to the environment, brought about by the damage of a domestic ferry or domestic ferries.

However, a marine casualty does not include a deliberate act or omission, with the intention to cause harm to the safety of a domestic ferry, an individual or the environment.

Marine incident means an event, or sequence of events, other than a marine casualty, which has occurred directly in connection with the operations of a domestic ferry that endangered, or, if not corrected, would endanger the safety of the domestic ferry, its occupants or any other person or the environment.

Master means an officer in possession of a certificate of competency corresponding to the rank and having command or charge of the domestic ferry.

Net tonnage means the measure of the useful capacity of a domestic ferry determined in accordance with the provisions of the present International Convention on Tonnage Measurement of Ships.

Nuclear domestic ferry means a domestic ferry provided with a nuclear power plant.

Organization means the International Maritime Organization.

Passenger means any person on board the domestic ferry other than the master and crew members.

Recognized organization means an organization that has been assessed by, and found to comply with the standards acceptable to, the competent authority. A recognized organization may be authorized to carry out surveys, issue certificates and undertake any other activity required per these regulations at the request and on behalf of the competent authority.

Seaworthy means fit to undertake the intended voyage without danger to the domestic ferry, environment or persons and complying with the provisions of these regulations in all aspects.

ARTICLE 3
Safety culture

The competent authority shall put in place effective mechanisms to promote and strengthen safety culture in all areas of domestic ferry operations.

ARTICLE 4
Surveys and certificates

1 All inspections, tests and surveys shall be carried out by the competent authority or a recognized organization, an equivalent domestic entity or a nominated surveyor. Upon satisfactory completion of the inspections, tests and surveys, certificates issued in association with such inspections, tests and surveys shall clearly and legibly state the name, functional title and contact information of the person undertaking such inspections, tests and surveys.

2 Certificates issued by the competent authority or a recognized organization, an equivalent domestic entity or a nominated surveyor shall be kept on board and be readily available for inspection at short notice.

ARTICLE 5
New-built domestic ferry

A new-built domestic ferry shall comply with the following requirements, as appropriate:

Construction
A domestic ferry shall be issued with a safety construction certificate.

Stability standards
A domestic ferry shall comply with appropriate intact and damaged standards.

Stability management
The master shall be provided with an approved stability booklet and sufficient information in order to maintain stability and for damage control.

Fire detection system
A domestic ferry shall have an adequate and approved fire detection system.

Fire-extinguishing equipment
A domestic ferry shall have adequate and approved fire-extinguishing equipment.

High-speed domestic ferry
A high-speed domestic ferry shall comply with SOLAS chapter X.

Inclining test
A domestic ferry shall undergo an inclining test upon completion of construction to determine its displacement and position of the centre of gravity for the lightship condition.

Life-saving equipment
A domestic ferry shall have adequate and approved life-saving equipment on board.

When determining the life-saving equipment to be carried on board a domestic ferry, the competent authority may consider the provisions of annex 2.

Load line
A domestic ferry shall be assigned a load line mark.

Markings and displays
A domestic ferry shall have the following marked or displayed, as appropriate, at a conspicuous place or places and clearly visible at all times:

.1 name;

.2 port of registry;

.3 draught marks and scales;

.4 load line mark;

.5 deadweight tonnage;

.6 gross tonnage;

.7 net tonnage;

.8 total number of passengers certified to carry;

.9 number of passengers certified to carry on each deck;

.10 number of lifejackets required;

.11 life-saving equipment location plan;

.12 fire-extinguishing equipment location plan; and

.13 navigational limits.

Nuclear domestic ferry
A nuclear domestic ferry shall comply with SOLAS chapter VIII.

Note: The domestic ferry shall retain on board certified copies of the above certificates, plans, markings and displays, which shall be, where necessary, weatherproof and securely affixed to the domestic ferry at a suitable place or places.

ARTICLE 6
Modification or conversion to domestic ferry

1 Any craft modified or converted to a domestic ferry shall comply with the requirements meant for new-built domestic ferry.

2 Navigational routes shall be reassessed.

ARTICLE 7
Repair, modification and conversion

All repairs, modifications and conversions shall be carried out under the supervision of the competent authority or a recognized organization, an equivalent domestic entity or a nominated surveyor.

ARTICLE 8
Registration

1 The competent authority shall maintain a register of domestic ferries under its jurisdiction with the name and details of the domestic ferry, and the name and contact information of its owner.

2 All major repairs, modifications and conversions shall be recorded by the competent authority or the recognized organization, an equivalent domestic entity or a nominated surveyor in the file or in an equivalent document.

ARTICLE 9
Manning

1 The domestic ferry shall be manned by well-qualified, certificated, medically fit and properly rested seafarers.

2 A safe manning certificate shall be issued by the competent authority and be available on board.

3 Crew shall be in possession of appropriate certification issued or recognized by the competent authority.

4 Crew shall be in possession of valid medical certificates prescribed by the competent authority prior to boarding the domestic ferry. A work arrangement schedule and record of rest hours shall be provided to ensure fitness for duty.

ARTICLE 10
Education and training

1 Education and training of shore staff and domestic ferry crew shall be provided by institutions which are duly accredited by the competent authority.

2 Education and training institutions accredited by the competent authority shall be audited by the competent authority at regular intervals to confirm the institution's suitability for purpose.

3 Education and training of shore staff and domestic ferry crew may follow the training courses developed by the Organization or by the competent authority.

4 The competent authority may benefit from the provisions of explanatory notes, and guidelines or guidance prepared by the Organization when developing syllabuses for education and training of shore staff and domestic ferry crew.

ARTICLE 11
Safety management and governance

1 The competent authority shall ensure adequate provision of safety management systems and governance mechanisms ashore and on board.

2 The competent authority shall audit the safety management system to ensure its effectiveness.

3 The company shall ensure that safety management systems clearly establish that the master has the overriding authority and the responsibility to make decisions with respect to safety.

4 The company shall review safety management systems regularly and following any marine casualty or marine incident to ensure they remain effective in achieving its safety outcomes.

5 The owner, the charterer, the company operating the domestic ferry, or any other person shall not prevent or restrict the master of the domestic ferry from taking or executing any decision which, in the master's professional judgement, is necessary for safety of life at sea and protection of the marine environment.

6 The master shall consider the checklist in annex 3 when deciding the seaworthiness of the domestic ferry.

ARTICLE 12
Occupational health and safety

The competent authority shall ensure adequate provision of occupational health and safety systems ashore and on board with emphasis on new and emerging health and safety issues.

ARTICLE 13
Navigation and radio communications

1 All equipment on board shall be certified by the competent authority or the recognized organization, an equivalent domestic entity or a nominated surveyor and be fully functional at the time of departure.

2 All domestic ferries should carry appropriate safety radio equipment which may comply with GMDSS requirements where appropriate.

Equipment
The competent authority shall establish the requirements for navigational and communications equipment for the domestic ferry taking into account its size, capacity and navigational limits.

Navigational charts
Navigational charts, including electronic versions, for the intended voyage shall be up to date.

Navigational routes
The competent authority should indicate regular navigational routes for high-speed domestic ferries.

Navigational limits
The competent authority should assign each domestic ferry navigational limits.

The domestic ferry shall not operate beyond its navigational limits other than in exceptional circumstances.

Weather
Approved weather monitoring equipment that is able to receive weather forecasts shall be fitted.

ARTICLE 14
Inspection and maintenance

The condition of the domestic ferry and its machinery and equipment shall be routinely and regularly inspected and maintained by qualified crew or operating personnel to conform with the provisions of these regulations to ensure that the domestic ferry in all respects will remain fit to proceed without danger to the domestic ferry or persons on board.

ARTICLE 15
Stowage and securing

1 All personal belongings, baggage, cargo and vehicles shall be properly stowed and lashed before commencing the intended voyage so as to prevent as far as is practicable, throughout the voyage, damage or hazard to the domestic ferry and the persons on board, and loss of cargo overboard.

2 Dangerous goods shall not be allowed on board unless carried in compliance with relevant competent authority approved provisions.

ARTICLE 16
Embarkation and disembarkation

1 Adequate and appropriate safe gangways, fenders and safety nets shall be in place, where necessary, for the safety of the domestic ferry.

2 Adequate and safe means of access between the domestic ferry and the berth shall be provided.

ARTICLE 17
Prior to departure and arrival

1 Prior to departure from a port, the master shall confirm that the domestic ferry is in compliance with these regulations.

2 The master shall ensure that the crew is adequately rested and fit prior to the voyage.

3 Under no circumstances shall the master take, or be compelled to take, an unsafe or unseaworthy domestic ferry on any voyage.

Checklist
Prior to departure, the master shall complete a checklist, such as in annex 3, to ensure the domestic ferry's seaworthiness.

Crew and passengers
Prior to departure, all crew shall be accounted for by the master, and passengers and cargo shall be documented both on board and ashore.

The master shall ensure the maximum number of passengers on each deck does not exceed assigned numbers.

Terms and conditions of carriage shall be clear and readily accessible.

Crew and passenger lists shall be clear and readily accessible.
Departure

The master shall be fully satisfied with safety matters on board and related external circumstances before taking the domestic ferry to sea.

The master shall not take an unsafe or unseaworthy domestic ferry on a voyage.

Fitness for the voyage
A valid certificate of fitness for the intended voyages issued by the competent authority shall be kept with the master.

Life-saving equipment
Before the domestic ferry leaves port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.

Load line marking and draughts
The domestic ferry shall not sail with the appropriate load line mark submerged at any time during the voyage or on arrival.

Draught readings shall be taken by the master or a certificated officer and duly recorded in the logbook.

Safety briefing
Pre-departure safety briefing shall be conducted that shall include an abandon domestic ferry demonstration, donning and wearing of lifejackets and boarding of any life-saving equipment or usage of floating devices as appropriate.

Weather bulletin
The master shall be provided with the latest weather bulletin to be encountered during the voyage.

The master shall not take the domestic ferry on the voyage in the absence of a latest weather bulletin or in receipt of an adverse weather forecast.

The competent authority shall not allow the domestic ferry to depart in or in the face of adverse weather.

Arrival
Prior to arrival the master shall conduct safety checks and make safety announcements.

The master shall be fully satisfied with safety matters on board and related external circumstances before bringing the domestic ferry to the port.

ARTICLE 18
Certificates

All certificates shall be issued by or on behalf of the competent authority or by a recognized organization, an equivalent domestic entity or a nominated surveyor.

ARTICLE 19
Exemption and exception

1 Under no circumstances shall the domestic ferry sail, or be allowed to sail, unless in full compliance with the provisions of these regulations or be in possession of a valid exemption certificate or covered by an exception decree, issued by the competent authority providing equivalent level of safety.

2 The exemption certificate shall clearly and explicitly show the reason for the exemption including the name, functional title and recognized and verifiable contact information of the authorized person issuing it. An exemption shall be verified by the master.

ARTICLE 20
Aids to navigation

1 The competent authority shall ensure provision of sufficient number of aids to navigation to facilitate safe navigation.

2 Such aids to navigation shall be fully functioning and regularly maintained.

3 Deficiencies in the functioning of the aids to navigation shall be promptly promulgated as Notices to Mariners and other appropriate means.

ARTICLE 21
Marine casualties and marine incidents

1 Any marine casualty or marine incident involving a domestic ferry shall be reported by the master to the competent authority as soon as practicable.

2 Any marine casualty or marine incident involving a domestic ferry shall be promptly investigated by the competent authority and duly recorded with emphasis on why and how it occurred.

3 The competent authority shall ensure appropriate measures are taken by all relevant parties to avoid similar or near similar future occurrences.

ARTICLE 22
Duty to render assistance

The master shall render assistance to any person in distress or who appears to be in distress at sea regardless of the nationality or status and in accordance with domestic and international law.

ARTICLE 23
Breach of regulations

The competent authority shall ensure appropriate national legal provisions are in place to take regulatory action where there is a breach of these regulations.

ARTICLE 24
Amendments

Amendments to these regulations shall be promulgated by the competent authority, according to national legislation.

ARTICLE 25
Implementation

In order to facilitate the implementation of and compliance with these regulations, the competent authority may issue guidance.

ARTICLE 26
Annexes

The annexes shall form an integral part of these regulations.

ANNEX 1
NAVIGATIONAL AREA

The competent authority shall insert:

.1 Certified copy of the chart of the domestic waters of the country concerned with coordinates clearly shown.

.2 Certified copy of the domestic ferry navigational area chart with coordinates clearly shown.

ANNEX 2
LIFE-SAVING EQUIPMENT

The life-saving equipment required by article 5 may include:

.1 float-free emergency position-indicating radio beacon (EPIRB);

.2 two-way automatic identification system (AIS);

.3 waterproof floating hand-held VHF radio;

.4 flares;

.5 sufficient float-free survival craft to carry all permitted passengers plus 25%; and

.6 sufficient approved lifejackets for all permitted passengers plus 25%.

ANNEX 3
CHECKLIST

This declaration shall be signed by the master and chief engineer.
Notes:

1 Responses shall be "Yes" or "No" only.

2 If in doubt, the response shall be "No".

3 For question 8, insert "NA" if the domestic ferry is not subject to damaged stability.

4 If the response to any question is "No", the domestic ferry shall not sail nor shall the master be instructed to sail, except with written permission to do so from a competent authority.

	Question	**Response**
1	Are the required certificates valid, including exemption certificate where required?	
2	Is the manning according to safe manning certificate?	
3	Are the crew adequately rested and fit for duties?	
4	Are there adequate and enough bunkers?	
5	Is the intended voyage within the assigned navigational area?	
6	Are the fire and bilge pumps in operational readiness?	
7	Is its stability sufficient per the stability booklet?	
8	Does it comply with the damage stability requirements?	
9	Are watertight doors and hatches closed and secured?	
10	Are the passengers distributed on various decks safely?	
11	Is it confirmed that the load line mark is not submerged?	
12	Have the draughts been taken and recorded?	
13	Is the navigational and communications equipment fully functional?	
14	Is the weather forecast confirmed for a safe journey?	
15	Are the crew and passengers accounted and reported for?	
16	Have the preparations been made for the safety briefing?	
17	Is all life-saving equipment certified and ready for use?	
18	Is the vessel safe and seaworthy?	

Date, location, name of master and signature

Date, location, name of chief engineer and signature

***

ANNEX 27

DRAFT AMENDMENTS TO SOLAS CHAPTER II-2 IN RELATION TO FLASHPOINT

CHAPTER II-2
Construction – Fire protection, fire detection and fire extinction

Part A
General

Regulation 3
Definitions

1 The following new paragraphs are added after existing paragraph 58, together with the associated footnotes:

"59 *Confirmed case (flashpoint)*: A confirmed case is when a representative sample analysed in accordance with standards acceptable to the Organization* by an accredited laboratory** reports the flash point as measured to be below 60°C.

* ISO 2719:2016, Determination of flash point - Pensky-Martens closed cup method, Procedure A (for Distillate Fuels) or Procedure B (for Residual Fuels).

** The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given flash point test ISO 2719:2016.

60 *Representative sample* is a product specimen having its physical and chemical characteristics identical to the average characteristics of the total volume being sampled.

61 *Oil fuel* is defined in regulation 1 of Annex 1 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto."

Part B
Prevention of fire and explosion

Regulation 4
Probability of ignition

2 At the end of paragraph 2.1.4, delete the word "and" and at the end of paragraph 2.1.5, replacing "." with ";".

3 The following new paragraphs are added after existing paragraph 2.1.5, together with the associated footnotes:

".6 ships carrying oil fuel shall prior to bunkering be provided with a declaration signed and certified by the fuel oil supplier's representative that the oil fuel supplied is in conformity with regulation SOLAS II.2/4.2.1 and the test method used for determining the flashpoint. A bunker delivery note for the fuel delivered to the ship shall contain the flashpoint specified in accordance with standards acceptable to the Organization,* or a statement that the flashpoint has been measured at or above 70ºC,**

* ISO 2719:2016, Determination of flash point – Pensky-Martens closed cup method, Procedure A (for Distillate Fuels) or Procedure B (for Residual Fuels).

** This information may be included in the bunker delivery note according MARPOL Annex VI/18.

.7 the Contracting Governments undertake to ensure that appropriate authorities designated by them inform the Organization for transmission to Contracting Governments and Member States of the Organization of all confirmed cases where oil fuel suppliers have failed to meet the requirements specified in SOLAS regulation II-2/4.2.1; and

.8 the Contracting Governments undertake to ensure that appropriate authorities designated by them take action as appropriate against oil fuel suppliers that have been found to deliver fuel that does not comply with regulation SOLAS regulation II-2/4.2.1."

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ANNEX 28

ROAD MAP FOR DEVELOPING A GOAL-BASED CODE FOR MARITIME AUTONOMOUS SURFACE SHIPS (MASS)

Sessions of MSC	Work plan
MSC 106 (2 to 11 November 2022)	- Consideration of key principles and common understanding of the purpose and objectives for the new instrument - Commence consideration of the common potential gaps and/or themes identified during the Regulatory Scoping Exercise (RSE) (MSC.1/Circ.1638, section 5) starting with the high-priority items (MSC.1/Circ.1638, paragraphs 6.11.1 to 6.11.3), including: o identification of which potential gaps should be addressed prior to drafting instruments o identification of potential gaps which should be addressed while an instrument is being drafted High-priority items (MSC.1/Circ.1638, paragraphs 6.11.1 to 6.11.3) include but are not limited to: o consideration, together with relevant documents, whether to amend the definition for MASS and degrees of autonomy (including the respective definition) o meaning of the terms master, crew or responsible person o remote control station/centre o determination of the remote operator as a seafarer - Commence development of glossary/terminology, to be further developed throughout the process of drafting o development should take into account previous submissions made to the Committee - Commence consideration of the scope and framework of the mandatory and/or non-mandatory instrument to be developed (including structure of instrument, areas it should encompass, parts/chapters, etc.) for a goal-based instrument (MASS Code) and other associated non-mandatory instruments - Commence development of provisions for a non-mandatory goal-based code - Considerations of gaps not covered by the RSE but important for the development of a MASS Code o identifying issues for possible consideration by a Joint MSC/LEG/FAL Working Group (JWG)

	- Consider the need and timing to: o involve sub-committees[1] o initiate overall coordination with other committees o liaise with other international organizations such as ILO, ISO, IHO, IALA and IMSO - Update this road map
MSC 107 (1st half 2023)	- If necessary, continue: o consideration of common potential gaps and/or themes o consideration of glossary/terminology o identifying issues for possible consideration by a Joint MSC/LEG/FAL Working Group (JWG) - Continue the development of the non-mandatory MASS Code o continue to review the scope and framework o develop provisions for a goal-based instrument, taking into account the input from sub-committees, as appropriate - In the process of developing provisions, consider the impact and identify changes to existing IMO instruments and make recommendation on how to address the changes to those instruments, as appropriate, also taking into account any recommendations from the Joint MSC/LEG/FAL Working Group (JWG). In doing so, the necessary amendments should focus on those classified as "High-priority"[2] during the RSE: o SOLAS chapters II-1, II-2, III, IV, V, VI, VII, IX, XI-1 and XI-2; o COLREG; o STCW Convention and Code; o STCW-F Convention; o 1966 LL Convention and 1988 Protocol thereto; o 1979 SAR Convention; o FSS Code; o IMSBC Code; o IMDG Code; o TONNAGE 1969; o IBC Code; and o IGC Code - Consider the involvement of sub-committees[3] - Update this road map

1 Tasks for the sub-committees will be included in this road map when agreed by the Committee.

2 Medium and low priority instruments in accordance with the outcome of the RSE will be dealt with at a later date (MSC.1/Circ.1638, paragraphs 6.8.1 to 6.9.3).

3 Tasks for the sub-committees will be included in this road map when agreed by the Committee.

MSC 108 (1st half 2024)	- If necessary, continue: o consideration of common potential gaps and/or themes o consideration of glossary/terminology o identifying issues for possible consideration by a Joint MSC/LEG/FAL Working Group (JWG) - Continue the development of the non-mandatory MASS Code o continue to review the scope and framework o develop provisions for a goal-based instrument, taking into account the input from sub-committees, as appropriate - Decision on the means to adopt the mandatory instrument (Code): implementation through one Convention or through several conventions. If needed, develop amendments to existing instruments necessary for the entry into force of the new instrument and need to be approved and/or adopted at the same time as the new Code - continue consideration of any subsequent amendments to other existing IMO instruments, impacted by the entry into force of the new Code, including the *Interim Guidelines on MASS Trials* (MSC.1/Circ.1604) - finalize the non-mandatory MASS Code as annex to a draft MSC resolution - Consider the procedures for amending existing IMO instruments o consider whether amendments to those instruments could be done under the existing output, or whether there is a need for the MASS Working Group to develop new outputs for this work - Update this road map
MSC 109 (2nd half 2024)	- Finalization and adoption of the new non-mandatory MASS Code - Finalization of the draft mandatory MASS Code, based on the approved non-mandatory MASS Code - Finalization and approval of amendments to existing instruments necessary for the entry into force of the new instrument - Continue the review of existing IMO instruments, under the purview of MSC, with a focus on those classified as "High-priority" during the RSE - Identification of future work

	○ consider whether a new output would be needed, or the existing output should be amended - Update this road map
MSC 110 (1st half 2025)	- Adoption of a mandatory MASS Code[4] [5] and associated Convention(s) giving effect to the new MASS Code - Adoption and/or final approval of amendments to existing instruments necessary for the entry into force of the new instrument - Finalize the review of existing IMO instruments with a focus on those classified as "High-priority" during the RSE; and agree on remaining future work and the way forward.

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[4] Adoption should take into account the progress made by other Committees and the JWG, if established.

[5] Entry into force date of 1 January 2028 means adoption on 1 July 2026 at the latest (first half of 2026).

ANNEX 29

DRAFT FAL.2-MEPC.1-MSC.1-LEG.2 CIRCULAR

LIST OF CERTIFICATES AND DOCUMENTS REQUIRED TO BE CARRIED ON BOARD SHIPS, 2022

1 The Facilitation Committee, at its […] session, the Marine Environment Protection Committee, at its […] session, the Maritime Safety Committee, at its 105th session, and the Legal Committee, at its 109th session, approved the List of certificates and documents required to be carried on board ships, […], as set out in the annex.

2 This work was carried out in accordance with the provisions of section 2 of the annex to the FAL Convention concerning formalities required of shipowners by public authorities on the arrival, stay and departure of ships. It is reiterated that these provisions should not be read as precluding a requirement for the presentation for inspection by the appropriate authorities of certificates and other documents carried by the ship pertaining to its registry, measurement, safety, manning, classification and other related matters.

3 Since the issuance of FAL.2/Circ.131-MEPC.1/Circ.873-MSC.1/Circ.1856-LEG.2/Circ.3, several instruments addressed in that circular have been amended. It is recognized that the list should be periodically updated in pursuance to the aforesaid provisions of the FAL Convention.

4 This circular lists only the certificates and documents that are required under IMO instruments and it does not include certificates or documents required by other international organizations or governmental authorities.

5 The certificates and relevant record books may be in electronic form. In this connection, the Guidelines[1] developed by the Organization should be taken into account.

6 This circular should not be used in the context of port State control inspections for which convention requirements should be referred to.

7 Member Governments are invited to note the information provided in the annex and take action as appropriate.

8 This circular supersedes FAL.2/Circ.131-MEPC.1/Circ.873-MSC.1/Circ.1586-LEG.2/Circ.3.

[1] Refer to the *Guidelines for the use of electronic certificates* (FAL.5/Circ.39/Rev.2) and *Guidelines for the use of electronic record books under MARPOL* (resolution MEPC.312(74)).

ANNEX

LIST OF CERTIFICATES AND DOCUMENTS REQUIRED TO BE CARRIED ON BOARD SHIPS, 2022

(Note: All certificates to be carried on board must be valid and drawn up in the form corresponding to the model where required by the relevant international convention or instrument)

No.	Contents	Reference
1	**All ships to which the referenced convention applies**	
	International Tonnage Certificate (1969) An International Tonnage Certificate (1969) shall be issued to every ship, the gross and net tonnage of which have been determined in accordance with the Convention.	Tonnage 1969, article 7
	International Load Line Certificate An International Load Line Certificate shall be issued under the provisions of the International Convention on Load Lines, 1966, to every ship which has been surveyed and marked in accordance with the Convention or the Convention as modified by the 1988 LL Protocol, as appropriate.	LL 1966, article 16; LL PROT 1988, article 16
	International Load Line Exemption Certificate An International Load Line Exemption Certificate shall be issued to any ship to which an exemption has been granted under and in accordance with article 6 of the Load Line Convention or the Convention as modified by the 1988 LL Protocol, as appropriate.	LL 1966, article 16; LL PROT 1988, article 16
	Exemption Certificate[2] When an exemption is granted to a ship under and in accordance with the provisions of SOLAS 1974, a certificate called an Exemption Certificate shall be issued in addition to the certificates listed above.	SOLAS 1974, regulation I/12; SOLAS PROT 1988, regulation I/12
	Coating Technical File A Coating Technical File, containing specifications of the coating system applied, where applicable, to dedicated seawater ballast tanks in all types of ships and double-side skin spaces of bulk carriers of 150 m in length and upwards and cargo oil tanks of crude oil tankers, record of the shipyard's and shipowner's coating work, detailed criteria for coating sections, job specifications, inspection, maintenance and repair, shall be kept on board and maintained throughout the life of the ship.	SOLAS 1974, regulation II-1/3-2 and II-1/3-11; resolution MSC.215(82), as amended by resolution MSC.341(91) and MSC.1/Circ.1381; resolution MSC.288(87) as modified by circular MSC.1/Circ.1381 and amended by resolution MSC.342(91)

[2] SLS.14/Circ.115, Add.1, Add.2 and Add.3 refer to the issue of exemption certificate.

No.	Contents	Reference
	Emergency Towing Procedure All ships shall be provided with a ship-specific emergency towing procedure. Such a procedure shall be carried on board the ship for use in emergency situations and shall be developed based on the guidelines developed by the Organization.	SOLAS, regulation II-1/3-4; MSC.1/Circ.1255
	Construction drawings A set of as-built construction drawings and other plans showing any subsequent structural alterations shall be kept on board a ship constructed on or after 1 January 2007.	SOLAS 1974, regulation II-1/3-7; MSC/Circ.1135
	Ship Construction File A Ship Construction File with specific information should be kept on board oil tankers of 150 m in length and above and bulk carriers of 150 m in length and above, constructed with single deck, top-side tanks and hopper side tanks in cargo spaces, excluding ore carriers and combination carriers: .1 for which the building contract is placed on or after 1 July 2016; .2 in the absence of a building contract, the keels of which are laid or which are at a similar stage of construction on or after 1 July 2017; or .3 the delivery of which is on or after 1 July 2020 shall carry a Ship Construction File containing information in accordance with regulations and guidelines, and updated as appropriate throughout the ship's life in order to facilitate safe operation, maintenance, survey, repair and emergency measures.	SOLAS 1974, regulation II-1/3-10; MSC.1/Circ.1343
	Noise Survey Report Applicable to new ships of 1,600 gross tonnage and above, excluding dynamically supported craft, high-speed craft, fishing vessels, pipe-laying barges, crane barges, mobile offshore drilling units, pleasure yachts not engaged in trade, ships of war and troopships, ships not propelled by mechanical means, pile driving vessels and dredgers. A noise survey report shall always be carried on board and be accessible for the crew. For existing ships, refer to section "Other certificates and documents which are not mandatory – Noise Survey Report" (resolution A.468(XII).	SOLAS 1974, regulation II-1/3-12; Noise Code, section 4.3

No.	Contents	Reference
	Stability information and loading information Every passenger ship regardless of size and every cargo ship of 24 m and over shall be inclined on completion and the elements of their stability determined. The master shall be supplied with stability information to the satisfaction of the Administration as is necessary to enable him or her, by rapid and simple procedures, to obtain accurate guidance as to the stability of the ship under varying conditions of service to maintain the required intact stability and stability after damage. For ships constructed from 1 January 2010, the intact and damage stability information required by SOLAS regulation II-1/5-1 shall be presented as consolidated data and encompass the full operating range of draught and trim. The stability information, and loading information related to ship strength when required under regulation 10 of LL Protocol 1988, shall also be carried on board at all times, together with evidence that the information has been approved by the Administration. For bulk carriers, the information required in a bulk carrier booklet may be contained in the stability information.	SOLAS 1974, regulations II-1/5 and II-1/5-1; LL 1966, regulation 10; LL Protocol 1988, regulation 10
	Damage control plans and booklets On passenger and cargo ships, there shall be permanently exhibited plans showing clearly for each deck and hold the boundaries of the watertight compartments, the openings therein with the means of closure and position of any controls thereof, and the arrangements for the correction of any list due to flooding. Booklets containing the aforementioned information shall be made available to the officers of the ship.	SOLAS 1974, regulation II-1/19; MSC.1/Circ.1245, as amended by MSC.1/Circ.1570
	Manoeuvring booklet The stopping times, ship headings and distances recorded on trials, together with the results of trials to determine the ability of ships having multiple propellers	SOLAS 1974, regulation II-1/28

No.	Contents	Reference
	to navigate and manoeuvre with one or more propellers inoperative, shall be available on board for the use of the master or designated personnel.	
	Evaluation of the alternative design and arrangements Where applicable, a copy of the documentation, as approved by the Administration, indicating that the alternative design and arrangements comply with this regulation shall be carried on board the ship.	SOLAS 1974, regulations II-1/55.4.2, II-2/17.4.2, and III/38.4.2
	Maintenance plans The maintenance plan shall include the necessary information about fire protection systems and fire-fighting systems and appliances as required by regulation II-2/14.2.2. For tankers, additional requirements are referred to in regulation II-2/14.4. For passenger ships carrying more than 36 passengers, the maintenance plan should include low-location lighting and public address system as required by SOLAS regulation II-2/14.3.	SOLAS 1974, regulations II-2/14.2.2, II-2/14.3 and II-2/14.4
	Onboard training and drills record Fire drills shall be conducted and recorded in accordance with the provisions of regulations III/19.3 and III/19.5.	SOLAS 1974, regulation II-2/15.2.2.5
	Fire safety training manual A training manual shall be written in the working language of the ship and shall be provided in each crew mess room and recreation room or in each crew cabin. The manual shall contain the instructions and information required in regulation II-2/15.2.3.4. Part of such information may be provided in the form of audiovisual aids in lieu of the manual.	SOLAS 1974, regulation II-2/15.2.3
	Fire-control plan/booklet General arrangement plans shall be permanently exhibited for the guidance of the ship's officers, showing clearly for each deck the control stations, the various fire sections together with particulars of the fire detection and fire alarm systems and the fire-extinguishing appliances, etc. Alternatively, at the discretion of the Administration, the aforementioned details may be set out in a booklet, a copy of which shall be supplied to each officer, and one copy shall at all times be available on board in an accessible position. Plans and booklets shall be kept up to date; any alterations shall be recorded as soon as practicable. A duplicate set of fire-control plans or a booklet containing such plans shall be permanently stored in a prominently marked weathertight enclosure	SOLAS 1974, regulations II-2/15.2.4 and II-2/15.3.2

No.	Contents	Reference
	outside the deckhouse for the assistance of shoreside fire-fighting personnel.	
	Fire safety operational booklet The fire safety operational booklet shall contain the necessary information and instructions for the safe operation of the ship and cargo handling operations in relation to fire safety. The booklet shall be written in the working language of the ship and be provided in each crew mess room and recreation room or in each crew cabin. The booklet may be combined with the fire safety training manuals required in regulation II-2/15.2.3.	SOLAS 1974, regulation II-2/16.2
	Operations manual for helicopter facility Each helicopter facility, if fitted, shall have an operations manual, including a description and a checklist of safety precautions, procedures and equipment requirements. This manual may be part of the ship's emergency response procedures.	SOLAS 1974, regulation II-2/18.8.1
	Statement of acceptance of the installation of replacement release and retrieval system to an existing lifeboat For all ships, no later than the first scheduled dry-docking after 1 July 2014, but no later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code shall be replaced with equipment that complies with the Code.	SOLAS 1974, regulation III/1.5; LSA Code, paragraph 4.4.7.6; MSC.1/Circ.1392 and Corr.1, as amended by MSC.1/Circ.1584
	Muster list and emergency instructions All ships shall be provided with muster list and emergency instructions, which shall comply with the requirements of regulation 37 and be exhibited in conspicuous places throughout the ship including the navigation bridge, engine-room and crew accommodation spaces. In the case of passenger ships, these instructions shall be drawn up in the language(s) required by its flag State and in the English language.	SOLAS 1974, regulations III/8 and III/37
	Ship-specific plans and procedures for recovery of persons from the water All ships shall have ship-specific plans and procedures for recovery of persons from the water. Ships constructed before 1 July 2014 shall comply with this requirement by the first periodical or renewal safety equipment survey of the ship to be carried out after 1 July 2014, whichever comes first. Ro-ro passenger ships which comply with regulation III/26.4 shall be deemed to comply with this regulation.	SOLAS 1974 regulation, III/17-1; resolution MSC.346(91); MSC.1/Circ.1447

No.	Contents	Reference
	The plans and procedures should be considered as a part of the emergency preparedness plan required by paragraph 8 of the ISM Code.	
	Training manual The training manual, which may comprise several volumes, shall contain instructions and information, in easily understood terms illustrated wherever possible, on the life-saving appliances provided in the ship and on the best methods of survival. Any part of such information may be provided in the form of audiovisual aids in lieu of the manual.	SOLAS 1974, regulation III/35
	Radio record A record shall be kept, to the satisfaction of the Administration and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.	SOLAS 1974, regulation IV/17
	Minimum safe manning document Every ship to which chapter I of the Convention applies shall be provided with an appropriate safe manning document or equivalent issued by the Administration as evidence of the minimum safe manning.	SOLAS 1974, regulation V/14.2
	Voyage data recorder system – certificate of compliance The voyage data recorder system, including all sensors, shall be subjected to an annual performance test. The test shall be conducted by an approved testing or servicing facility to verify the accuracy, duration and recoverability of the recorded data. In addition, tests and inspections shall be conducted to determine the serviceability of all protective enclosures and devices fitted to aid location. A copy of the certificate of compliance issued by the testing facility, stating the date of compliance and the applicable performance standards, shall be retained on board the ship.	SOLAS 1974, regulation V/18.8
	AIS test report The automatic identification system (AIS) shall be subjected to an annual test by an approved surveyor or an approved testing or servicing facility. A copy of the test report shall be retained on board and should be in accordance with a model form set out in the annex to MSC.1/Circ.1252.	SOLAS 1974, regulation V/18.9; MSC.1/Circ.1252
	Nautical charts and nautical publications Nautical charts and nautical publications for the intended voyage shall be adequate and up to date. An electronic chart display and information system (ECDIS) is also	SOLAS 1974, regulations V/19.2.1.4 and V/27

No.	Contents	Reference
	accepted as meeting the chart carriage requirements of this sub-paragraph.	
	LRIT conformance test report A conformance test report should be issued, on satisfactory completion of a conformance test, by the Administration or the ASP who conducted the test acting on behalf of the Administration and should be in accordance with the model set out in appendix 2 of MSC.1/Circ.1307.	SOLAS 1974, regulation V/19-1; MSC.1/Circ.1307
	International Code of Signals and a copy of Volume III of IAMSAR Manual All ships required to carry a radio installation shall carry the International Code of Signal; all ships shall carry an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.	SOLAS 1974, regulation V/21
	Records for pilot ladders used for pilot transfer All pilot ladders used for pilot transfer shall be clearly identified with tags or other permanent marking so as to enable identification of each appliance for the purposes of survey, inspection and record-keeping. A record shall be kept on the ship as to the date the identified ladder is placed into service and any repairs effected.	SOLAS 1974 regulation V/23.2.4
	Records of navigational activities All ships engaged on international voyages shall keep on board a record of navigational activities and incidents including drills and pre-departure tests. When such information is not maintained in the ship's logbook, it shall be maintained in another form approved by the Administration.	SOLAS 1974, regulations V/26 and V/28.1
	Cargo Securing Manual All cargoes other than solid and liquid bulk cargoes, cargo units and cargo transport units, shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual approved by the Administration. In ships with ro-ro spaces, as defined in regulation II-2/3.41, all securing of such cargoes, cargo units and cargo transport units, in accordance with the Cargo Securing Manual, shall be completed before the ship leaves the berth. The Cargo Securing Manual is required on all types of ships engaged in the carriage of all cargoes other than solid and liquid bulk cargoes, which shall be drawn up to a standard at least equivalent to the guidelines developed by the Organization.	SOLAS 1974, regulations VI/5.6 and VII/5; MSC.1/Circ.1353/Rev.2

No.	Contents	Reference
	Material safety data sheets (MSDS) Ships carrying oil or oil fuel, as defined in regulation 1 of annex 1 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, shall be provided with material safety data sheets, based on the recommendations developed by the Organization, prior to the loading of such oil as cargo in bulk or bunkering of oil fuel.	SOLAS 1974, regulation VI/5-1; resolution MSC.286(86)
	Safety Management Certificate A Safety Management Certificate shall be issued to every ship by the Administration or an organization recognized by the Administration. The Administration or an organization recognized by it shall, before issuing the Safety Management Certificate, verify that the company and its shipboard management operate in accordance with the approved safety management system.	SOLAS 1974, regulation IX/4; ISM Code, paragraph 13
	Document of compliance A document of compliance shall be issued to every company which complies with the requirements of the ISM Code. A copy of the document shall be kept on board.	SOLAS 1974, regulation IX/4; ISM Code, paragraph 13
	Continuous Synopsis Record (CSR) Every ship to which chapter I of the Convention applies shall be issued with a Continuous Synopsis Record. The Continuous Synopsis Record provides an onboard record of the history of the ship with respect to the information recorded therein.	SOLAS 1974, regulation XI-1/5
	Ship security plan and associated records Each ship shall carry on board a ship security plan approved by the Administration. The plan shall make provision for the three security levels as defined in part A of the ISPS Code. Records of the following activities addressed in the ship security plan shall be kept on board for at least the minimum period specified by the Administration: .1 training, drills and exercises; .2 security threats and security incidents; .3 breaches of security; .4 changes in security level; .5 communications relating to the direct security of the ship such as specific threats to the ship or to port facilities the ship is, or has been, in; .6 internal audits and reviews of security activities; .7 periodic review of the ship security assessment; .8 periodic review of the ship security plan; .9 implementation of any amendments to the plan; and	SOLAS 1974, regulation XI-2/9; ISPS Code. part A, sections 9 and 10

No.	Contents	Reference
	.10 maintenance, calibration and testing of any security equipment provided on board, including testing of the ship security alert system.	
	International Ship Security Certificate (ISSC) or **Interim International Ship Security Certificate** An International Ship Security Certificate (ISSC) shall be issued to every ship by the Administration or an organization recognized by it to verify that the ship complies with the maritime security provisions of SOLAS chapter XI-2 and part A of the ISPS Code. An interim ISSC may be issued under the ISPS Code, part A, section 19.4.	SOLAS 1974, regulation XI-2/9.1.1; ISPS Code, part A, section 19 and appendices
	[Exemption Certificate for UNSP Barges An unmanned non-self-propelled (UNSP) barge, as defined in regulation 1.40 of MARPOL Annex I, regulation 1.16 of MARPOL Annex IV, and regulation 2.1.32 of MARPOL Annex VI, may be granted exemption from the survey and certification requirements under MARPOL Annexes I, IV and VI. In this connection, the exemption certificate(s) for a UNSP barge should be issued by the Administration, using the forms set out in the appendices of MARPOL Annexes I, IV and VI, taking into account the *Guidelines for exemption of unmanned non-self-propelled (UNSP) barges from certain survey and certification requirements under the MARPOL Convention* (MEPC.1/Circ.892). Note: the amendments to MARPOL Annexes I and IV, as adopted by resolution MEPC.330(76), and MARPOL Annex VI, as adopted by resolution MEPC.328(76), are expected to come into force on 1/11/2022]	[MARPOL Annex I, regulations 3.7 and 9.2; MARPOL Annex IV, regulations 3.2 and 7.2; MARPOL Annex VI, regulations 3.4 and 8.4; MEPC.1/Circ.892]
	International Oil Pollution Prevention Certificate An international Oil Pollution Prevention Certificate shall be issued, after survey in accordance with regulation 6 of Annex I of MARPOL, to any oil tanker of 150 gross tonnage and above and any other ship of 400 gross tonnage and above which is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to MARPOL. The certificate is supplemented with a Record of Construction and Equipment for Ships other than Oil Tankers (Form A) or a Record of Construction and Equipment for Oil Tankers (Form B), as appropriate.	MARPOL Annex I, regulation 7
	Oil Record Book Every oil tanker of 150 gross tonnage and above and every ship of 400 gross tonnage and above other than an oil tanker shall be provided with an Oil Record Book, Part I (Machinery space operations). Every oil tanker of	MARPOL Annex I, regulations 17 and 36

No.	Contents	Reference
	150 gross tonnage and above shall also be provided with an Oil Record Book, Part II (Cargo/ballast operations).	
	Shipboard Oil Pollution Emergency Plan Every oil tanker of 150 gross tonnage and above and every ship other than an oil tanker of 400 gross tonnage and above shall carry on board a Shipboard Oil Pollution Emergency Plan approved by the Administration.	MARPOL Annex I, regulation 37; resolution MEPC.54(32), as amended by resolution MEPC.86(44)
	International Sewage Pollution Prevention Certificate An International Sewage Pollution Prevention Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 4 of Annex IV of MARPOL, to any ship which is required to comply with the provisions of that Annex and is engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention.	MARPOL Annex IV, regulation 5; MEPC/Circ.408
	Document of approval for the rate of sewage discharge Untreated sewage from ships other than passenger ships in all areas and from passenger ships outside special areas that has been stored in holding tanks shall be discharged at a moderate rate approved by the Administration based upon the standards developed by the Organization.	MARPOL Annex IV, regulation 11.1.1; resolution MEPC.157(55)
	Garbage management plan Every ship of 100 gross tonnage and above, and every ship which is certified to carry 15 persons or more, and fixed or floating platforms shall carry a garbage management plan, which the crew shall follow.	MARPOL Annex V, Regulation 10.2; resolution MEPC.220(63)
	Garbage Record Book Every ship of 400 gross tonnage and above and every ship which is certified to carry 15 or more persons engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to the Convention and every fixed and floating platform shall be provided with a Garbage Record Book.	MARPOL Annex V, regulation 10.3
	SOx Emission Compliance Certificate and Exhaust Gas Cleaning (EGC) System Technical Manual For ships where an EGC system unit is fitted as an alternative compliance method to meet the requirements of MARPOL Annex VI regulation 14 in accordance with regulation 4 of MARPOL Annex VI, the SOx Emission Compliance Certificate, together with the EGC System Technical Manual, should be carried on board the ships. The certificate is valid for the life of the EGC System unit, subject to surveys in accordance with the relevant	MARPOL Annex VI, regulation 4; resolution MEPC.259(68)

No.	Contents	Reference
	provisions of *2015 Guidelines for exhaust gas cleaning systems* (resolution MEPC.259(68)).	
	Ship Energy Efficiency Management Plan (SEEMP) All ships of 400 gross tonnage and above, excluding platforms (including FPSOs and FSUs) and drilling rigs, regardless of their propulsion, shall keep on board a ship-specific Ship Energy Efficiency Management Plan (SEEMP). This may form part of the ship's safety management system (SMS). In the case of a ship of 5,000 gross tonnage and above, the SEEMP shall include a description of the methodology that will be used to collect the data required by regulation [27.1] of MARPOL Annex VI and the processes that will be used to report the data to the ship's Administration. The Administration shall ensure that for each ship to which regulation [27] applies, the SEEMP complies with regulation [26.2] of MARPOL Annex VI. This shall be done prior to collecting data under regulation [27] of MARPOL Annex VI in order to ensure the methodology and processes are in place prior to the beginning of the ship's first reporting period. Confirmation of compliance shall be provided to and retained on board the ship. [For a ship of 5,000 gross tonnage and above which falls into the categories as indicated in regulations 26.3 of MARPOL Annex VI: .1 on or before 1 January 2023, the SEEMP shall include contents as specified in regulation 26.3, including methodology to calculate the attained annual CII, the required annual operational CII, implementation plan with regard to the required annual operational CII and a procedure for self-evaluation and improvement; .2 for a ship rated as D for three consecutive years or rated as E, in accordance with regulation 28 of MARPOL Annex VI, the SEEMP shall be reviewed in accordance with regulation 28.8 of this Annex to include a plan of corrective actions to achieve the required annual operational CII; and .3 the SEEMP shall be subject to verification and company audits taking into account the guidelines to be adopted by the Organization. The Administration shall ensure that for each ship to which regulation 28 applies, the SEEMP complies with regulation 26.3.1 of this Annex. This shall be done prior to 1 January 2023. Confirmation of compliance shall be provided to, and retained on board, the ship.	MARPOL Annex VI, regulation 5.4.5, [5.4.6 26, 27 and 28]; MEPC.1/Circ.795/Rev.5; MEPC.1/Circ.876 [Note: an updated Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP) is expected to be considered by MEPC 78]

No.	Contents	Reference
	Note: the amendments to MARPOL Annex VI, as adopted by resolution MEPC.328(76), are expected to come into force on 1/11/2022]	
	International Air Pollution Prevention Certificate Ships constructed before the date of entry into force of the Protocol of 1997 shall be issued with an International Air Pollution Prevention Certificate. Any ship of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties and platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties to the Protocol of 1997 shall be issued with an International Air Pollution Prevention Certificate.	MARPOL Annex VI, regulation 6
	International Energy Efficiency Certificate An International Energy Efficiency Certificate for the ship shall be issued after a survey in accordance with the provisions of regulation 5.4 to any ships of 400 gross tonnage and above before that ship may engage in voyages to ports or offshore terminals under the jurisdiction of other Parties.	MARPOL Annex VI, regulation 6
	Statement of Compliance – Fuel Oil Consumption Reporting [and operation carbon intensity rating] From calendar year 2019, each ship of 5,000 gross tonnage and above shall collect the data specified in appendix IX to MARPOL Annex VI, for that and each subsequent calendar year or portion thereof, as appropriate. Upon receipt of reported data pursuant to regulation [27] of MARPOL ANNEX VI, the Administration or any organization duly authorized by it shall determine whether the data has been reported in accordance with regulation [27] and, if so, issue a Statement of Compliance related to fuel oil consumption to the ship in accordance with the provisions of regulation 6 of MARPOL ANNEX VI. In every case, the Administration assumes full responsibility for this Statement of Compliance, according to the methodology included in the SEEMP. [After the end of calendar year 2023 and after the end of each following calendar year, each ship of 5,000 gross tonnage and above which falls into the categories indicated in regulation 28 of MARPOL Annex VI shall calculate the attained annual operational CII over a 12-month period from 1 January to 31 December for the preceding calendar year, using the data collected in accordance with regulation 27 of this Annex, taking into account the guidelines to be developed by the Organization. Upon receipt of reported data pursuant to	MARPOL Annex VI, regulations 6, [27and 28]

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	regulation 27.3 of this Annex and attained annual operational CII pursuant to regulation 28.2 of this Annex, the Administration or any organization duly authorized by it shall verify data and determine the operational carbon intensity rating of the ship, in accordance with the provisions of regulation 6 of the MARPOL Annex VI and, when appropriate, issue a Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating to the ship no later than 5 months from the beginning of the calendar year, upon determination and verification pursuant to regulations 6.6.1 to 6.6.3 of the Annex. In every case, the Administration assumes full responsibility for this Statement of Compliance.] The Statement of Compliance shall be drawn up in a form corresponding to the model given in appendix X to MARPOL Annex VI. [Note: the amendments to MARPOL Annex VI, as adopted by resolution MEPC.328(76), are expected to come into force on 1/11/2022].	
	Ozone-depleting substances record book Each ship subject to MARPOL Annex VI, regulation 6.1 that has rechargeable systems that contain ozone-depleting substances shall maintain an ozone-depleting substances record book.	MARPOL Annex VI, regulation 12.6
	Logbook or electronic record book – nitrogen oxides emission The tier and on/off status of marine diesel engines installed on board a ship to which MARPOL Annex VI, regulation 13.5.1 applies which are certified to both Tier II and Tier III or which are certified to Tier II only shall be recorded in such logbook or electronic record book, as prescribed by the Administration at entry into and exit from a NOX Tier III emission control area, or when the on/off status changes within such an area, together with the date, time and position of the ship.	MARPOL Annex VI, regulations 13.5.1 and 13.5.3
	Fuel oil changeover procedure and logbook (record of fuel changeover) Those ships using separate fuel oils to comply with MARPOL Annex VI, regulation 14.3 and entering or leaving an emission control area shall carry a written procedure showing how the fuel oil changeover is to be done. The volume of low-sulphur fuel oils in each tank as well as the date, time and position of the ship when any fuel oil changeover operation is completed prior to the entry into an emission control area or commenced after exit from such an area shall be recorded in such logbook	MARPOL Annex VI, regulation 14.6

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	or electronic record book as prescribed by the Administration.	
	Manufacturer's operating manual for incinerators Incinerators installed in accordance with the requirements of MARPOL Annex VI, regulation 16.6.1 shall be provided with a manufacturer's operating manual, which is to be retained with the unit.	MARPOL Annex VI, regulation 16.7
	Bunker delivery note and representative sample Bunker delivery note and representative sample of the fuel oil delivered shall be kept on board in accordance with requirements of MARPOL Annex VI, regulations 18.6 and 18.8.1.	MARPOL Annex VI, regulations 18.6 and 18.8.1
	EEDI Technical File Applicable to ships [and the categories as specified in regulation 22.1 of MARPOL Annex VI]. [EEDI Technical File contains the information necessary for the calculation of the attained EEDI and that shows the process of calculation. Note: the amendments to MARPOL Annex VI, as adopted by resolution MEPC.328(76), are expected to come into force on 1/11/2022].	MARPOL Annex VI, [regulation 22]
	[EEXI Technical File Applicable to ships and the categories as specified in regulation 23.1 of MARPOL Annex VI. EEXI Technical File contains the information necessary for the calculation of the attained EEXI and that shows the process of the calculation. Note: the amendments to MARPOL Annex VI, as adopted by resolution MEPC.328(76), are expected to come into force on 1/11/2022].	[MARPOL Annex VI, regulation 23]
	Technical File Every marine diesel engine installed on board a ship shall be provided with a Technical File. The Technical File shall be prepared by the applicant for engine certification and approved by the Administration, and is required to accompany an engine throughout its life on board ships. The Technical File shall contain the information as specified in paragraph 2.4.1 of the NO_X Technical Code, 2008.	NO_X Technical Code 2008, paragraph 2.3.4
	Record Book of Engine Parameters	NO_X Technical Code 2008,

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	Where the Engine Parameter Check method in accordance with paragraph 6.2 of the NO_X Technical Code, 2008 is used to verify compliance, if any adjustments or modifications are made to an engine after its pre-certification, a full record of such adjustments or modifications shall be recorded in the engine's record book or electronic record book of engine parameters.	paragraphs 2.3.7 and 6.2.2.7.1
	Certificates for masters, officers or ratings Certificates for masters, officers or ratings shall be issued to those candidates who, to the satisfaction of the Administration, meet the requirements for service, age, medical fitness, training, qualifications and examinations in accordance with the appropriate provisions of the 1978 STCW Convention and STCW Code. Formats of certificates are given in section A-I/2 of the STCW Code. Certificates must be kept available in their original form on board the ships on which the holder is serving. Fishing vessel personnel serving on board seagoing fishing vessels shall be certificated in accordance with the provisions of STCW-F Convention 1995. Formats of certificates are given in appendices 1, 2 and 3 of the Convention.	STCW 1978, article VI, regulation I/2; STCW Code, section A-I/2 STCW-F 1995, article 6, regulation 3
	Records of daily hours of rest Records of daily hours of rest of seafarers shall be maintained on board.	STCW Code, section A-VIII/1; IMO/ILO Guidelines for the development of tables of seafarers' shipboard working arrangements and formats of records of seafarers' hours of work or hours of rest
	International Anti-fouling System Certificate Ships of 400 GT and above engaged in international voyages, excluding fixed or floating platforms, FSUs and FPSOs, shall be issued after inspection and survey an international Anti-fouling System Certificate together with a Record of Anti-fouling Systems.	AFS 2001, regulation 2(1) of annex 4
	Declaration on Anti-fouling System Ships of 24 m or more in length, but less than 400 GT engaged in international voyages, excluding fixed or floating platforms, FSUs, and FPSOs, shall carry a declaration signed by the owner or owner's authorized agents. Such a declaration shall be accompanied by appropriate documentation (such as a paint receipt or a contractor invoice) or contain appropriate endorsement.	AFS 2001, regulation 5(1) of annex 4

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	International Ballast Water Management Certificate Ships of 400 gross tonnage and above to which the BWM 2004 applies, excluding floating platforms, FSUs and FPSOs, shall be issued the certificate after successful completion of a survey conducted in accordance with regulation E-1.	BWM 2004, regulation E-2
	Ballast water management plan Each ship shall have on board and implement a ballast water management plan. Such a plan shall be approved by the Administration taking into account guidelines developed by the Organization.	BWM 2004, regulation B-1; resolution MEPC.127(53), as amended by resolution MEPC.306(73)
	Ballast water record book Each ship shall have on board a ballast water record book that may be an electronic record system, or that may be integrated into another record book or system and which shall at least contain the information specified in appendix II of the Convention. The ballast water record book entries shall be maintained on board the ship for a minimum period of two years after the last entry has been made and thereafter in the Company's control for a minimum period of three years.	BWM 2004, Regulation B-2
	Type Approval of Certificate for Ballast Water Management System (BWMS) A copy of Type Approval Certificate shall be carried on board a ship fitted with this ballast water management system, for inspection on board the ship. If the Type Approval Certificate is issued based on approval by another Administration, reference to that Type Approval Certificate shall be made.	BWMS Code (resolution MEPC.300(72)); resolutions MEPC.125(53), MEPC.174(58) and MEPC.279(70)
	Certificate of insurance or other financial security in respect of civil liability for bunker oil pollution damage Certificate attesting that insurance or other financial security is in force in accordance with the provisions of this Convention shall be issued to each ship having a gross tonnage greater than 1,000 after the appropriate authority of a State Party has determined that the requirements of article 7, paragraph 1 have been complied with. With respect to a ship registered in a State Party such certificate shall be issued or certified by the appropriate authority of the State of the ship's registry; with respect to a ship not registered in a State Party it may be issued or certified by the appropriate authority of any State Party. A State Party may authorize either an institution or an organization recognized by it to issue the certificate referred to in article 7, paragraph 2. This	Bunkers 2001, article 7

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	compulsory insurance certificate shall be in the form of the model set out in the annex to the Convention.	
	Certificate of insurance or other financial security in respect of liability for the removal of wrecks Certificate attesting that insurance or other financial security is in force in accordance with the provisions of the Convention shall be issued to each ship of 300 gross tonnage and above by the appropriate authority of the State of the ship's registry after determining that the requirements of article 12.1 have been complied with. With respect to a ship registered in a State Party, such certificate shall be issued or certified by the appropriate authority of the State of the ship's registry; with respect to a ship not registered in a State Party it may be issued or certified by the appropriate authority of any State Party. This compulsory insurance certificate shall be in the form of the model set out in the annex to the Convention.	Nairobi WRC 2007, article 12
2	**In addition to the certificates listed in section 1 above, passenger ships shall carry:**	
	Passenger Ship Safety Certificate A certificate called a Passenger Ship Safety Certificate shall be issued after inspection and survey to a passenger ship which complies with the requirements of chapters II-1, II-2, III, IV and V and any other relevant requirements of SOLAS 1974. A Record of Equipment for the Passenger Ship Safety Certificate (Form P) shall be permanently attached.	SOLAS 1974, regulation I/12; SOLAS PROT 1988, regulation I/12
	Decision support system for masters In all passenger ships, a decision support system for emergency management shall be provided on the navigation bridge.	SOLAS 1974, regulation III/29
	Search and rescue cooperation plan Passenger ships to which chapter I of the Convention applies shall have on board a plan for cooperation with appropriate search and rescue services in event of an emergency.	SOLAS 1974, regulation V/7.3
	List of operational limitations Passenger ships to which chapter I of the Convention applies shall keep on board a list of all limitations on the operation of the ship, including exemptions from any of the SOLAS regulations, restrictions in operating areas, weather restrictions, sea state restrictions, restrictions in permissible loads, trim, speed and any other limitations, whether imposed by the Administration or established during the design or the building stages.	SOLAS 1974, regulation V/30

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	Special Trade Passenger Ship Safety Certificate, Special Trade Passenger Ship Space Certificate A Special Trade Passenger Ship Safety Certificate issued under the provisions of the Special Trade Passenger Ships Agreement, 1971. A certificate called a Special Trade Passenger Ship Space Certificate shall be issued under the provisions of the Protocol on Space Requirements for Special Trade Passenger Ships, 1973.	STP 71, rule 5 SSTP 73, rule 5
	Certificate of insurance or other financial security in respect of liability for the death of and personal injury to passengers A certificate attesting that insurance or other financial security is in force in accordance with the provisions of this Convention shall be issued to each ship that is licensed to carry more than 12 passengers, after the appropriate authority of a State Party has determined that the requirements of article 4*bis* paragraph 1 have been complied with. With respect to a ship registered in a State Party, such certificate shall be issued or certified by the appropriate authority of the State of the ship's registry; with respect to a ship not registered in a State Party, it may be issued or certified by the appropriate authority of any State Party. A State Party may authorize an institution or an organization recognized by it to issue the certificate. The certificate shall be in the form of the model set out in the annex to the Convention. Pursuant to resolution A.988(24), States are recommended to ratify the Athens Protocol as soon as possible with the reservation that they reserve the right to issue and accept insurance certificates with such special exceptions and limitations as the insurance market conditions at the time of issue of the certificate may necessitate, examples being the biochemical clause and terrorism-related clauses (Circular Letter No.2758 refers).	PAL 1974 as modified by PAL PROT 2002, article 4*bis*; resolution A.988(24); Circular Letter No.2758
3	**In addition to the certificates listed in section 1 above, cargo ships shall carry:**	
	Cargo Ship Safety Construction Certificate A certificate called a Cargo Ship Safety Construction Certificate shall be issued after survey to a cargo ship of 500 gross tonnage and over which satisfies the requirements for cargo ships on survey, set out in regulation I/10 of SOLAS 1974, and complies with the applicable requirements of chapters II-1 and II-2, other	SOLAS 1974, regulation I/12; SOLAS PROT 1988, regulation I/12

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	than those relating to fire-extinguishing appliances and fire-control plans.	
	Cargo Ship Safety Equipment Certificate A certificate called a Cargo Ship Safety Equipment Certificate shall be issued after survey to a cargo ship of 500 gross tonnage and over which complies with the relevant requirements of chapters II-1 and II-2, III and V and any other relevant requirements of SOLAS 1974. A Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E) shall be permanently attached.	SOLAS 1974, regulation I/12; SOLAS PROT 1988, regulation I/12
	Cargo Ship Safety Radio Certificate A certificate called a Cargo Ship Safety Radio Certificate shall be issued after survey to a cargo ship of 300 gross tonnage and over, fitted with a radio installation, including those used in life-saving appliances, which complies with the requirements of chapter IV and any other relevant requirements of SOLAS 1974. A Record of Equipment for the Cargo Ship Safety Radio Certificate (Form R) shall be permanently attached.	SOLAS 1974, regulation I/12, as amended by the GMDSS amendments; SOLAS PROT 1988, regulation I/12
	Cargo Ship Safety Certificate A certificate called a Cargo Ship Safety Certificate may be issued after survey to a cargo ship which complies with the relevant requirements of chapters II-1, II-2, III, IV and V and other relevant requirements of SOLAS 1974 as modified by the 1988 SOLAS Protocol, as an alternative to the Cargo Ship Safety Construction Certificate, Cargo Ship Safety Equipment Certificate and Cargo Ship Safety Radio Certificate. A Record of Equipment for the Cargo Ship Safety Certificate (Form C) shall be permanently attached.	SOLAS PROT 1988, regulation I/12
	Ship Structure Access Manual This regulation applies to oil tankers of 500 gross tonnage and over and bulk carriers, as defined in regulation IX/1, of 20,000 gross tonnage and over, constructed on or after 1 January 2006. A ship's means of access to carry out overall and close-up inspections and thickness measurements shall be described in a Ship Structure Access Manual approved by the Administration, an updated copy of which shall be kept on board.	SOLAS 1974, regulation II-1/3-6
	Cargo Information The shipper shall provide the master or his representative with appropriate information, confirmed in writing, on the cargo, in advance of loading. In bulk carriers, the density of the cargo shall be provided in the above information.	SOLAS 1974, regulations VI/2 and XII/10; MSC/Circ.663

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	Bulk Carrier Booklet To enable the master to prevent excessive stress in the ship's structure, the ship loading and unloading solid bulk cargoes shall be provided with a booklet referred to in SOLAS regulation VI/7.2. The booklet shall be endorsed by the Administration or on its behalf to indicate that SOLAS regulations XII/4, 5, 6 and 7, as appropriate, are complied with. As an alternative to a separate booklet, the required information may be contained in the stability information.	SOLAS 1974, regulations VI/7 and XII/8; BLU Code
	Document of authorization for the carriage of grain and grain loading manual A document of authorization shall be issued for every ship loaded in accordance with the regulations of the International Code for the Safe Carriage of Grain in Bulk. The document shall accompany or be incorporated into the grain loading manual provided to enable the master to meet the stability requirements of the Code.	SOLAS 1974, regulation VI/9; Grain Code, section 3
	Enhanced survey report file Bulk carriers and oil tankers shall have a survey report file and supporting documents complying with paragraphs 6.2 and 6.3 of annex A/annex B, part A/part B, 2011 ESP Code.	SOLAS 1974, regulation XI-1/2; 2011 ESP Code (resolution A.1049(27), as amended)
	Dedicated Clean Ballast Tank Operation Manual Every product carrier of 40,000 tonnes deadweight and above delivered on or before 1 June 1982, operating with dedicated clean ballast tanks shall be provided with a Dedicated Clean Ballast Tank Operation Manual detailing the system and specifying operational procedures. Such a Manual shall be to the satisfaction of the Administration and shall contain all the information set out in the Specifications referred to in sub-paragraph 8.2 of MARPOL Annex I regulation 18. If an alteration affecting the dedicated clean ballast tank system is made, the Operation Manual shall be revised accordingly.	MARPOL Annex I, regulation 18.8; resolution A.495(XII)
	Condition Assessment Scheme (CAS) Statement of Compliance, CAS Final Report and Review Record A Statement of Compliance shall be issued by the Administration to every oil tanker which has been surveyed in accordance with the requirements of the Condition Assessment Scheme (CAS) and found to be in compliance with these requirements. In addition, a copy of the CAS Final Report which was reviewed by the Administration for the issue of the Statement of Compliance and a copy of the relevant Review Record shall be placed on board to accompany the Statement of Compliance.	MARPOL Annex I, regulations 20 and 21; resolution MEPC.94(46), as amended by resolutions MEPC.99(48), MEPC.112(50), MEPC.131(53), resolution MEPC.155(55), and MEPC.236(65)

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	Subdivision and stability information Every oil tanker to which regulation 28 of Annex I of MARPOL applies shall be provided in an approved form with information relative to loading and distribution of cargo necessary to ensure compliance with the provisions of this regulation and data on the ability of the ship to comply with damage stability criteria as determined by this regulation.	MARPOL Annex I, regulation 28
	Record of oil discharge monitoring and control system for the last ballast voyage Subject to the provisions of paragraphs 4 and 5 of regulation 3 of MARPOL Annex I, every oil tanker of 150 gross tonnage and above shall be equipped with an oil discharge monitoring and control system approved by the Administration. The system shall be fitted with a recording device to provide a continuous record of the discharge in litres per nautical mile and total quantity discharged, or the oil content and rate of discharge. The record shall be identifiable as to time and date and shall be kept for at least three years.	MARPOL Annex I, regulation 31
	Oil Discharge Monitoring and Control (ODMC) Operational Manual Every oil tanker fitted with an Oil Discharge Monitoring and Control system shall be provided with instructions as to the operation of the system in accordance with an operational manual approved by the Administration.	MARPOL Annex I, regulation 31; resolution A.496(XII); resolution A.586(14), as amended by resolution MEPC.24(22); resolution MEPC.108(49), as amended by resolution MEPC.240(65)
	Crude Oil Washing Operation and Equipment Manual (COW Manual) Every oil tanker operating with crude oil washing systems shall be provided with an Operations and Equipment Manual detailing the system and equipment and specifying operational procedures. Such a Manual shall be to the satisfaction of the Administration and shall contain all the information set out in the specifications referred to in regulation 35 of Annex I of MARPOL.	MARPOL Annex I, regulation 35; resolution MEPC.81(43)
	STS operations plan and records of STS operations Any oil tanker involved in STS operations shall carry on board a plan prescribing how to conduct STS operations (STS operations plan) not later than the date of the first annual, intermediate or renewal survey of the ship to be carried out on or after 1 January 2011. Each oil tanker's STS operations plan shall be approved by the	MARPOL Annex I, regulation 41

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	Administration. The STS operations plan shall be written in the working language of the ship. Records of STS operations shall be retained on board for three years and be readily available for inspection.	
	VOC Management Plan A tanker carrying crude oil, to which MARPOL Annex VI, regulation 15.1 applies, shall have on board and implement a VOC Management Plan.	MARPOL Annex VI, regulation 15.6
	Document of approval for the stability instrument All ships subject to the IBC, IGC, BCH and GC Codes should be fitted with a stability instrument capable of verifying compliance with intact and damage stability approved by the Administration, at the first scheduled renewal survey of the ship on or after 1 January 2016, but not later than 1 January 2021, having regard to the performance standards recommended by the Organization. The Administration should issue a document of approval for the stability instrument.	IBC Code para. 2.2.6; IGC Code para. 2.2.6; BCH code para. 2.2.1.2; GC Code para. 2.2.4; 2008 IS Code; MSC.1/Circ.1229; MSC.1/Circ.1461
	Certificate of insurance or other financial security in respect of civil liability for oil pollution damage A certificate attesting that insurance or other financial security is in force shall be issued to each ship carrying more than 2,000 tonnes of oil in bulk as cargo. It shall be issued or certified by the appropriate authority of the State of the ship's registry after determining that the requirements of article VII, paragraph 1, of the CLC Convention have been complied with.	CLC 1969, article VII
	Certificate of insurance or other financial security in respect of civil liability for oil pollution damage A certificate attesting that insurance or other financial security is in force in accordance with the provisions of the 1992 CLC Convention shall be issued to each ship carrying more than 2,000 tonnes of oil in bulk as cargo after the appropriate authority of a Contracting State has determined that the requirements of article VII, paragraph 1, of the Convention have been complied with. With respect to a ship registered in a Contracting State, such certificate shall be issued by the appropriate authority of the State of the ship's registry; with respect to a ship not registered in a Contracting State, it may be issued or certified by the appropriate authority of any Contracting State.	CLC 1992, article VII
4	**In addition to the certificates listed in sections 1 and 3 above, where appropriate, any ship carrying noxious liquid chemical substances in bulk shall carry:**	

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	International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk (NLS Certificate) An international pollution prevention certificate for the carriage of noxious liquid substances in bulk (NLS Certificate) shall be issued, after survey in accordance with the provisions of regulation 8 of Annex II of MARPOL, to any ship carrying noxious liquid substances in bulk and which is engaged in voyages to ports or terminals under the jurisdiction of other Parties to MARPOL. In respect of chemical tankers, the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk and the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, issued under the provisions of the Bulk Chemical Code and International Bulk Chemical Code, respectively, shall have the same force and receive the same recognition as the NLS Certificate.	MARPOL Annex II, regulation 9
	Cargo Record Book Ships carrying noxious liquid substances in bulk shall be provided with a Cargo Record Book, whether as part of the ship's official logbook, as an electronic record book which shall be approved by the Administration taking into account Guidelines developed by the Organization, or otherwise, in the form specified in appendix II to Annex II.	MARPOL Annex II, regulation 15.1
	Procedures and Arrangements Manual (P & A Manual) Every ship certified to carry noxious liquid substances in bulk shall have on board a Procedures and Arrangements Manual approved by the Administration.	MARPOL Annex II, regulation 14; resolution MEPC.18(22), as amended by resolution MEPC.62(35)
	Shipboard marine pollution emergency plan for noxious liquid substances Every ship of 150 gross tonnage and above certified to carry noxious liquid substances in bulk shall carry on board a shipboard marine pollution emergency plan for noxious liquid substances approved by the Administration.	MARPOL Annex II, regulation 17; resolution MEPC.85(44), as amended by resolution MEPC.137(53)
5	**In addition to the certificates listed in sections 1 and 3 above, where applicable, any chemical tanker shall carry:**	
	Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk A certificate called a Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, the model form of which is set out in the appendix to the Bulk Chemical Code, should be issued after an initial or periodical survey to a chemical tanker engaged in	BCH Code, section 1.6

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	international voyages which complies with the relevant requirements of the Code. *Note: The Code is mandatory under Annex II of MARPOL for chemical tankers constructed before 1 July 1986.* **Or**	
	International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk A certificate called an International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, the model form of which is set out in the appendix to the International Bulk Chemical Code, should be issued after an initial or periodical survey to a chemical tanker engaged in international voyages, which complies with the relevant requirements of the Code. *Note: The Code is mandatory under both chapter VII of SOLAS 1974 and Annex II of MARPOL for chemical tankers constructed on or after 1 July 1986.*	IBC Code, section 1.5
6	**In addition to the certificates listed in sections 1 and 3 above, where applicable, any gas carrier shall carry:**	
	Certificate of Fitness for the Carriage of Liquefied Gases in Bulk A certificate called a Certificate of Fitness for the Carriage of Liquefied Gases in Bulk, the model form of which is set out in the appendix to the Gas Carrier Code, should be issued after an initial or periodical survey to a gas carrier which complies with the relevant requirements of the Code.	GC Code, section 1.6
	International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk A certificate called an International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk, the model form of which is set out in the appendix to the International Gas Carrier Code, should be issued after an initial or periodical survey to a gas carrier which complies with the relevant requirements of the Code. *Note: The Code is mandatory under chapter VII of SOLAS 1974 for gas carriers constructed on or after 1 July 1986.*	IGC Code, section 1.4
	Cargo Operations Manuals The approved cargo operations manuals, including relevant procedures for ESD system and emergency isolating operations of PRVs shall be provided on board.	IGC Code, regulations 18.2.1 and 18.10.3.4

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7	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any high-speed craft shall carry:**	
	High-Speed Craft Safety Certificate A certificate called a High-Speed Craft Safety Certificate shall be issued after completion of an initial or renewal survey to a craft which complies with the requirements of the 1994 HSC Code or the 2000 HSC Code, as appropriate.	SOLAS 1974, regulation X/3; 1994 HSC Code, section 1.8; 2000 HSC Code, section 1.8
	Permit to Operate High-Speed Craft A certificate called a Permit to Operate High-Speed Craft shall be issued to a craft which complies with the requirements set out in paragraphs 1.2.2 to 1.2.7 of the 1994 HSC Code or the 2000 HSC Code, as appropriate.	1994 HSC Code, section 1.9; 2000 HSC Code, section 1.9
8	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any ship carrying dangerous goods shall carry:**	
	Document of compliance with the special requirements for ships carrying dangerous goods The Administration shall provide the ship with an appropriate document as evidence of compliance of construction and equipment with the requirements of regulation II-2/19 of SOLAS 1974. Certification for dangerous goods, except solid dangerous goods in bulk, is not required for those cargoes specified as class 6.2 and 7 and dangerous goods in limited quantities.	SOLAS 1974, regulation II-2/19.4
9	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any ship carrying dangerous goods in packaged form shall carry:**	
	Transport information Transport information relating to the carriage of dangerous goods in packaged form and the container/vehicle packing certificate shall be in accordance with the relevant provisions of the IMDG Code and shall be made available to the person or organization designated by the port State authority.	SOLAS 1974, regulation VII/4.1
	Dangerous goods manifest or stowage plan Each ship carrying dangerous goods in packaged form shall have a special list or manifest setting forth, in accordance with the classification set out in the IMDG Code, the dangerous goods on board and the location thereof. Each ship carrying dangerous goods in solid form in bulk shall have a list or manifest setting forth the dangerous goods on board and the location thereof. A detailed stowage plan which identifies by class and	SOLAS 1974, regulations VII/4.2 and VII/7-2.2; MARPOL Annex III, regulation 4

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	sets out the location of all dangerous goods on board may be used in place of such a special list or manifest. A copy of one of these documents shall be made available before departure to the person or organization designated by the port State authority.	
10	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any ship carrying INF cargo shall carry:**	
	International Certificate of Fitness for the Carriage of INF Cargo A ship carrying INF cargo shall comply with the requirements of the International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships (INF Code) in addition to any other applicable requirements of the SOLAS regulations and shall be surveyed and be provided with the International Certificate of Fitness for the Carriage of INF Cargo.	SOLAS 1974, regulation VII/16; INF Code (resolution MSC.88(71), as amended), paragraph 1.3
11	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any Nuclear Ship shall carry:**	
	Operating manual for nuclear power plant A fully detailed operating manual shall be prepared for the information and guidance of the operating personnel in their duties on all matters relating to the operation of the nuclear power plant having an important bearing on safety. The Administration, when satisfied, shall approve such operating manual and a copy shall be kept on board the ship. The operating manual shall always be kept up to date.	SOLAS 1974, regulation VIII/8
	A Nuclear Cargo Ship Safety Certificate or Nuclear Passenger Ship Safety Certificate, in place of the Cargo Ship Safety Certificate or Passenger Ship Safety Certificate, as appropriate. Every nuclear-powered ship shall be issued with the certificate required by SOLAS chapter VIII.	SOLAS 1974, regulation VIII/10
12	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any ship operating in polar waters shall carry:**	
	Polar Ship Certificate Every ship to which the Polar Code applies shall have on board a valid Polar Ship Certificate. The certificate shall include a supplement recording equipment required by the Code.	Polar Code, part I-A Section 1.3

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	Polar Water Operational Manual (PWOM) Every ship to which the Polar Code applies shall have on board a Polar Water Operational Manual (PWOM) as required in part I-A section 2.3 of the Code.	Polar Code, part I-A section 2.3
13	**In addition to the certificates listed in sections 1, and 2 or 3 above, where applicable, any ship using gases or other low-flashpoint fuels shall carry:**	
	Maintenance procedures, emergency procedures and operational procedures The maintenance procedures and information for all gas-related installations, and the suitable emergency procedures, and the operational procedures including a suitably detailed fuel handling manual, shall be provided on board.	IGF Code, regulation 18.2
Other certificates and documents which are not mandatory		
	Special purpose ships	
	Special Purpose Ship Safety Certificate In addition to SOLAS certificates as specified in paragraph 7 of the Preamble of the 1983 SPS Code and 2008 SPS Code, a Special Purpose Ship Safety Certificate should be issued after survey in accordance with the provisions of paragraph 1.6 of the 1983 SPS Code and 2008 SPS Code. The duration and validity of the certificate should be governed by the respective provisions for cargo ships in SOLAS 1974. If a certificate is issued for a special purpose ship of less than 500 gross tonnage, this certificate should indicate to what extent relaxations in accordance with 1.2 were accepted. The 2008 SPS Code applies to every special purpose ship of not less than 500 GT certified on or after 13 May 2008.	1983 SPS Code (resolution A.534(13), as amended); 2008 SPS Code (resolution MSC.266(84), as amended), SOLAS 1974, regulation I/12; SOLAS PROT 1988, regulation I/12
	Offshore support vessels	
	Offshore Supply Vessel Document of Compliance The Document of Compliance should be issued when satisfied that the vessel complies with the provisions of the Guidelines for the design and construction of offshore supply vessels, 2006.	Resolution MSC.235(82), as amended by resolution MSC.335(90)

No.	Contents	Reference
	Certificate of Fitness for Offshore Support Vessels A Certificate of Fitness, the model form of which is set out in the appendix to the Code for the transport and handling of hazardous and noxious liquid substances in bulk on offshore support vessels (OSV Chemical Code), should be issued and suitably endorsed to certify compliance with the provisions of the OSV Chemical Code after an initial survey to an offshore support vessel to which the OSV Chemical Code applies. The certificate issued under the OSV Chemical Code should have the same force and receive the same recognition as the certificate issued under regulation 7 of MARPOL Annex II and regulations VII/10 and VII/13 of SOLAS.	OSV Chemical Code (resolution A.1122(30)) MARPOL Annex II, regulation 11.2
	Diving systems	
	Diving System Safety Certificate A certificate should be issued either by the Administration or any person or organization duly authorized by it after survey or inspection to a diving system which complies with the requirements of the Code of Safety for Diving Systems. In every case, the Administration should assume full responsibility for the certificate.	Resolution A. 831(19), as amended by resolution MSC.185(79), section 1.6
	Passenger submersible craft	
	Safety Compliance Certificate for Passenger Submersible Craft Applicable to submersible craft adapted to accommodate passengers and intended for underwater excursions with the pressure in the passenger compartment at or near one atmosphere. A Design and Construction Document issued by the Administration should be attached to the Safety Compliance Certificate.	MSC/Circ.981, as amended by MSC/Circ.1125
	Dynamically supported craft	
	Dynamically Supported Craft Construction and Equipment Certificate To be issued after survey carried out in accordance with paragraph 1.5.1(a) of the Code of Safety for Dynamically Supported Craft.	DSC Code (resolution A.373(X), as amended) section 1.6
	Mobile offshore drilling units	

No.	Contents	Reference
	Mobile Offshore Drilling Unit Safety Certificate To be issued after survey carried out in accordance with the provisions of the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1979, or, for units constructed on or after 1 May 1991, but before 1 January 2012, the Code for the Construction and Equipment of Drilling Units, 1989, or for units constructed on or after 1 January 2012, the Code for the Construction and Equipment of Drilling Units, 2009.	1979 MODU Code (resolution A.414(XI), as amended) section 1.6; 1989 MODU Code (resolution A.649(16), as amended) section 1.6; 2009 MODU Code (resolution A.1023(26), as amended), section 1.6
	Wing-in-ground (WIG) craft	
	Wing-in-ground Craft Safety Certificate A certificate called a WIG Craft Safety Certificate should be issued after completion of an initial or renewal survey to a craft, which complies with the provisions of the *Guidelines for wing-in-ground craft*.	MSC.1/Circ.1592
	Permit to Operate WIG Craft A permit to operate should be issued by the Administration to certify compliance with the provisions of the *Guidelines for wing-in-ground craft*.	MSC.1/Circ.1592
	Noise levels	
	Noise survey report Applicable to existing ships to which SOLAS II-1/3-12 does not apply. A noise survey report should be made for each ship in accordance with the Code on Noise Levels on Board Ships.	Resolution A.468(XII), section 4.3

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ANNEX 30

DRAFT AMENDMENTS TO THE IGC CODE

Chapter 6 Materials of construction and quality control

6.4 Requirements for metallic materials

6.4.1 General requirements for metallic materials

Table 6.3

1 Table 6.3 is amended as follows:

"**Table 6.3**

PLATES, SECTIONS AND FORGINGS See note 1 FOR CARGO TANKS, SECONDARY BARRIERS AND PROCESS PRESSURE VESSELS FOR DESIGN TEMPERATURES BELOW -55°C AND DOWN TO -165°C See note 2 Maximum thickness 25 mm See notes 3 and 4		
Minimum design temperature (°C)	Chemical composition See note 5 and heat treatment	Impact test temperature (°C)
-60	1.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See note 6	-65
-65	2.25% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See notes 6 and 7	-70
-90	3.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See notes 6 and 7	-95
-105	5% nickel steel – normalized or normalized and tempered or quenched and tempered See notes 6, 7 and 8	-110
-165	9% nickel steel – double normalized and tempered or quenched and tempered See note 6	-196
-165	Austenitic steels, such as types 304, 304L, 316, 316L, 321 and 347 solution treated See note 9	-196
-165	High manganese austenitic steel – hot rolling and controlled cooling See notes 10 and 11	-196
-165	Aluminium alloys; such as type 5083 annealed	Not required
-165	Austenitic Fe-Ni alloy (36% nickel). Heat treatment as agreed	Not required
TENSILE AND TOUGHNESS (IMPACT) TEST REQUIREMENTS		
Sampling frequency		
◆ Plates	Each "piece" to be tested	
◆ Sections and forgings	Each "batch" to be tested	
Toughness (Charpy V-notch test)		
◆ Plates	Transverse test pieces. Minimum average energy value (KV) 27J	
◆ Sections and forgings	Longitudinal test pieces. Minimum average energy (KV) 41J	

Notes

1 The impact test required for forgings used in critical applications shall be subject to special consideration by the Administration.

2 The requirements for design temperatures below -165°C shall be specially agreed with the Administration.

3 For materials 1.5% Ni, 2.25% Ni, 3.5% Ni and 5% Ni, with thicknesses greater than 25 mm, the impact tests shall be conducted as follows:

Material thickness (mm)	Test temperature (°C)
25 < t ≤ 30	10°C below design temperature
30 < t ≤ 35	15°C below design temperature
35 < t ≤ 40	20°C below design temperature

The energy value shall be in accordance with the table for the applicable type of test specimen. For material thickness of more than 40 mm, the Charpy V-notch values shall be specially considered.

4 For 9% Ni steels, austenitic stainless steels, high manganese austenitic steels and aluminium alloys, thickness greater than 25 mm may be used.

5 The chemical composition limits shall be in accordance with recognized standards.

6 TMCP nickel steels will be subject to acceptance by the Administration.

7 A lower minimum design temperature for quenched and tempered steels may be specially agreed with the Administration.

8 A specially heat-treated 5% nickel steel, for example triple heat-treated 5% nickel steel, may be used down to -165°C, provided that the impact tests are carried out at -196°C.

9 The impact test may be omitted, subject to agreement with the Administration.

10 The use of the material shall be subject to the required conditions specified in the Guidelines developed by the Organization. [*]

11 The impact test may not be omitted for high manganese austenitic steel.

***

[*] Refer to the *Guidelines on the application of high manganese austenitic steel for cryogenic service* (MSC.1/Circ.1599/Rev.1).

ANNEX 31

DRAFT AMENDMENTS TO THE IGF CODE

PART A-1
SPECIFIC REQUIREMENTS FOR SHIPS USING NATURAL GAS AS FUEL

7 Material and general pipe design

Table 7.3

1 Table 7.3 is amended as follows:

"Table 7.3

PLATES, SECTIONS AND FORGINGS [1] FOR FUEL TANKS, SECONDARY BARRIERS AND PROCESS PRESSURE VESSELS FOR DESIGN TEMPERATURES BELOW MINUS 55°C AND DOWN TO MINUS 165°C [2] Maximum thickness 25 mm [3, 4]		
Minimum design temp. (°C)	Chemical composition see note 5 and heat treatment	Impact test temp. (°C)
-60	1.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP [6]	-65
-65	2.25% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP [6, 7]	-70
-90	3.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP [6, 7]	-95
-105	5% nickel steel – normalized or normalized and tempered or quenched and tempered [6, 7 and 8]	-110
-165	9% nickel steel – double normalized and tempered or quenched and tempered[6]	-196
-165	Austenitic steels, such as types 304, 304L, 316, 316L, 321 and 347 solution treated[9]	-196
-165	High manganese austenitic steel – hot rolling and controlled cooling [10 and 11]	-196
-165	Aluminium alloys; such as type 5083 annealed	Not required
-165	Austenitic Fe-Ni alloy (36% nickel). Heat treatment as agreed	Not required
TENSILE AND TOUGHNESS (IMPACT) TEST REGULATIONS		
Sampling frequency		
◆ Plates	Each "piece" to be tested	
◆ Sections and forgings	Each "batch" to be tested	
Toughness (Charpy V-notch test)		
◆ Plates	Transverse test pieces. Minimum average energy value (KV) 27J	
◆ Sections and forgings	Longitudinal test pieces. Minimum average energy (KV) 41J	

Notes

1. The impact test required for forgings used in critical applications shall be subject to special consideration by the Administration.

2. The regulations for design temperatures below -165°C shall be specially agreed with the Administration.

3. For materials 1.5% Ni, 2.25% Ni, 3.5% Ni and 5% Ni, with thicknesses greater than 25 mm, the impact tests shall be conducted as follows:

Material thickness (mm)	Test temperature (°C)
25 < t ≤ 30	10°C below design temperature
30 < t ≤ 35	15°C below design temperature
35 < t ≤ 40	20°C below design temperature

The energy value shall be in accordance with the table for the applicable type of test specimen. For material thickness of more than 40 mm, the Charpy V-notch values shall be specially considered.

4. For 9% Ni steels, austenitic stainless steels, high manganese austenitic steels and aluminium alloys, thickness greater than 25 mm may be used.

5. The chemical composition limits shall be in accordance with recognized standards.

6. Thermo-mechanical controlled processing (TMCP) nickel steels will be subject to acceptance by the Administration.

7. A lower minimum design temperature for quenched and tempered steels may be specially agreed with the Administration.

8. A specially heat-treated 5% nickel steel, for example triple heat-treated 5% nickel steel, may be used down to -165°C, provided that the impact tests are carried out at -196°C.

9. The impact test may be omitted subject to agreement with the Administration.

10 The use of the material shall be subject to the required conditions specified in the Guidelines developed by the Organization. *

11. The impact test may not be omitted for high manganese austenitic steel.

"

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* Refer to the *Guidelines on the application of high manganese austenitic steel for cryogenic service* (MSC.1/Circ.1599/Rev.1).

ANNEX 32

DRAFT AMENDMENTS TO SOLAS 1974
(NEW SOLAS CHAPTER XV TO MAKE THE IP CODE MANDATORY)

DRAFT MSC RESOLUTION

ADOPTION OF AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO article VIII(b) of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"), concerning the amendment procedure applicable to the annex to the Convention, other than to the provisions of chapter I,

HAVING CONSIDERED, at its [106th] session, amendments to the Convention proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on [1 January 2024], unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have notified the Secretary-General of their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on [1 July 2024] upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

5 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED

The following new draft chapter XV is added after existing chapter XIV:

"CHAPTER XV
SAFETY MEASURES FOR SHIPS CARRYING INDUSTRIAL PERSONNEL

Regulation 1
Definitions

For the purpose of this chapter:

1 *Industrial personnel (IP)* means all persons who are transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

2 *IP Code* means the International Code of Safety for Ships Carrying Industrial Personnel, as adopted by resolution MSC.[…]([…]), as may be amended, provided that amendments to the IP Code are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

3 *Offshore industrial activities* mean the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited, to exploration and exploitation of resources by the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities.

4 *HSC Code* means the International Code of Safety for High-Speed Craft, 2000, adopted by the Maritime Safety Committee of the Organization by resolution MSC.97(73), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

Regulation 2
General

1 Wherever in the IP Code a reference is made to the passenger ship requirements, the corresponding cargo ship requirements are deemed to be complied with.

2 For the purpose of this chapter, industrial personnel shall not be treated or considered as passengers.

3 Wherever in this chapter, or in the IP Code, the number of industrial personnel appears as a parameter, it shall be the aggregate number of industrial personnel, special personnel[6] and passengers carried on board, where the number of passengers shall not exceed 12.

[6] Refer to Code of Safety for Special Purpose Ships, 2008.

4 Notwithstanding the provisions of regulation 2.1 above, for high-speed craft to which chapter X applies and notwithstanding the provisions of chapters 2 to 12 and 18 of the HSC Code, a ship certified in accordance with the requirements of this chapter and the IP Code shall be deemed to have complied with the requirements of chapters 2 to 12 and 18 of the HSC Code.

Regulation 3
Application

1 Unless expressly provided otherwise, this chapter applies to cargo ships and high-speed cargo craft, of 500 gross tonnage and upwards, constructed on or after [date of entry into force] which carry more than 12 industrial personnel.

2 Cargo ships constructed before [date of entry into force], authorized by the Administration to carry more than 12 industrial personnel in accordance with the recommendations developed by the Organization,[2] shall comply with requirements III/1, III/2 (except for paragraph 2.1.7), IV/7 and IV/8 of the IP Code by the first intermediate or renewal survey, whichever occurs first, after [date of entry into force].

3 High-speed cargo craft constructed before [date of entry into force], authorized by the Administration to carry more than 12 industrial personnel in accordance with the recommendations developed by the Organization,[7] shall comply with the requirements III/1, III/2 (except for paragraph 2.1.7), V/7 and V/8 of the IP Code by the third periodical or first renewal survey, whichever occurs first, after [date of entry into force].

4 Cargo ships and high-speed cargo craft, irrespective of date of construction, which prior to the [date of entry into force] have not been authorized by the Administration to carry more than 12 industrial personnel based on the recommendations developed by the Organization,[2] shall comply and be certified in accordance with this chapter and the IP Code prior to the carriage of more than 12 industrial personnel on board.

Regulation 4
Application of other chapters

1 The regulations for cargo ships contained in the other chapters of the present Convention apply to ships described in regulation 3.1, except as modified by this chapter.

2 Notwithstanding the provisions of regulation 4.1 above, for high-speed craft to which the HSC Code applies, the regulations for cargo craft in that Code apply, except as modified by this chapter.

Regulation 5
Requirements

1 Ships and high-speed craft shall:

.1 be certified as a cargo ship or high-speed cargo craft in accordance with either chapter I or chapter VIII or chapter X, as applicable;

.2 meet the requirements of the IP Code; and

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[7] Refer to *Interim recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages* (resolution MSC.418(97)).

.3 in addition to the requirements of regulations I/8, I/9 and I/10 or of sections 1.5 to 1.9 of the HSC Code, as applicable, be surveyed and certified, as provided for in the IP Code.

2 Ships and high-speed craft to which this chapter applies, holding a certificate issued pursuant to the provisions of paragraph 1 above, shall be subject to the control established in regulations I/19 or XI-1/4 and section 1.10 of the HSC Code, as applicable. For this purpose, such certificates shall be treated as a certificate issued under regulations I/12 or I/13.

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ANNEX 33

DRAFT INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)

DRAFT MSC RESOLUTION

ADOPTION OF THE INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)

THE MARITIME SAFETY COMMITTEE,

RECALLING article 28(b) of the Convention on the International Maritime Organization concerning the function of the Committee,

RECOGNIZING the need for a mandatory code for the safe carriage of industrial personnel on ships and their safety during personnel transfer operations to and from other ships and/or offshore facilities,

NOTING resolution MSC.[…(106)], by which it adopted, inter alia, new SOLAS chapter XV of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"), to make the provisions of the International Code of Safety for Ships Carrying Industrial Personnel (IP Code) mandatory under the Convention,

HAVING CONSIDERED, at its [106th] session, the IP Code,

1 ADOPTS the IP Code, the text of which is set out in the annex to the present resolution;

2 INVITES Contracting Governments to the Convention to note that the IP Code will take effect on [1 July 2024] upon entry into force of SOLAS chapter XV of the Convention;

3 ALSO INVITES Contracting Governments to consider the voluntary application of the IP Code, as far as practicable, to ships of less than 500 gross tonnage and to ships not operating on international voyages;

4 REQUESTS the Secretary-General of the Organization to transmit certified copies of the present resolution and the text of the IP Code, contained in the annex, to all Contracting Governments to the Convention;

5 ALSO REQUESTS the Secretary-General of the Organization to transmit copies of the present resolution and the text of the IP Code contained in the annex to all Members of the Organization which are not Contracting Governments to the SOLAS Convention.

ANNEX

INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)

Content

Preamble

1 As the maritime offshore and energy sectors are expanding, new offshore industrial activities have emerged and have in turn created a growing demand on the shipping sectors' supporting industry offshore to provide for the safe carriage of industrial personnel to and from other ships and/or offshore facilities.

2 It is recognized that the safety standards in the existing IMO instruments do not fully cover specific risks of maritime operations within the offshore sectors, such as personnel transfer operations.

3 Furthermore, it is recognized that, at the time of developing this Code, industrial personnel are a special category of persons yet to be defined in regulation I/2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974.

4 However, the difficulties caused by the lack of a clear definition for industrial personnel and the lack of an international safety standards for the carriage of industrial personnel on board in the existing IMO instruments are also recognized.

5 The International Code of Safety for Ships Carrying Industrial Personnel (IP Code) has been developed to supplement existing IMO instruments in order to meet the demand from the offshore and energy sectors and overcome these difficulties. The Code, in addition to the cargo ship requirements in SOLAS regulations, provides an international standard of safety for ships carrying industrial personnel which will facilitate safe carriage and safe personnel transfer by addressing additional risks connected to such operations.

6 The Code has been developed for ships operating on international voyages as defined in SOLAS regulation I/2(d). However, it is recognized that the transport of a large number of industrial personnel will take place either within the confines of a particular coastal State or between a base port and an offshore installation outside territorial waters. To facilitate international movement and safe operations of ships carrying industrial personnel, Administrations are encouraged to apply this Code also to ships operating only on such voyages.

7 The Code applies to ships of 500 gross tonnage and upwards. However, it is recognized that ships below 500 gross tonnage may also carry an aggregated number of passengers, special personnel and industrial personnel in excess of 12. In such cases the Administration may apply the goals and functional requirements of the Code as far as practicable. If such ships are in compliance with the IP Code, Administrations may consider issuing an Industrial Personnel Safety Certificate for a ship carrying more than 12 industrial personnel, as long as all relaxations are indicated in this certificate.

PART I
GENERAL

1 Goal

The goal of this Code is to provide for the safe carriage of industrial personnel on ships and their safety during personnel transfer operations by addressing any risks present not adequately mitigated by the applicable safety standards in the International Convention for the Safety of Life at Sea, 1974.

2 Definitions

2.1 *Carriage* means transportation, accommodation or both.

2.2 *Essential systems* mean systems referred to in SOLAS regulation II-2/21.4.

2.3 *High-Speed Craft Code, 2000 (2000 HSC Code)* means the International Code of Safety for High-Speed Craft, 2000, as adopted by the Maritime Safety Committee of the Organization by resolution MSC.97(73), as amended.

2.4 *Industrial personnel (IP)* means all persons who are transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

2.5 *IP Area* is every area or space where IP are normally intended to stay during voyage or are allowed to access.

2.6 *Offshore industrial activities* mean the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited, to exploration and exploitation of resources by the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities.

2.7 *Personnel transfer* means the full sequence of the operation of transferring personnel and their equipment at sea to or from a ship to which this Code applies and from or to another ship or an offshore facility.

2.8 *SOLAS* means the International Convention for the Safety of Life at Sea, 1974, as amended.

3 Certificate and survey

3.1 Every ship to which this Code applies shall have on board a valid Industrial Personnel Safety Certificate.

3.2 The Industrial Personnel Safety Certificate shall be issued after an initial or renewal survey to a ship which complies with the requirements of this Code.

3.3 The certificate referred to in this regulation shall be issued either by the Administration or by an organization recognized by it in accordance with SOLAS regulation XI-1/1. In any case, the Administration assumes full responsibility for the certificate.

3.4 The Industrial Personnel Safety Certificate shall be drawn up in a form corresponding to the model given in the appendix to this Code. If the language is not English, French or Spanish, the text shall include translation into one of these languages.

3.5 The Industrial Personnel Safety Certificate validity, survey dates and endorsements shall be harmonized with the relevant SOLAS certificates in accordance with the provisions of SOLAS regulation I/14 or SOLAS regulation X/3.2. The certificate shall include a supplement recording equipment required by the present Code.

3.6 The Industrial Personnel Safety Certificate and Record of Equipment are to be issued in addition to the relevant certificates required in SOLAS regulation XV/5.1.1.

PART II
GOALS AND FUNCTIONAL REQUIREMENTS

1 Industrial Personnel

1.1 Goal

The goal of this chapter is to provide for:

.1 the safe operation during carriage of industrial personnel; and

.2 that industrial personnel are medically fit and familiar with the hazards associated with the operational environment including the risks associated with personnel transfer operations.

1.2 Functional requirements

In order to achieve the goal set out in paragraph 1.1 above, the following functional requirements are embodied in the regulations in part III:

Means shall be provided to ensure that industrial personnel:

.1 are medically fit;

.2 are able to communicate with the ship's crew;

.3 have received appropriate safety training;

.4 have received onboard ship-specific safety familiarization; and

.5 have received onboard familiarization with the ship's transfer arrangements and equipment.

2 Safe transfer of personnel

2. 1 Goal

The goal of this chapter is to provide for the safety of all persons involved in personnel transfer, including safe and suitable means of transfer and the capability of safely carrying out the operations connected to personnel transfer.

2.2 Functional requirements

In order to achieve the goal set out in paragraph 2.1 above, the following functional requirements are embodied in the regulations in part III:

2.2.1 Means shall be provided to avoid injuries during personnel transfer.

2.2.2 Arrangements for personnel transfer shall be:

.1 designed, constructed and maintained to withstand the loads they are subjected to;

.2 designed and engineered to fail to a safe condition in the event of a loss or reduction in their associated functionality; and

.3 capable of safely returning person in transfer to the safe location after loss of power.

2.2.3 Means for position keeping shall be provided and arranged in a manner that prevents accidents during transfer of personnel and is suitable for the mode of operation and interactions with other ships or offshore facilities.

2.2.4 Means shall be provided to ensure that the information on the number of industrial personnel on board and their identity is kept updated to assist in ensuring that the actual number of persons on board is known at all times.

3 Subdivision and stability

3.1 Goal

The goal of this chapter is to provide for adequate stability of the ship, in both its intact and its damaged condition, taking into consideration the total number of persons on board.

3.2 Functional requirements

In order to achieve the goal set out in paragraph 3.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

The ship shall be designed with weathertight and watertight boundaries providing for an adequate stability standard, in both intact and damaged conditions, taking into account the total number of persons on board.

4 Machinery installations

4.1 Goal

The goal of this chapter is to provide for machinery installations capable of delivering the required functionality to ensure safe navigation and the safe carriage of persons on board both during normal operation and in any emergency situation, taking into account the total number of persons on board.

4.2 Functional requirements

In order to achieve the goal set out in paragraph 4.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 where the capacity needed to ensure the required functionality of any machinery system is dependent on the number of persons on board (e.g. bilge pumping systems), necessary additional capacity shall be provided;

.2 steering gear systems shall be capable of maintaining steerage after any incident affecting machinery installations; and

.3 essential systems shall have the necessary redundancy or isolation or a combination thereof in order to ensure the capability of safely accommodating persons on board after any incident affecting machinery installations, taking into account the number of persons on board.

5 Electrical installations

5.1 Goal

The goal of this chapter is to provide for:

.1 emergency sources of power capable of delivering the required functionality of essential systems in emergency situations, taking into account the total number of persons on board; and

.2 protection of all persons on board from electrical hazards.

5.2 Functional requirements

In order to achieve the goal set out in paragraph 5.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 emergency power supply to essential systems shall have the necessary redundancy or isolation or a combination thereof to ensure the capability to safely accommodate persons on board after damage, taking into account the number of persons on board and the time for orderly evacuation; and

.2 precautions against shock, fire and other hazards of electrical origin shall be provided.

6 Periodically unattended machinery spaces

6.1 Goal

The goal of this chapter is to ensure that, if and when a machinery space is periodically unattended, this does not impair the safety of the ship or the persons on board.

6.2 Functional requirements

In order to achieve the goal set out in paragraph 6.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 periodically unattended machinery spaces shall provide safe operations, taking into account the number of persons on board; and

.2 a periodically unattended machinery space shall be equipped with additional controls, monitoring and alarm systems to provide safe operation, taking into account the number of persons on board in order to achieve safety equivalent to that of a normally attended machinery space.

7 Fire safety

7.1 Goal

The goal of this chapter is to fulfil the fire safety objectives of SOLAS or the basic fire safety principles of the 2000 HSC Code, taking into account the number of persons on board.

7.2 Functional requirements

In order to achieve the goal set out in paragraph 7.1 above, the means to fulfil the fire safety functional requirements of SOLAS or the basic fire safety principles of the 2000 HSC Code, taking into account the number of persons on board, are embodied in the regulations in parts IV and V.

8 Life-saving appliances and arrangements

8.1 Goal

The goal of this chapter is to provide for appropriate and sufficient means to ensure safe abandonment of the ship and recovery of persons.

8.2 Functional requirements

In order to achieve the goal set out in paragraph 8.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

To provide for safe abandonment and recovery of persons:

.1 the capacity of the survival craft shall be sufficient to accommodate all persons on board;

.2 appropriate and sufficient personal life-saving appliances shall be available for all persons on board;

.3 sufficient space for assembling and mustering must be ensured;

.4 onboard communication and alarm systems shall be provided to ensure emergency communication to all persons on board; and

.5 means shall be provided to ensure the safe recovery of persons.

9 Dangerous goods

9.1 Goal

The goal of this chapter is to provide for safe carriage of industrial personnel while transporting and handling dangerous goods on ships certified in accordance with this Code, taking into consideration the total number of persons on board.

9.2 Functional requirements

In order to achieve the goal set out in paragraph 9.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

Any hazard caused by the transporting and handling of dangerous goods shall be taken into account and the risk to all persons on board shall be minimized, having regard to the nature of the dangerous goods.

PART III
REGULATIONS

Regulation 1
Industrial personnel

1.1 In order to meet the functional requirements set out in paragraph II/1.2.1, all industrial personnel shall be at least 16 years of age and documentary evidence shall be made available to the master that they are physically and medically fit to fulfil all the requirements in this regulation, based on a standard acceptable to the Administration.

1.2 In order to meet the functional requirements set out in paragraph II/1.2.2, all industrial personnel shall demonstrate adequate knowledge of the working language on board in order to be able to communicate effectively and understand any instructions given by the ship's crew.

1.3 In order to meet the functional requirements set out in paragraph II/1.2.3, all industrial personnel shall, prior to boarding the ship, receive training or instruction in:*

.1 personal survival that includes:

.1 knowledge of emergency situations that may occur on board a ship;

.2 the use of personal life-saving equipment;

.3 safely entering the water from a height, and survival in the water; and

.4 boarding a survival craft from the ship and water while wearing a lifejacket;

.2 fire safety that includes knowledge of the types of fire hazards on board ships and precautionary measures to be taken to prevent a fire; and

.3 personal safety and social responsibilities that include:

.1 understanding the authority of the master or their representative on board;

.2 complying with instructions provided by the shipboard personnel; and

.3 understanding safety information symbols, signs and alarm signals found on board ships.

1.4 No industrial personnel shall be carried on board the ship unless the master has been provided with documentation confirming that such personnel have received the training or instructions required by this regulation.

* Personnel meeting the training requirements in paragraph 5.5 of the *Recommendations for the training and certification of personnel on mobile offshore units* (resolution A.1079(28)) or industrial training standards, such as those of the Global Wind Organization (GWO), Offshore Petroleum Industry Training Organization (OPITO) or Basic Offshore Safety Induction and Emergency Training (OPITO accredited), may be considered as meeting the requirements of this section.

1.5 In order to meet the functional requirement set out in paragraph II/1.2.4, all industrial personnel shall, prior to leaving port or immediately after boarding, receive onboard ship-specific safety familiarization that includes:

.1 the layout of the ship;

.2 the location of personal life-saving appliances, muster and embarkation stations, emergency escape routes and first aid stations;

.3 the safety information, symbols, signs and alarms on board; and

.4 action to be taken in the event of an alarm sounding or the declaration of an emergency.

1.6 In order to meet the functional requirement set out in paragraph II/1.2.5, all industrial personnel shall, prior to being transferred, receive familiarization in the ship's procedures, arrangements and any additional safety measures or equipment for the transfer of personnel to other ships and/or offshore facilities.

Regulation 2
Safe transfer

2.1 In order to meet the functional requirement in paragraph II/2.2.1, the following applies:

.1 Personnel transfer appliances and arrangement shall be kept clean, properly maintained and shall be regularly inspected to ensure that they are safe to use.

.2 The rigging and use of the personnel transfer arrangement(s) shall be supervised by a responsible officer and operated by properly trained personnel. Safety procedures shall be established and followed by personnel engaged in rigging and operating any mechanical equipment.

.3 Means of communication shall be provided between the supervising responsible officer and the navigation bridge.

.4 All personnel transfer arrangements are to be permanently marked to enable identification of each appliance for the purposes of survey, inspection and record-keeping. A record of use and maintenance shall be kept on board the ship.

.5 Prior to commencing personnel transfer operations, the personnel transfer arrangement(s) shall be checked to ensure it is functioning properly.

.6 Means shall be provided to ensure safe and unobstructed passage for industrial personnel between the personnel transfer arrangement(s) and where they are being transported or accommodated on board.

.7 Lighting capable of being supplied by the emergency source of power shall be provided to illuminate the personnel transfer arrangement(s), the water below the transfer arrangement(s) and the passage specified in sub-paragraph .6 above.

.8 The deck area for personnel transfer shall be designated and free from obstructions.

.9 A job safety analysis shall be carried out when planning, and before executing, personnel transfer at sea. The analysis shall take into account environmental conditions, as well as operational and equipment limitations.

.10 When planning personnel transfer, the guidance developed by the Organization* or other relevant guidance† acceptable to the Administration should be taken into account.

2.2 In order to meet the functional requirement in paragraph II/2.2.2, personnel transfer arrangements shall be designed, constructed, tested and installed in accordance with standards§ acceptable to the Administration or requirements of a classification society which is recognized by the Administration in accordance with the provisions of SOLAS regulation XI-1/1.

2.3 In addition, the following applies:

.1 The design of the personnel transfer arrangement(s) shall be suitable for the arrangement on the ship.

.2 An analysis shall be performed in order to evaluate failures in IP transfer arrangement(s) and all its associated systems, which might impair the availability of the transfer arrangement(s) and/or endanger the safety of all persons involved. The analysis** shall:

.1 consider the effects of failure in all the equipment and systems due to single failure, fire in any space or flooding of any watertight compartment that could affect the availability of the transfer arrangement(s); and

.2 provide solutions to ensure the availability of the IP transfer arrangement(s) and the safety of all persons involved upon such failures identified in .1.

.3 Where a single failure results in failure of more than one component in a system (common cause failure), all the resulting failures are to be considered together. Where the occurrence of a failure leads directly to further failures, all those failures are to be considered together.

2.4 In order to meet the functional requirement in paragraph II/2.2.3, the manoeuvrability of the ship together with the expected need for the ship to keep position over time shall be evaluated, to ensure the correct use of position-keeping equipment.

2.5 In order to meet the functional requirement in paragraph II/2.2.4, procedures shall be in place to ensure correct information on the number and identity of personnel on board at all times.

PART IV

* Refer to *Guidance on safety when transferring persons at sea* (MSC-MEPC.7/Circ.10).

† Such as the latest revision of IMCA M202 Guidance on the transfer of personnel to/from offshore vessels and structures.

§ Refer to relevant sections of EN 13852-1:2013.

** Appropriate analysis may be QFA or FMEA and their associated reports.

ADDITIONAL REGULATIONS FOR SHIPS CERTIFIED IN ACCORDANCE WITH SOLAS CHAPTER I

Regulation 1
General

1.1 Unless expressly provided otherwise in this part, ships carrying industrial personnel shall meet the SOLAS requirements for cargo ships and the applicable regulations in this part.

1.2 Ships complying with paragraph 1.1 in addition to the applicable regulations in this part are considered to meet the goals and functional requirements in paragraphs II/3 to II/9.

Regulation 2
Subdivision and stability

2.1 In order to meet the functional requirement set out in paragraph II/3.2.1, the following applies:

.1 Where the ship is certified to carry more than 240 persons on board, it shall meet the requirements of SOLAS regulation II-1/5 as though the ship is a passenger ship and the industrial personnel are counted as passengers. However, SOLAS regulation II-1/5.5 is not applicable.

.2 Subdivision and damage stability shall be in accordance with SOLAS chapter II-1, where the ship is considered a passenger ship and industrial personnel are counted as passengers, with an *R*-value as follows:

.1 where the ship is certified to carry more than 240 persons, the *R*-value is assigned as *R*;

.2 where the ship is certified to carry not more than 60 persons, the *R*-value is assigned as 0.8*R*; or

.3 for more than 60 persons, but not more than 240 persons, the *R*-value shall be determined by linear interpolation between the *R*-values given in sub-paragraphs .1 and .2 above.

$$R = 1 - \frac{5{,}000}{L_s + 2.5N + 15{,}225}$$

Where:

$N = N_1 + 2N_2$

N_1 = number of persons for whom lifeboats are provided

N_2 = number of persons (including officers and crew) the ship is permitted to carry in excess of N_1

.3 Where the conditions of service are such that compliance with paragraph 2.1.2 above on the basis of $N=N_1+2N_2$ is impracticable and where the Administration considers that a suitably reduced degree of hazard exists, a lesser value of N may be taken but in no case less than $N=N_1+N_2$.

.4 For ships to which 2.1.2.1 applies, the requirements of SOLAS regulations II-1/8 and II-1/8-1 and of SOLAS chapter II-1 parts B-2, B-3 and

B-4 shall be applied as though the ship is a passenger ship and the industrial personnel are passengers. However, SOLAS regulations II-1/14 and II-1/18 are not applicable.

.5 For ships to which 2.1.2.2 and 2.1.2.3 apply, except as provided in 2.1.6, the provisions of SOLAS chapter II-1, parts B-2, B-3 and B-4 shall apply as though the ship is a cargo ship and the industrial personnel are crew. However, the requirements of SOLAS regulations II-1/8 and II-1/8-1 need not be applied and SOLAS regulations II-1/14 and II-1/18 are not applicable.

.6 All ships certified in accordance with this Code shall comply with SOLAS regulations II-1/9, II-1/13, II-1/19, II-1/20 and II-1/21 as though the ship is a passenger ship.

Regulation 3
Machinery installations

3.1 In order to meet the functional requirement set out in paragraph II/4.2.1, the ship shall comply with SOLAS regulation II-1/35-1 as though the ship is a passenger ship.

3.2 In order to meet the functional requirement set out in paragraph II/4.2.2, where the ship is certified to carry more than 240 persons on board, it shall comply with the requirements of SOLAS regulation II-1/29 as though the ship is a passenger ship.

Regulation 4
Electrical installations

4.1 In order to meet the functional requirement set out in paragraph II/5.2.1, the following applies:

.1 for installations in ships of more than 50 m in length carrying not more than 60 persons on board, the requirements in SOLAS regulation II-1/42.2.6.1 shall apply in addition to the requirements in SOLAS regulation II-1/43; and

.2 for installations in ships carrying more than 60 persons on board, SOLAS regulation II-1/42 shall apply.

4.2 In order to meet the functional requirement set out in paragraph II/5.2.2 for installations on ships carrying more than 60 persons on board, SOLAS regulation II-1/45.12 shall apply.

Regulation 5
Periodically unattended machinery spaces

In order to meet the functional requirements set out in paragraph II/6.2, ships carrying more than 240 persons on board shall be considered as passenger ships in relation to SOLAS chapter II-1, part E.

Regulation 6
Fire safety

In order to meet the functional requirements set out in paragraph II/7.2 and 4.2.3, the following applies:

.1 where the ship is certified to carry more than 240 persons on board, the requirements of SOLAS chapter II-2 for passenger ships carrying more than 36 passengers shall apply; and

.2 where the ship is certified to carry more than 60, but not more than 240 persons on board, the requirements of SOLAS chapter II-2 for passenger ships carrying not more than 36 passengers apply, except that SOLAS regulations II-2/21 and 22 need not apply.

Regulation 7
Life-saving appliances

7.1 In order to meet the functional requirements set out in paragraph II/8.2, the following shall apply:

.1 For ships carrying more than 60 persons on board, the requirements of SOLAS chapter III for passenger ships engaged on international voyages which are not short international voyages apply.

.2 Regardless of the number of the persons on board, SOLAS regulations III/2 and III/19.2.3 are not applicable.

.3 Where the term "passenger" is used in SOLAS chapter III, it shall be read to mean industrial personnel as prescribed in SOLAS regulation XV/2.3.

.4 Notwithstanding subparagraph .3 above, the required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board.

Regulation 8
Dangerous goods

8.1 General

Industrial personnel may only bring dangerous goods on board for the purpose of their role off the ship and with the prior consent of the master of the ship. These dangerous goods shall be considered as cargo and shall be transported in accordance with part A of SOLAS chapter VII.

8.2 Carriage of dangerous goods in packaged form

In order to meet the functional requirements in paragraph II/9.2, the following applies:

.1 for ships certified to carry more than 240 persons on board, SOLAS regulation II-2/19.3.6.2 for passenger ships carrying more than 36 passengers shall apply; and

.2 for the purpose of the requirements of the IMDG Code, ships certified to carry more than 240 persons on board shall be considered as passenger ships and those certified to carry 240 or fewer persons on board shall be considered as cargo ships.

8.3 Carriage of dangerous goods in solid form in bulk

In order to meet the functional requirements in paragraph II/9.2, the following applies:

.1 for ships certified to carry more than 240 persons on board, SOLAS regulation II-2/19.3.6.2 for passenger ships carrying more than 36 passengers shall apply; and

.2 for the purpose of the requirements of the IMSBC Code, industrial personnel shall be considered as personnel in the context of personnel protection.

8.4 Carriage of dangerous liquid chemicals, liquefied gases and oil

8.4.1 In order to meet the functional requirements in paragraph II/9.2, when simultaneously carrying dangerous liquid chemicals and/or liquefied gases as cargo in bulk and industrial personnel, the ship shall either be certified in accordance with the requirements of parts B or C of SOLAS chapter VII or meet and be certified in accordance with a standard not inferior to that developed by the Organization.* In addition, the following applies:

.1 carriage of toxic products, low-flashpoint products or acids are not allowed when the total number of persons on board exceeds 60;

.2 for the purpose of carrying industrial personnel, the areas and spaces on the ships where industrial personnel are not permitted to enter shall be clearly marked;

.3 the arrangement for personnel transfer shall be located outside the cargo area;

.4 the access to the arrangements for personnel transfer shall, as far as practicable, be located outside the cargo area; and

.5 embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously.

8.4.2 In order to meet the functional requirements in paragraph II/9.2, when simultaneously carrying oil as cargo, as defined in Annex I of MARPOL, and industrial personnel, the additional requirements in paragraph 8.4.1 shall apply.

8.4.3 For the purpose of this requirement:

.1 "low-flashpoint products" mean:

.1 noxious liquid substances with a flashpoint not exceeding 60°C;

.2 oil with a flashpoint not exceeding 60°C; and

.3 liquefied gases which require flammable vapour detection in accordance with chapter 19 of the IGC Code;

.2 "toxic products" mean:

* Refer to the *Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code*) (resolution A.1122(30)).

.1 dangerous chemicals to which the special requirement 15.12 of the IBC Code applies; and

.2 liquefied gases which require toxic vapour detection in accordance with chapter 19 of the IGC Code; and

.3 "acids" mean dangerous chemicals to which the special requirement 15.11 of the IBC Code applies.

8.4.4 In order to meet the functional requirements in paragraph II/9.2 when carrying liquefied gases in bulk, for the purpose of the requirements of the IGC Code, industrial personnel shall be considered as personnel in the context of training and personnel protection.

Part V
Additional regulations for craft certified in accordance with SOLAS chapter X

1 General

1.1 High-speed cargo craft certified in accordance with SOLAS chapter X shall not carry more than 60 persons on board.

1.2 Unless expressly provided otherwise in this part, high-speed craft carrying not more than 60 persons on board shall meet the requirements for cargo craft in the 2000 HSC Code and the applicable regulations in this part.

1.3 Craft complying with paragraph 1.2 in addition to the applicable regulations in this part are considered to meet the goals and functional requirements in paragraphs II/3 to II/9.

1.4 The carriage of IP on high-speed craft is not considered as transit voyage, as specified in 1.9.1.1 of the 2000 HSC Code, and a permit to operate is required.

1.5 Where the term "passenger" is used in applicable requirements in the 2000 HSC Code, it shall be read to mean "persons on board other than crew".

2 Subdivision and stability

In order to meet the functional requirements set out in II/3.2, the following applies:

.1 In lieu of chapter 2, part C of the 2000 HSC Code, chapter 2, part B, except 2.13.2 and 2.14, shall apply.

.2 When applying the provisions of chapter 2 of the 2000 HSC Code, the expression "passenger" shall be read as "persons on board other than crew". In addition, the mass of each such person shall be assumed to be 90 kg instead of 75 kg.

3 Machinery installations

In order to meet the functional requirements set out in II/4.2, the following applies:

In lieu of chapter 10, part C of the HSC Code, chapter 10, part B, shall apply as applicable to category A passenger craft.

4 Electrical installations

In order to meet the functional requirements set out in paragraph II/5.2, the following applies:

Regulation 12.7.10 of the 2000 HSC Code shall apply.

5 Periodically unattended machinery spaces

[no provisions]

6 Fire safety

[no provisions]

7 Life-saving appliances

In order to meet the functional requirements set out in paragraph II/8.2, the following applies:

.1 regulation 4.2.3 of the 2000 HSC Code shall apply;

.2 regulation 11.4.3 of the 2000 HSC Code shall apply – the expression "passenger spaces" shall be read as "IP Area"; and

.3 the required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board.

8 Dangerous goods

8.1 Industrial personnel may only bring dangerous goods on board for the purpose of their role off the ship and with the prior consent of the master of the ship. These dangerous goods shall be considered as cargo and shall be transported in accordance with part D of the 2000 HSC Code, chapter 7.

8.2 In order to meet the functional requirements set out in paragraph II/9.2, the following applies:

.1 for the purpose of carrying IP, the areas and spaces on the ships where IP are not permitted to enter shall be clearly marked;

.2 the arrangement for personnel transfer shall be located outside the cargo area;

.3 the access to the arrangements for personnel transfer shall, as far as practicable, be located outside the cargo area; and

.4 embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously.

APPENDIX

Form of Safety Certificate for Ships carrying Industrial Personnel

INDUSTRIAL PERSONNEL SAFETY CERTIFICATE

This Certificate shall be supplemented by a Record of Equipment for the Industrial Personnel Safety Certificate

(Official seal) (State)

Issued under the provisions of the

International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

(name of the State)

by _____
(person or organization authorized)

Particulars of ship*

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

IMO number** .....

Date [dd/mm/yyyy] on which keel was laid or ship was of a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced .....

* Alternatively, the particulars of the ship may be placed horizontally in boxes.

** In accordance with IMO Ship Identification Number Scheme adopted by the Organization by resolution A.1117(30).

THIS IS TO CERTIFY:

1 ☐ *check box, if applicable*
That the ship has been surveyed in accordance with the provisions of regulation I/3 of the International Code of Safety for Ships Carrying Industrial Personnel as a ship to which regulations XV/3.1 or 3.4 of the Convention apply.

.1 That the survey showed that:

.1 the structure, equipment, fittings and materials of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the relevant provisions of the Code; and

.2 if fitted, the personnel transfer appliances and arrangement and the condition thereof are in all respects satisfactory and comply with the provisions of regulation III/2 of the Code.

2 ☐ *check box, if applicable*
That the ship has been surveyed in accordance with the provisions of regulation I/3 of the International Code of Safety for Ships Carrying Industrial Personnel as a ship to which regulations XV/3.2 or XV/3.3 of the Convention apply.

.1 That the survey showed that:

.1 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with regulation IV/7 or regulation V/7 of the Code, as applicable;

.2 the ship, if permitted to carry dangerous goods, complies with the relevant provisions of regulation IV/8 or regulation V/8 of the Code, as applicable; and

.3 if fitted, the personnel transfer appliances and arrangement and the condition thereof are in all respects satisfactory and comply with the provisions of regulation III/2 (except for paragraph 2.1.7) of the Code.

3 This certificate is not valid for the carriage of toxic products, low-flashpoint products or acids when the total number of persons on board exceeds 60.

This certificate is valid until ..... ……

Completion date of the survey on which this certificate is based (dd/mm/yyyy): …….....

Issued at .....
(Place of issue of certificate)

.....
(Date of issue)

(Signature of authorized official issuing the certificate)

(Seal or stamp of the issuing authority, as appropriate)

ENDORSEMENT FOR ANNUAL, PERIODICAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that, at a survey required by I/3 of the Code, the ship was found to comply with the relevant provisions of the Code:

Annual/Periodical* survey:

Signed:
……
(Signature of authorized official)

Place: ……

Date: ……

(Seal or stamp of the authority, as appropriate)

Annual/Periodical/Intermediate* survey:

Signed:
……
(Signature of authorized official)

Place: ……

Date: ……

(Seal or stamp of the authority, as appropriate)

Annual/Periodical/Intermediate* survey:

Signed:
……
(Signature of authorized official)

Place: ……

Date: ……

(Seal or stamp of the authority, as appropriate)

Annual/Periodical* survey:

Signed:
……
(Signature of authorized official)

Place: ……

Date: ……

(Seal or stamp of the authority, as appropriate)

**Delete as appropriate.*

ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN FIVE YEARS WHERE REGULATION I/14(C) OF THE CONVENTION OR REGULATION 1.8.8 OF THE HSC CODE APPLIES*

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with regulation I/14(c) of the Convention or regulation 1.8.8 of the HSC Code, be accepted as valid until.....

Signed: .....
(Signature of authorized official)

Place: .....

Date: .....
(Seal or stamp of the authority, as appropriate)

ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION I/14(D) OF THE CONVENTION OR REGULATION 1.8.9 OF THE HSC CODE APPLIES*

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with regulation I/14(d) of the Convention or regulation 1.8.9 of the HSC Code, be accepted as valid until.....

Signed: .....
(Signature of authorized official)

Place: .....

Date: .....
(Seal or stamp of the authority, as appropriate)

ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE REGULATION I/14(E) OR I/14(F) OF THE CONVENTION OR REGULATION 1.8.10 OF THE HSC CODE APPLIES*

This certificate shall, in accordance with regulation I/14(e)/l/14(f) of the Convention or regulation 1.8.10 of the HSC Code be accepted as valid until.....

Signed: .....
(Signature of authorized official)

Place: .....

Date: .....
(Seal or stamp of the authority, as appropriate)

**Delete as appropriate.*

ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION I/14(H) OF THE CONVENTION OR REGULATION 1.8.12 OF THE HSC CODE APPLIES*

In accordance with regulation I/14(h) of the Convention or regulation 1.8.12 of the HSC Code, the new anniversary date is .....

Signed: .....
(Signature of authorized official)

Place: .....

Date: .....
(Seal or stamp of the authority, as appropriate)

In accordance with regulation I/14(h) of the Convention or regulation 1.8.12 of the HSC Code the new anniversary date is .....

Signed: .....
(Signature of authorized official)

Place: .....

Date: .....
(Seal or stamp of the authority, as appropriate)

Record of Equipment for the Industrial Personnel Safety Certificate (Form IP)

This Record should be permanently attached to the Industrial Personnel Safety Certificate.

RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL

1 Particulars of ship

Name of ship .....

Distinctive number or letters .....

Total number of persons on board
for which certified .....

2 Details of life-saving appliances

1 Total number of persons for which life-saving appliances are provided		. . . . .
	Port side	Starboard side
2 Total number of lifeboats	. . . . .	. . . . .
2.1 Total number of persons accommodated by them	. . . . .	. . . . .
2.2 Number of partially enclosed lifeboats (SOLAS regulation III/21 or regulation III/31 or regulation 8.10 of the HSC Code, as applicable, and LSA Code, section 4.5)	. . . . .	. . . . .
2.3 Number of self-righting partially enclosed lifeboats (SOLAS regulations III/21 or regulation III/31 or regulation 8.10 of the HSC Code, as applicable, and LSA Code, section 4.5)	. . . . .	. . . . .
2.4 Number of totally enclosed lifeboats (SOLAS regulations III/21 or regulation III/31 or regulation 8.10 of the HSC Code, as applicable, and LSA Code, sections 4.6)	. . . . .	. . . . .
2.5 Other lifeboats	. . . . .	. . . . .
2.5.1 Number	. . . . .	. . . . .
2.5.2 Type	. . . . .	. . . . .

3	Number of motor lifeboats (included in the total lifeboats shown above)	. . . . .
3.1	Number of lifeboats fitted with searchlights	. . . . .
4	Number of rescue boats	. . . . .
4.1	Number of boats which are included in the total lifeboats shown above	. . . . .
5	Liferafts	. . . . .
5.1	Those for which approved launching appliances are required	. . . . .
5.1.1	Number of liferafts	. . . . .
5.1.2	Number of persons accommodated by them	. . . . .
5.2	Those for which approved launching appliances are not required	
5.2.1	Number of liferafts	. . . . .
5.2.2	Number of persons accommodated by them	. . . . .
6	Number of Marine Evacuation Systems (MES)	. . . . .
6.1	Persons accommodated by them	. . . . .
7	Buoyant apparatus	. . . . .
7.1	Number of apparatus	. . . . .
7.2	Number of persons capable of being supported	. . . . .
8	Number of lifebuoys	. . . . .
9	Number of lifejackets (total)	. . . . .
9.1	Number of adult lifejackets	. . . . .
9.2	Number of child lifejackets	. . . . .
9.3	Number of infant lifejackets	. . . . .
10	Immersion suits	. . . . .
10.1	Total number	. . . . .
11	Number of thermal protective aids*	. . . . .
12	Radio installations used in life-saving appliances	. . . . .
12.1	Number of search and rescue locating devices	. . . . .
12.2	Number of two-way VHF radiotelephone apparatus	. . . . .

* Excluding those required by the LSA Code, paragraphs 4.1.5.1.24, 4.4.8.31 and 5.1.2.2.13.

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at .....
(Place of issue of the Record)

.....
(Date of issue)

(Signature of duly authorized official issuing the Record)

(Seal or stamp of the issuing authority, as appropriate)

***

ANNEX 34

DRAFT AMENDMENTS TO THE 2011 ESP CODE

ANNEX TO THE INTERNATIONAL CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS AND OIL TANKERS, 2011 (2011 ESP CODE)

ANNEX A

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING THE SURVEYS OF BULK CARRIERS

Part A

Code on the Enhanced Programme of Inspections During Surveys of Bulk Carriers having Single-Side Skin Construction

2 Renewal survey

2.3 Space protection

1 The existing text of paragraph 2.3.1 is replaced by the following:

"2.3.1 Where provided, the condition of the corrosion prevention system of ballast tanks should be examined. For ballast tanks excluding double-bottom tanks, where a hard protective coating is found to be in less than GOOD condition as defined in 1.2.11, and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction, the tanks in question should be examined at annual intervals. Thickness measurements should be carried out as deemed necessary by the surveyor. When such breakdown of hard protective coating is found in water ballast double-bottom tanks and it is not renewed, where a soft or semi-hard coating has been applied or where a hard protective coating has not been applied from the time of construction, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurement should be carried out."

4 Intermediate survey

4.2 Bulk carriers 5 to 10 years of age

2 The existing text of paragraphs 4.2.1.2 and 4.2.1.3 are replaced by the following:

"4.2.1.2 Where a hard coating is found to be in less than GOOD condition, corrosion or other defects are found in water ballast tanks or where hard protective coating was not applied from the time of construction, the examination should be extended to other ballast tanks of the same type.

4.2.1.3 In ballast tanks other than double-bottom tanks, where a hard protective coating is found to be in less than GOOD condition and it is not renewed, or where soft or semi-hard coating has been applied, or where a hard protective coating was not

applied from the time of construction, the tanks in question should be examined and thickness measurements carried out as considered necessary at annual intervals. When such breakdown of hard protective coating is found in ballast double-bottom tanks, where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurements should be carried out. "

ANNEX 7

CONDITION EVALUATION REPORT (EXECUTIVE HULL SUMMARY REPORT)

Contents of condition evaluation report (executive hull summary report)

3 The existing Part 8 (Memoranda) is replaced by the following:

"Part 8 – Memoranda

- Acceptable defects
- Any points of attention for future surveys, e.g. for suspect areas
- Examination of ballast tanks at annual surveys Extended due to coating breakdown

For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 8 of the Contents of condition evaluation report (executive hull summary report)."

ANNEX 9

GUIDELINES FOR TECHNICAL ASSESSMENT IN CONJUNCTION WITH THE PLANNING OF ENHANCED SURVEYS FOR SINGLE-SIDE SKIN BULK CARRIERS – RENEWAL SURVEY HULL

References

4 The existing reference no 3 (IACS) is replaced by the following:

"3 IACS Recommendation 76, Guidelines for Surveys, Assessment and Repair of Hull Structure - Bulk Carriers, 2007"

Part B

Code on the Enhanced Programme of Inspections During Surveys of Bulk Carriers having Double-Side Skin Construction

2 Renewal survey

2.3 Space protection

5 The existing text of paragraph 2.3.1 is replaced by the following:

"2.3.1 Where provided, the condition of the corrosion prevention system of ballast tanks should be examined. For ballast tanks, excluding double-bottom tanks, where a

hard protective coating is found to be in less than GOOD condition as defined in 1.2.11, and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction, the tanks in question should be examined at annual intervals. Thickness measurements should be carried out as deemed necessary by the surveyor. When such breakdown of hard protective coating is found in water ballast double-bottom tanks and it is not renewed, where a soft or semi-hard coating has been applied or where a hard protective coating has not been applied from the time of construction, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurement should be carried out."

6 A new paragraph 2.3.4 is added after existing paragraph 2.3.3, as follows:

"2.3.4 For double-side skin void spaces bounding cargo holds for bulk carriers exceeding 20 years of age and of 150 m in length and upwards, where provided, the condition of the corrosion prevention system of void spaces shall be examined. Where a hard protective coating is found to be in POOR condition as defined in 1.2.11, and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction, the void spaces in question shall be examined at annual intervals. Thickness measurements shall be carried out as deemed necessary by the surveyor."

3 Annual survey

7 A new paragraph 3.7 is added after existing paragraph 3.6.2, as follows:

"**3.7 *Examination of double-side skin void spaces for bulk carriers exceeding 20 years of age and of 150 m in length and upwards***

Examination of double-side skin void spaces, for bulk carriers exceeding 20 years of age and of 150 m in length and upwards, should be carried out when required as a consequence of the results of the renewal survey and intermediate survey. When considered necessary by the Administration, or when extensive corrosion exists, thickness measurements should be carried out. If the results of these thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements should be increased in accordance with annex 10. These extended thickness measurements should be carried out before the survey is credited as completed. Suspect areas identified at previous surveys should be examined. Areas of substantial corrosion identified at previous surveys should have thickness measurements taken. For bulk carriers built under the IACS Common Structural Rules, the annual thickness gauging may be omitted where a protective coating has been applied in accordance with the coating manufacturer's requirements and is maintained in good condition."

4 Intermediate survey

4.2 Double-side bulk carriers 5 to 10 years of age

4.2.1 **Ballast tanks**

8 The existing text of paragraphs 4.2.1.2 and 4.2.1.3 are replaced by the following:
"4.2.1.2 Where a hard coating is found to be in less than GOOD condition, corrosion or other defects are found in water ballast tanks or where hard protective coating was not applied from the time of construction, the examination should be extended to other ballast tanks of the same type.

4.2.1.3 In ballast tanks other than double-bottom tanks, where a hard protective coating is found to be in less than GOOD condition and it is not renewed, or where soft or semi-hard coating has been applied, or where a hard protective coating was not applied from the time of construction, the tanks in question should be examined and thickness measurements carried out as considered necessary at annual intervals. When such breakdown of hard protective coating is found in ballast double-bottom tanks, where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurements should be carried out."

ANNEX 7

CONDITION EVALUATION REPORT (EXECUTIVE HULL SUMMARY REPORT)

Contents of condition evaluation report (executive hull summary report)

9 The existing parts 5 (Tank/hold corrosion prevention system) and 8 (Memoranda) are replaced by the following:

"Part 5 – Tank/ hold/ double-side skin void space corrosion prevention system	- Separate form indicating: - location of coating - condition of coating (if applicable)
Part 8 – Memoranda	- Acceptable defects - Any points of attention for future surveys, e.g. for suspect areas - Examination of ballast tanks and double-side skin void spaces at annual surveys due to coating breakdown"

Tank/hold corrosion prevention system

10 The existing chapeau of "Tank/hold corrosion prevention system", including the table and the text underneath, are replaced by the following:

"**Tank/hold/ double-side skin void space corrosion prevention system**

Tank/hold/void Nos.[1]	**Tank/hold/void corrosion prevention system[2]**	**Coating condition[3]**	**Remarks**

Notes:

1 All ballast tanks, cargo holds and double-skin void spaces shall be listed.
2 C = Coating
NP = No protection
3 Coating condition according to the following standard:

GOOD condition with only minor spot rusting.

FAIR condition with local breakdown of coating at edges of stiffeners and weld connections and/or light rusting over 20% or more of areas under consideration, but less than as defined for POOR condition.

POOR condition with general breakdown of coating over 20% or more of areas or hard scale at 10% or more of areas under consideration. For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 8 of the Contents of condition evaluation report (executive hull summary report).

For double-side skin void spaces on bulk carriers exceeding 20 years of age and of 150 m in length and upwards, if coating condition POOR is given, those voids shall be examined at annual surveys. This shall be noted in part 8 of the Contents of condition evaluation report (executive hull summary report)."

ANNEX 9

GUIDELINES FOR TECHNICAL ASSESSMENT IN CONJUNCTION WITH PLANNING FOR ENHANCED SURVEYS OF DOUBLE-SIDE SKIN BULK CARRIERS – RENEWAL SURVEY HULL

References

11 The existing references are replaced by the following:

"1 IACS, Recommendation 76: Guidelines for Surveys, Assessment and Repair of Hull Structure - Bulk Carriers, 2007

2 TSCF, Guidelines for the Inspection and Maintenance of Double Hull Tanker Structures, 1995

3 TSCF, Guidelines Manual for Tanker Structures, 1997."

ANNEX B

CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF OIL CARRIERS

Part A

Code on the Enhanced Programme of Inspections During Surveys of Double-Hull Oil Tankers

1.2 ***Definitions***

12 The existing text of paragraph 1.2.1 is replaced by the following:

"1.2.1 *Double-hull oil tanker* is a ship which is constructed primarily for the carriage of oil in bulk, which has cargo tanks forming an integral part of the ship's hull and protected by a double-hull which extends for the entire length of the cargo area, consisting of double sides and double-bottom spaces for the carriage of water ballast or void spaces."

2.6 ***Extent of tank pressure testing***

13 The existing text of paragraph 2.6.1 is replaced by the following:

"2.6.1 The minimum requirements for ballast tank pressure testing at the renewal survey are given in 2.6.3 and in annex 3.

The minimum requirements for cargo tank testing at the renewal survey are given in 2.6.4 and annex 3.

Cargo tank testing carried out by the ship's crew under the direction of the master may be accepted by the surveyor, provided the following conditions are complied with:

.1 a tank testing procedure, specifying fill heights, tanks being filled and bulkheads being tested, has been submitted by the owner and reviewed by the Administration prior to the testing being carried out;

.2 the tank testing is carried out prior to overall survey or close-up survey;

.3 the tank testing is carried out within the special survey window and not more than three months prior to the date on which the overall or close-up survey is completed;

.4 the tank testing has been satisfactorily carried out and there is no record of leakage, distortion or substantial corrosion that would affect the structural integrity of the tank;

.5 the satisfactory results of the testing are recorded in the vessel's logbook; and

.6 the internal and external condition of the tanks and associated structure are found satisfactory by the surveyor at the time of the overall and close-up survey."

ANNEX 10

CONDITION EVALUATION REPORT (EXECUTIVE HULL SUMMARY REPORT)

Contents of condition evaluation report (executive hull summary report)

14 The existing part 9 (Memoranda) is replaced by the following:

"Part 9 – Memoranda
- Acceptable defects
- Any points of attention for future surveys, e.g. for suspect areas
- Examination of ballast tanks at annual surveys due to coating breakdown

For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 9 of the Contents of condition evaluation report (executive hull summary report)."

ANNEX 12

GUIDELINES FOR TECHNICAL ASSESSMENT IN CONJUNCTION WITH THE PLANNING OF ENHANCED SURVEYS FOR OIL TANKERS

References

15 The existing references are replaced by the following:

"1 IACS, Recommendation 96: Double Hull Oil Tankers – Guidelines for Surveys, Assessment and Repair of Hull Structures, 2019

2 TSCF, Guidelines for the Inspection and Maintenance of Double Hull Tanker Structures, 1995

3 TSCF, Guidelines Manual for Tanker Structures, 1997."

Part B

Code on the Enhanced Programme of Inspections During Surveys of Oil Tankers Other than Double-Hull Oil Tankers

1.2 *Definitions*

16 The existing text of paragraph 1.2.1 is replaced by the following:

"1.2.1 *Oil tanker* is a ship which is constructed primarily to carry oil in bulk in cargo tanks forming an integral part of the ship's hull, which includes ship types such as combination carriers (ore/oil ships, etc.) but excludes ships carrying oil in independent tanks not part of ship's hull such as, for instance, asphalt carriers."

2.6 *Extent of tank pressure testing*

17 The existing text of paragraph 2.6.1 is replaced by the following:

"2.6.1 The minimum requirements for ballast tank pressure testing at the renewal survey are given in 2.6.3 and in annex 3.

The minimum requirements for cargo tank testing at the renewal survey are given in 2.6.4 and annex 3.

Cargo tank testing carried out by the ship's crew under the direction of the master may be accepted by the surveyor, provided the following conditions are complied with:

.1 a tank testing procedure, specifying fill heights, tanks being filled and bulkheads being tested, has been submitted by the owner and reviewed by the Administration prior to the testing being carried out;

.2 the tank testing is carried out prior to overall survey or close-up survey;

.3 the tank testing is carried out within the special survey window and not more than three months prior to the date on which the overall or close-up survey is completed;

.4 the tank testing has been satisfactorily carried out and there is no record of leakage, distortion or substantial corrosion that would affect the structural integrity of the tank;

.5 the satisfactory results of the testing are recorded in the vessel's logbook; and

.6 the internal and external condition of the tanks and associated structure are found satisfactory by the surveyor at the time of the overall and close-up survey."

ANNEX 9

CONDITION EVALUATION REPORT (EXECUTIVE HULL SUYMMARY REPORT)

Contents of condition evaluation report (executive hull summary report)

18 The existing part 9 (Memoranda) is replaced by the following:

"Part 9 – Memoranda

- Acceptable defects
- Any points of attention for future surveys, e.g. for suspect areas
- Examination of ballast tanks at annual surveys due to coating breakdown

For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 9 of the Contents of condition evaluation report (executive hull summary report)."

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ANNEX 35

RESOLUTION MSC.188(79)/Rev.1
(adopted on 28 April 2022)

REVISED PERFORMANCE STANDARDS FOR WATER LEVEL DETECTORS ON SHIPS SUBJECT TO SOLAS REGULATIONS II-1/25, II-1/25-1 AND XII/12

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution MSC.134(76), by which it, at its seventy-sixth session, adopted amendments to chapter XII of the International Convention for the Safety of Life at Sea (SOLAS), 1974, inter alia introducing new regulation 12 requiring the installation of water level detectors for hold, ballast and dry spaces,

RECALLING FURTHER resolution MSC.194(80), by which it, at its eightieth session, adopted amendments to chapter II-1 of the 1974 SOLAS Convention, introducing new regulation 23-3 requiring the installation of water level detectors on single hold cargo ships other than bulk carriers,

RECALLING resolution MSC.482(103), by which it, at its 103rd session, adopted amendments to chapter II-1 of the 1974 SOLAS Convention, introducing new regulation 25-1 requiring the installation of water level detectors on multiple hold cargo ships other than bulk carriers and tankers, which is expected to enter into force on 1 January 2024,

RECOGNIZING that performance standards against which the operation and efficiency of water level detectors can be measured should be made available in good time before the above entry-into-force date,

RECOGNIZING ALSO the need to ensure that the required water level detectors operate reliably and that, to that extent, they are appropriately tested and installed,

HAVING CONSIDERED, at its 105th session, the recommendations made by the Sub-Committee on Ship Design and Construction, at its eighth session,

1 ADOPTS the *Revised performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12* and the appended *Guidelines on installation and testing of water level detection systems for ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12*, as set out in the annex to the present resolution;

2 URGES Governments to ensure that the annexed Revised performance standards and appended Guidelines are applied when water level detectors are installed on ships flying their flags, in compliance with SOLAS regulations II-1/25, II-1/25-1 and XII/12, as appropriate;

3 RECOMMENDS Governments to ensure that water level detectors:

.1 if installed on or after 1 January 2024, conform to performance standards not inferior to those specified in the annex to the present resolution;

.2 if installed before 1 January 2024, conform to performance standards not inferior to those specified in the annex to resolution MSC.188(79);

4 DETERMINES that the present resolution supersedes resolution MSC.188(79).

ANNEX

PERFORMANCE STANDARDS FOR WATER LEVEL DETECTORS ON SHIPS SUBJECT TO SOLAS REGULATIONS II-1/25, II-1/25-1 AND XII/12

1 PURPOSE

1.1 These standards provide technical functional requirements for water level detection and alarm arrangements installed in:

.1 bulk carriers for compliance with SOLAS regulation XII/12;

.2 single hold cargo ships other than bulk carriers for compliance with SOLAS regulation II-1/25; and

.3 multiple hold cargo ships other than bulk carriers and tankers for compliance with SOLAS regulation II-1/25-1.

1.2 They also provide technical functional requirements for bilge alarms used as water level detectors in multiple hold cargo ships for compliance with SOLAS regulation II-1/25-1.

2 DEFINITIONS

2.1 *Water level detector* means a system comprising sensors and alarms that detect and warn of water ingress in cargo holds and other spaces as required in SOLAS regulations II-1/25, II-1/25-1 or XII/12.1.

2.2 *Sensor* means a unit fitted at the location being monitored that activates a signal to identify the presence of water at the location.

2.3 *Pre-alarm level* means the lower level at which the sensor(s) in the cargo hold space will operate.

2.4 *Main alarm level* means the higher level at which the sensor(s) in the cargo hold space will operate or the sole level in spaces other than cargo holds.

2.5 *Visual indication* means indication by activation of a light or other device that is visible to the human eye in all levels of light or dark at the location where it is situated.

2.6 *Audible indication* means an audible signal that is detectable at the location where it is signalled.

3 FUNCTIONAL REQUIREMENTS

3.1 Means of detecting the water level

3.1.1 The method of detecting the water level may be by direct or indirect means as defined below:

.1 A direct means of detection determines the presence of water by physical contact of the water with the detection device.

.2 Indirect means of detection include devices without physical contact with the water.

3.1.2 The sensors should be capable of being located in the aft part of the hold or above its lowest point in such ships having an inner bottom not parallel to the designed waterline, or, in the case of bulk carriers complying with SOLAS regulation XII/12, in the aft part of each cargo hold or in the lowest part of the spaces other than cargo holds to which that regulation applies.

3.1.3 The systems of detecting the water level should be capable of continuous operation while the ship is at sea.

3.2 Detector system requirements

3.2.1 Detector systems should provide a reliable indication of water reaching a preset level.

3.2.2 The system should be capable of the following:

For cargo holds:

.1 An alarm, both visual and audible, activated when the depth of water reaches the pre-alarm level in the space being monitored. The indication should identify the space.

.2 An alarm, both visual and audible, activated when the depth of water reaches the main alarm level, indicating increasing water level in a cargo hold. The indication should identify the space and the visual and audible alarm should not be the same as that for the pre-alarm level.

For compartments other than cargo holds:

.3 An alarm, both visual and audible, indicating the presence of water in a compartment other than a cargo hold when the level of water in the space being monitored reaches the sensor. The visual and audible characteristics of the alarm indication should be the same as those for the main alarm level in a hold space.

3.2.3 Detection equipment should be suitably corrosion resistant for all intended cargoes.

3.2.4 The detector indicating the water level should be capable of activating to an accuracy of ±100 mm.

3.2.5 Detection equipment should be of certified safe type appropriate for the intended cargoes. The part of the system which has circuitry in the cargo area should be intrinsically safe or explosion proof with appropriate apparatus group and temperature class which is to be determined depending on the cargo carried.

3.3 Alarm system requirements

3.3.1 The visual and audible alarms should be suitable for location on the navigation bridge.*

3.3.2 Visual and audible alarms should conform to the Code on Alerts and Indicators, 2009, as may be amended, as applicable to a primary alarm for the preservation or safety of the ship.

3.3.3 The visual and audible alarms should be capable of the following:

.1 Visual indication using a light of a distinct colour, or digital display that is clearly visible in all expected light levels, which does not seriously interfere

* Reference is made to the requirements of SOLAS regulations V/17 and V/18.

with other activities necessary for the safe operation of the ship. The visual indication should be capable of remaining visible until the condition activating it has returned below the level of the relevant sensor. The visual indication should not be capable of being extinguished by the operator.

.2 In conjunction with the visual indication for the same sensor, the system should be capable of providing audible indication and alarms in the space in which the indicator is situated. The audible indication should be capable of being muted by the operator.

3.3.4 Time delays may be incorporated into the alarm system to prevent spurious alarms due to sloshing effects associated with ship motions.

3.3.5 An alarm overriding device may be installed for water level detectors in cargo holds or tanks which can be used for water ballast (SOLAS regulations II-1/25-1 and XII/12.1). An override visual indication capability should be provided throughout deactivation of the water level detector for such holds or tanks. Where such an override capability is provided, cancellation of the override condition and reactivation of the alarm should automatically occur after the hold or tank has been de-ballasted to a level below the lowest alarm indicator level.

3.3.6 Requirements for malfunctions, alarms and indications should include a facility for continuous monitoring of the system which, on detecting a fault, activates a visual and audible alarm. The audible alarm should be capable of being muted, but the visual indication should remain active until the malfunction is cleared.

3.3.7 The water level detector system should be capable of being supplied with electrical power from two independent electrical supplies. Failure of any of the two electrical power supplies should be indicated by an alarm.

3.4 Testing

3.4.1 Water level detector systems should be type tested to demonstrate their robustness and suitability under the appropriate internationally recognized conditions and for their continued functioning under the expected service temperature.*

3.4.2 Detectors serving a cargo hold should be capable of being functionally tested, in situ, when the hold is empty using either direct or indirect methods.

3.5 Manuals

Documented operating and maintenance procedures for the water level detection system should be kept on board and be readily accessible.

4 INSTALLATION AND TESTING

Guidelines on installation and testing of water level detection systems for ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12 are set out in the appendix.

* With regard to testing, reference is made to IEC 60092-504 and IEC 60529. Electrical components installed in cargo holds, ballast tanks and dry spaces should satisfy the requirements of IP68 in accordance with IEC 60529.

5 BILGE ALARMS USED AS WATER LEVEL DETECTORS

5.1 Bilge alarms may be used as water level detectors provided that they meet the functional requirements and installation and testing requirements set out in sections 3 and 4.

5.2 Some cargoes require the bilge pumping system to be protected to prevent the spread of contaminated or potentially dangerous fluids.

5.3 Where the cargo hold bilge well will be completely sealed when specific cargoes are carried, and the bilge well therefore cannot be used for the entry of ingress water to the detector(s), a suitable alternative detection point or points are to be provided.

5.4 If the bilge well is used for when specific cargoes are carried, the bilge well is not to be completely sealed in order to allow water ingress for activating the detectors.

6 PERIODIC TESTING

Water level detectors should be periodically tested on board to the same extent as specified in section 3.3 of the appendix and records of the periodic testing should be retained on board.

APPENDIX

GUIDELINES ON INSTALLATION AND TESTING OF WATER LEVEL DETECTION SYSTEMS ON SHIPS SUBJECT TO SOLAS REGULATIONS II-1/25, II-1/25-1 AND XII/12

1 PURPOSE

1.1 These Guidelines provide procedures for installation and testing of water level detection and alarm systems installed in:

.1 bulk carriers for compliance with SOLAS regulation XII/12;

.2 single hold cargo ships other than bulk carriers for compliance with SOLAS regulation II-1/25; and

.3 multiple hold cargo ships other than bulk carriers and tankers for compliance with SOLAS regulation II-1/25-1.

1.2 They also provide procedures for installation and testing of bilge alarms used as water level detectors in multiple hold cargo ships other than bulk carriers and tankers for compliance with SOLAS regulation II-1/25-1.

2 EQUIPMENT

2.1 Detector equipment type test requirements

2.1.1 Detector equipment should provide a reliable indication of water reaching a preset level and should be type tested to demonstrate their robustness and suitability under the appropriate conditions of IEC 60092-504 and the following:

.1 Protection of the enclosures of electrical components installed in the cargo holds, ballast tanks and dry spaces should satisfy the requirements of IP68 in accordance with IEC 60529. The water pressure testing of the enclosure

should be based on a pressure head held for a period depending on the application. For detectors to be fitted in holds intended for the carriage of water ballast or ballast tanks the application head should be the hold or tank depth and the hold period should be 20 days. For detectors to be fitted in spaces intended to be dry the application head should be the depth of the space and the hold period should be 24 h.

.2 Operation in cargo/water mixture for a selected range of cargo groups such as iron ore dust, coal dust, grains and oils using seawater with a suspension of representative fine material for each cargo group. For type test purposes an agitated suspension of representative fine materials in seawater, with a concentration of 50% by weight, should be used with the complete detector assembly including any filtration fitted. The functioning of the detection assembly with any filtration arrangements should be verified in the cargo/water mixture with immersion repeated 10 times without cleaning any filtration arrangements.

2.1.2 Protection of the enclosures of electrical equipment located on the deck above ballast and cargo spaces should satisfy the requirements of IP56 in accordance with IEC 60529.

2.1.3 Equipment which is to be used in refrigerated cargo spaces should satisfy the requirements of a suitable industry standard covering the relevant service temperatures.

2.2 Detector equipment installation requirements

2.2.1 The sensors should be located in a protected position that is in communication with the specified part of the cargo hold (usually the aft part) such that the position of the sensor detects the level that is representative of the levels in the actual hold space. These sensors should be located:

.1 either as close to the centreline as practicable, or

.2 at both the port and starboard sides of the cargo hold.

2.2.2 The sensors should be located at the height specified in the regulations. These heights are to be measured from the upper surface of the inner bottom and if the bottom of the bilge well is below the upper surface of the inner bottom, its heights are to be measured from the bottom of the bilge well.

2.2.3 When a lining or insulation is fitted, if the lining or insulation is not constructed to a watertight standard, then the height is to be measured from the upper surface of the inner bottom. If the lining or insulation is tested as watertight, then the heights may be measured from the upper surface of the lining/insulation.

2.2.4 The detector installation should not inhibit the use of any sounding pipe or other water level gauging device for cargo holds or other spaces.

2.2.5 Detectors and equipment should be installed where they are accessible for survey, maintenance and repair.

2.2.6 Any filter element fitted to detectors should be capable of being cleaned before loading.

2.2.7 Sensors, electrical cables and any associated equipment installed in cargo holds should be protected from damage by cargoes or mechanical handling equipment associated with bulk carrier operations, such as in tubes of robust construction or in similar protected locations.

2.2.8 Any changes/modifications to the ship's structure, electrical systems or piping systems that involves cutting and/or welding should be approved by the classification society before work is carried out.

3 SYSTEMS

3.1 Alarm system requirements

3.1.1 Alarm systems should be type tested in accordance with IEC 60092-504, as appropriate.

3.1.2 A switch for testing audible and visual alarms should be provided at the alarm panel and the switch should return to the off position when not operated.

3.2 Alarm system testing requirements

The visual and audible alarms should be tested to demonstrate the following:

.1 the visual indication may not be extinguished by the operator;

.2 they should be set at a level that alerts operators but does not interfere with the safe operation of the ship; and

.3 they should be distinguishable from other alarms.

3.3 System test requirements

3.3.1 After installation, a functionality test should be carried out. The test should represent the presence of water at the detectors for every level monitored. Simulation methods may be used where the direct use of water is impracticable.

3.3.2 Each detector alarm should be tested to verify that the pre-alarm and main alarm levels operate for every space where they are installed and indicate correctly. Also, the fault monitoring arrangements should be tested as far as practicable.

3.3.3 Records of testing of alarm systems should be retained on board.

4 MANUALS

4.1 Manuals should be provided on board and should contain the following information and operational instructions:

.1 a description of the equipment for detection and alarm arrangements together with a listing of procedures for checking that, as far as practicable, each item of equipment is working properly during any stage of ship operation;

.2 evidence that the equipment has been type tested to the requirements of 2.1 above;

.3 line diagrams of the detection and alarm system showing the positions of equipment;

.4 installation instructions for orientation, setting, securing, protecting and testing;

.5 list of cargo groups for which the detector is suitable for operating in a 50% seawater slurry mixture (see 2.1.1.2);

.6 temperature range for which the equipment is suitable;

.7 procedures to be followed in the event of equipment not functioning correctly; and

.8 maintenance requirements for equipment and system.

4.2 Manuals for bilge alarm systems used as water level detection systems are to contain the following information in addition to that in 4.1 (see paragraph 5.3 of these performance standards):

.1 procedure for switching to the alternative arrangements provided for occasions when the bilge alarm system cannot be used as a water level detection system; and

.2 list of cargoes for which alternative provisions are to be used.

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ANNEX 36

DRAFT REVISED MSC-MEPC CIRCULAR

ORGANIZATION AND METHOD OF WORK OF THE MARITIME SAFETY COMMITTEE AND THE MARINE ENVIRONMENT PROTECTION COMMITTEE AND THEIR SUBSIDIARY BODIES

1 The Maritime Safety Committee, at its 105th session (20 to 29 April 2022), and the Marine Environment Protection Committee, at its [seventy-eighth session (6 to 10 June 2022)], approved the revised document on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies*, as set out in the annex, which reflects the decision of the Committees to introduce an enhanced process for the consideration of human element issues by IMO bodies particularly during consideration of amendments to mandatory and non-mandatory instruments.

2 Members are invited to apply the annexed document with immediate effect, as appropriate, and to bring it to the attention of their representatives at relevant IMO meetings, advising them to strictly observe its provisions.

3 This circular revokes MSC-MEPC.1/Circ.5/Rev.2 and MSC-MEPC.7/Circ.1.

ANNEX

DRAFT ORGANIZATION AND METHOD OF WORK OF THE MARITIME SAFETY COMMITTEE AND THE MARINE ENVIRONMENT PROTECTION COMMITTEE AND THEIR SUBSIDIARY BODIES

Table of contents

1 INTRODUCTION

Purpose and application

1.1 The purpose of this document is to provide a uniform basis for the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) and their subsidiary bodies to conduct their work in an efficient and effective manner and to strengthen the linkage between the Organization's strategy, the work of the Committees and the biennial budget, with a view to achieving IMO's mission over a biennium. This in turn will enable the Committees to respond successfully to the needs for enhanced maritime safety, maritime security and protection of the marine environment, thus providing an efficient mechanism towards achieving the desired goals of the Organization.

1.2 Proper application of the document will also enhance the ability of Committee members and delegations to meetings of subsidiary bodies of the Committees to cover the full spectrum of IMO activities relevant to their work and thus provide for their effective participation in the rule-making process of the Organization. It is also expected that the document will enable the Committees to further improve their decision-making functions.

1.3 The document is applicable to the work of the Committees and their subsidiary bodies as well as to that of working, drafting and correspondence, intersessional working and other groups set up by these bodies. The Chairs of the Committees, subsidiary bodies, and working, drafting, intersessional working and other groups as well as coordinators of correspondence groups should make all efforts to ensure strict compliance with the document.

1.4 The document will be kept under review and will be updated as necessary in the light of experience gained in its application, taking into account the document on *Application of the Strategic Plan of the Organization* (resolution A.1111(30)).

Objectives

1.5 The provisions of this document are aimed at achieving the following objectives:

.1 to align and strengthen the planning and reporting processes by linking agenda-setting and reporting clearly to the Strategic Plan;

.2 to strengthen the linkage between outputs on the biennial agenda and the resources required to deliver the outputs;

.3 to facilitate the efforts of the Committees in controlling and monitoring the Organization's work;

.4 to promote discipline in adherence to the planning procedures and documents;

.5 to promote objectivity, clarity and realistic time frames in the establishment of biennial agendas by the Committees and their subsidiary bodies;

.6 to ensure maximum possible participation by all Member States and by organizations with observer status in the work of the Committees and their subsidiary bodies; and

.7 to establish responsibilities and promote involvement in the planning and reporting processes.

2 DEFINITIONS

For the purpose of this document, the following definitions apply:

.1 *IMO organs* are the Council and committees of the Organization specified in Article 11 of the IMO Convention, including their subsidiary bodies.

.2 *Strategic Plan* is the Strategic Plan for the Organization for a six-year period as adopted by the Assembly, which includes key strategic directions to enable IMO to achieve its mission.

.3 *Output* is an item to be delivered by one or more IMO organs during the current biennium or accepted for a subsequent biennium.

.4 *Agenda* is a list of outputs for discussion at a particular meeting.

.5 *Biennial agenda* is a list of outputs to be delivered by a Committee or subsidiary body during a biennium.

.6 *Post-biennial agenda* is a list of outputs accepted by the Committees in one biennium that are to be delivered or initiated in the next biennium.

3 COORDINATION OF WORK

3.1 The Committees should function as policymaking bodies and their subsidiary bodies as purely technical bodies.

3.2 The Committees should routinely examine their outputs, allocate work to their subsidiary bodies, review the allocation of meeting weeks to each body and approve their respective biennial and provisional agendas, taking into account any recommendations made by meetings of the Committees' and subsidiary bodies' Chairs, convened as provided in paragraph 3.4.

3.3 The Committees should regularly review the status of all conventions, protocols and other major instruments under their purview.

3.4 The Committee Chairs may convene a meeting of Chairs of the Committees' subsidiary bodies at least once a year. This meeting should preferably take place at the spring session of MSC or MEPC, to advise the Committees on subjects such as those referred to in paragraph 3.2, ensure coordination of the work and examine other matters pertinent to the effective conduct of business and management of the work of the Committees and their subsidiary bodies.

3.5 The Committee Chairs should, at the end of the first year of the biennium, submit to their respective Committees a joint plan covering the activities, priorities and meetings of the Committees and their subsidiary bodies for the coming biennium, for consideration in the subsequent year.

3.6 When both Committees have been charged by the Council, Assembly or a conference with considering a specific item and one Committee has finalized its consideration, the other Committee should consider it at its first subsequent session.

3.7 When an issue is transferred to one of the Committees by another committee of the Organization for specific action, the Committee, before including the subject in question in the biennial agenda, should decide that the provisions of section 4, as appropriate, are fully satisfied, even if the issue, in accordance with the criteria of the referring committee, satisfies the requirements of resolutions A.500(XII), A.777(18) and A.900(21).

4 WORK PLANNING AND DELIVERY PROCESS

Outputs

4.1 The Committees shall identify, in a timely manner, the outputs to be included in the list of outputs for the next biennium, and the Secretariat should develop its Business Plan, as such identification provides a basis for making an estimate of the budget required for that biennium.

4.2 In the process of constructing the list of outputs for the next biennium, the following should be included:

.1 continuous and annual outputs within the current list of outputs;

.2 outputs that have not been completed;

.3 outputs from the post-biennial agenda, subject to resource availability; and

.4 any other proposals for new outputs, following their assessment in accordance with the provisions in paragraph 4.6.

4.3 Decisions on the list of outputs for the next biennium shall be guided by the strategic directions in the Strategic Plan and shall take due account of:

.1 the specific necessity for an output to be started during the current biennium;[2]

.2 the potential impact that the inclusion of an output in the biennial agenda may have in the timely delivery of outputs during the biennium;

.3 the potential impact that the inclusion of an output may have on the workload of the Committees and their subsidiary bodies delivering the output;

.4 the personnel and budgetary resources available;

.5 the potential adverse impacts on the ability of the Organization to meet its objectives if a decision is made not to accept a proposal for inclusion of an output in the biennial or post-biennial agendas; and

.6 the potential impact that the inclusion of an output may have on small island developing States (SIDS) and the least developed countries (LDCs).

4.4 Outputs may be revised during the biennium by the Committees, taking into account the provisions of paragraph 4.3, if subsequently endorsed by the Council.

[2] The normal action will be for outputs, if accepted, to be placed on the post-biennial agenda, and only in exceptional circumstances will outputs be added to the biennial agenda and current list of outputs.

4.5 The overview of the Organization's overall planning hierarchy and its links to related processes, and of the Organization's strategic planning process and its related planning and reporting flows during the course of a biennium are shown in diagrams 1 and 2 contained in annex 1 to the document on *Application of the Strategic Plan of the Organization* (resolution A.1111(30)).

Submission of proposals for new outputs

4.6 To enable the Committees to carry out a proper assessment of proposals for new outputs, submissions containing such proposals must, at a minimum, contain the information, including demonstration and documentation, set out in annex 1 (see also annexes 5 and 6).

4.7 The Committees may receive the results of a Formal Safety Assessment (FSA) study carried out in accordance with *Revised guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process* (FSA Guidelines) (MSC-MEPC.2/Circ.12/Rev.2). The criteria in paragraph 4.3 also apply to the outcomes of an FSA study that may be regarded by the Committees as proposals for new outputs (see also paragraph 4.17).

4.8 Member States should refrain from submitting to the Committees proposals for new outputs under specific agenda items. The Secretariat should not accept such submissions and should advise the submitting Administrations accordingly.

4.9 Proposals for new outputs shall not be submitted to a subsidiary body. A subsidiary body shall not undertake work on outputs or expand the scope of outputs unless directed or authorized to do so by its parent organ.

4.10 Proposals for new outputs may be developed and submitted by a subsidiary body when such proposals arise from other outputs already on the agenda of that subsidiary body.

4.11 Proposals for the inclusion of outputs submitted to the Committees by non-governmental organizations shall be co-sponsored by Member States.

4.12 Follow-up action in response to specific requests for action emanating from the Assembly and diplomatic conferences convened by IMO, United Nations conferences and bodies, regional intergovernmental conferences and other international and intergovernmental organizations, etc. shall be evaluated in the light of paragraph 4.3, unless they are specifically identified as urgent matters requiring immediate actions, and it is demonstrated that the risk of not acting will adversely affect the Organization's ability to meet its purposes.

Preliminary assessment by the Committees' Chairs of proposals for outputs

4.13 In order to facilitate the consideration of proposals for new outputs by the Committees, the Chair of the Committee concerned should undertake a preliminary assessment of such proposals. The Chair should, for that purpose, be supported by the Vice-Chair and the Secretariat and should consult the Chair of any subsidiary body concerned.

4.14 The outcome of the preliminary assessment should be submitted to the Committee concerned for consideration and approval, and should include the appraisal by the Chair of:

.1 whether the proposal complies with the requirements for the submission of proposals for outputs, as specified in paragraph 4.6;

.2 whether the proposal complies with the criteria specified in paragraph 4.15;

.3 whether the demonstrated need of the proposal requires its inclusion on the biennial agenda; and, if so; and

.4 whether the agenda of the Committee can absorb the work associated with the output.

Assessment of proposals for outputs

4.15 Before deciding to accept a proposal for a new output, the Committee concerned shall carry out an assessment of the proposal against the following criteria:

.1 Is the subject addressed by the proposal considered to be within the scope of the mission of IMO?

.2 Does the proposal involve the exercise of functions conferred upon a Committee by or under any international convention or related instrument?

.3 Has a need for the output been justified and documented?

.4 Has an analysis been provided that justifies and documents the practicality, feasibility and proportionality of the proposed output?

.5 Has the analysis of the issue sufficiently addressed both the cost to the maritime industry and the relevant legislative and administrative burdens?[3]

.6 Are the benefits (e.g. enhanced maritime safety, maritime security, protection of the marine environment, or facilitation of maritime traffic) that are expected to be derived from the inclusion of the proposed output clearly stated?

.7 Do adequate industry standards exist or are they being developed?

.8 Has the proposed output been properly specified in SMART terms (specific, measurable, achievable, realistic, time-bound)?

.9 Does the completed checklist for addressing the human element (see annex 5) demonstrate that the human element has been sufficiently considered and addressed?

.10 If inclusion of the output in the current biennium is proposed, is this action properly justified?

.11 Would a decision to reject or postpone the commencement of the work in relation to the proposal pose an unreasonable risk to the Organization's overall mission?

4.16 Nothing in this document shall prohibit the Committees from taking immediate action on urgent matters if the risk of not acting will adversely affect the Organization's ability to meet its purposes.

4.17 Paragraph 4.15 above is also applicable to the outcome of an FSA study (see also paragraph 4.7). Annex 6 provides guidance for considering and reviewing the outcomes of FSA studies.

[3] Refer to the checklist in annex 6, which should be completed by all proponents of outputs and attached to their proposals for consideration by the Committees. The Committees may also use the checklist before adopting new, or amending existing, mandatory instruments, in order to satisfy themselves that administrative requirements have been minimized to the greatest extent possible.

Decision on acceptance and inclusion of outputs

4.18 Based on its assessment in accordance with paragraph 4.15, having taken due account of the Chair's appraisal of the proposal in accordance with paragraphs 4.13 and 4.14, a Committee may decide that:

.1 the proposal is not within the scope of the mission of the Organization and should not, therefore, be accepted for inclusion;

.2 the need has not been sufficiently demonstrated and therefore the output should not be included;

.3 the human element has not been sufficiently considered and addressed, and therefore the output should not be included;

.4 for outputs for which extensive work is required, such as the revision of conventions or the preparation of codes, the Chair of the associated body, or the coordinating body if applicable, should be invited, with the support of the Secretariat, to prepare a comprehensive and coherent plan of work in order to inform the Committee of the full impact of the proposed output before it finalizes its decision on the output;

.5 the urgency of the proposed action did not justify inclusion within the current biennium, and therefore accept the output for inclusion in the next biennium;

.6 the implications for the present workload of the Organization are unacceptable within the current biennium, and therefore accept the output for inclusion in the next biennium; or

.7 the demonstrated need for the output is such that it should be included, together with a target date for completion, in the biennial agenda, provided it is satisfied that the implications for the workload and planning are acceptable.

Mission	**Need to carry out the work**	**Human element considered and addressed**	**Urgency to deliver the output**	**Workload/personnel and budgetary resources**	**Decision**
Within the mission of the Organization	Demonstrated	Demonstrated	Justified	Implication of workload and planning are acceptable within the current biennium	Accept output for inclusion within the current biennium
				Implications for the present workload of the Organization are unacceptable within the current biennium	Accept output for inclusion in the next biennium
	Demonstrated	Demonstrated	Not Justified	Acceptable to next biennium	Accept output for inclusion in the next biennium
	Not demonstrated	Not demonstrated	Not Justified	No need to further consider	Output not to be accepted for inclusion
Outside the mission of the Organization	No need to further consider	No need to further consider	No need to further consider	No need to further consider	Output not to be accepted for inclusion

4.19 Following a decision by a Committee to include an output in its biennial or post-biennial agenda, it shall decide whether the output contributes to the delivery of a strategic direction. Outputs that are not directly related to the strategic directions can be accepted as "Other work".

4.20 Upon a decision by a Committee to include an output in its post-biennial agenda, the Committee shall include the accepted output, and the timescale for completion, in its proposals for the list of outputs for the next biennium.

4.21 The Committees shall report on their decisions on proposals for outputs in their regular reports to the Council, for endorsement and in order to facilitate the monitoring of the delivery of current biennial agendas and the planning of future work.

4.22 In pursuance of resolution A.998(25) on *Need for capacity-building for the development and implementation of new, and amendments to existing, instruments*, the Committees should assess the implications for capacity-building and technical cooperation and assistance against the criteria for identification of capacity-building implications, set out in annex 2.

Decision on inclusion of outputs in the biennial agenda of subsidiary bodies

4.23 A decision by a Committee to include an output in the biennial agenda of a subsidiary body shall include clear and detailed instructions for the work to be undertaken by the subsidiary body or bodies concerned, preferably by establishing the terms of reference under which such work should be undertaken.

Coordination of outputs included in the agenda of more than one subsidiary body

4.24 In deciding to include an output on the agenda of more than one subsidiary body, the Committee shall:

.1 designate the subsidiary body that is to coordinate the work so as to avoid duplication, maintain consistency in the standards being developed and ensure effective communication between the subsidiary bodies concerned;

.2 ensure that the coordinating subsidiary body can complete the work by the target completion year;

.3 ensure that only those subsidiary bodies essential for the completion of the work will be involved, in order to avoid superfluous work and documentation;

.4 ensure that the work is included in the biennial agendas of all the subsidiary bodies concerned;

.5 ensure that all the subsidiary bodies concerned are provided with the instructions related to the output, including the completed checklist for addressing the human element (see annex 5) for consideration during their inputs to the work;

.6 ensure that the coordinating subsidiary body reports to its parent organ(s) on the status of the work; and

.7 for interrelated outputs contributing to the same overall objective, designate the subsidiary body to oversee the consistency of the work on those outputs.

Additional considerations

4.25 Submissions to the Committees or subsidiary bodies highlighting problems or shortcomings identified in a particular area(s) of maritime safety, maritime security or protection of the marine environment should, in general and where possible, also suggest appropriate solutions.

4.26 When new constructional requirements have been proposed for new ships, the Committees and subsidiary bodies should, in order to minimize the unavoidable gaps in safety standards between new and existing ships, consider applying the proposed new requirements, or any modifications to them, to existing ships using the *Interim guidelines for the systematic application of the grandfather clauses* (MSC/Circ.765-MEPC/Circ.315).

4.27 The human element is complex and multidimensional. It affects maritime safety, maritime security and protection of the marine environment. The Committees and subsidiary bodies should consider the human element whenever new requirements are developed and existing requirements are reviewed, by taking into account the human element principles, as set out in the annex to resolution A.947(23) on *Human element vision, principles and goals for the Organization*.

4.28 Outputs for which extensive work is required, such as the preparation of codes, should, when appropriate, be placed on the provisional agendas of alternate sessions of the bodies concerned to allow adequate time for preparatory work by delegations.

4.29 In respect of subjects requiring research, contributions from other organizations and appropriate entities should be encouraged and taken into account. Exchange of information on technological development should be encouraged.

4.30 In the context of resolution A.911(22) on *Uniform wording for referencing IMO instruments*, subsidiary bodies should be guided in their work, as appropriate, by the guidelines annexed thereto.

4.31 Substantial modifications of draft amendments to mandatory instruments being considered by the Committees with a view to adoption should be accepted for discussion only if they have been submitted in writing. However, in exceptional circumstances, where the draft amendments under consideration include significant discrepancies or omissions, or where serious difficulties in their application can be foreseen, the Committees may accept to discuss oral proposals aimed at resolving any problems identified.

Management, control and reporting

4.32 In implementing the list of outputs, proper management and control mechanisms shall be in place to ensure that:

.1 biennial agendas and agendas are both clearly linked to the Strategic Plan, including the list of outputs;

.2 the objectives of the Strategic Plan can be met within the resource constraints of the Organization and its membership;

.3 the Organization's response to changes in the environment within which it operates is consistent with the Strategic Plan; and

.4 monitoring and reporting are such that progress on biennial agendas is explicitly linked to progress made on outputs.

4.33 In order to provide a transparent link between the Strategic Plan and the Organization's work, the following principles shall be applied:

.1 the list of outputs shall – together with the Secretariat's Business Plan – form the basis of the biennial work of all the IMO organs and the budget of the Organization;

.2 the items contained in the agendas and biennial agendas of all IMO organs shall all be outputs in the list of outputs or included in the Secretariat's Business Plan;

.3 the biennial agendas of the Committees and their subsidiary bodies shall follow format 1 set out in annex 3 and should be annexed to the reports of each session;

.4 for outputs with target completion dates within the current biennium, the biennial agenda shall specify the planned year of completion and include any tasks that are to be completed on an annual basis;

.5 for an action that is expected to take more than one biennium to complete, the list of outputs shall specify the planned year of completion; the responsible Committee shall review the relevant output at the end of the biennium to assess the progress made and make a recommendation on whether to include it in the next list of outputs;

.6 continuous items are discouraged, but in those cases where they are deemed unavoidable it is still necessary for them to be given a "SMART" definition so that progress during the biennium can be assessed; and

.7 documents submitted to the Committees and their subsidiary bodies shall clearly demonstrate the direct relation between the proposals they contain and the output to be delivered under the relevant agenda item, on the basis of the list of outputs.

4.34 Reports on the status of outputs included in the list of outputs shall follow format 1 set out in annex 3, and shall be annexed to the reports of each session of the Committees and their subsidiary bodies.[4] Such reports shall identify new outputs accepted for inclusion in the biennial agendas.

4.35 In preparing their own reports, the Committees and their subsidiary bodies shall incorporate all reports they have received since their previous report on the status of outputs.

4.36 The Committees shall establish and maintain post-biennial agendas which should follow format 2 set out in annex 3. These shall be annexed to the reports of each session. For planning purposes, the subsidiary bodies shall also maintain a list of the accepted outputs in the Committees' post-biennial agendas for outputs under their purview.

Responsibilities

[4] Should an associated organ not have been requested to consider an output during a session in the biennium, that organ is not required to include the specific output in its biennial agenda for that session.

4.37 Member States and the Secretariat shall ensure consistency and discipline in the administrative management of the planning and reporting cycle.

4.38 Accordingly, the Chairs, Vice-Chairs and secretaries of the Committees and their subsidiary bodies have a specific responsibility for effective management of the planning and reporting cycle and for consistent and rigorous application of this document and the document on *Application of the Strategic Plan of the Organization* (resolution A.1111(30)).

4.39 In order to fulfil the function mentioned in paragraph 4.38, well-established cooperation and coordination are expected between the Chairs, Vice-Chairs and secretaries of the Committees and their subsidiary bodies by all available means, including face-to-face meetings and teleconferences, as deemed necessary.

5 WORKING ARRANGEMENTS

Committees and subsidiary bodies

5.1 The subsidiary bodies should, as necessary, operate under the instructions of both MSC and MEPC and should report on specific outputs directly and separately to the Committee that has sought their expert advice, rather than reporting to both Committees.

5.2 The subsidiary bodies should periodically review their terms of reference to ensure that they accurately reflect the work being carried out.

5.3 The Committees should periodically review the necessity for the continued existence of their subsidiary bodies.

5.4 The subsidiary bodies should not recommend the convening of working groups during sessions of a Committee without prior consultation by the Chair of the subsidiary body concerned with the Chair of that Committee.

5.5 A subsidiary body may request a contribution from another body, in which case the latter should be allowed sufficient time to prepare its contribution, taking into account its outputs.

5.6 The Committees should not, as a rule, permit any subsidiary body to commence work on the review or improvement of provisions already approved by it until sufficient experience has been gained from the application of such existing provisions.

5.7 Subsidiary bodies should focus their efforts on carrying out the technical work entrusted to them and should not normally, without good reason, reopen discussions on the need or the compelling need for an output, whether it is on their agenda or not.

5.8 With the aim of facilitating the technical work being carried out effectively and efficiently, the proponent(s) of proposals for new outputs should ensure that sufficient and relevant information, in line with the need or compelling need as determined by the Committee, is made available to the subsidiary body when embarking on its technical work. This shall include the completed checklist on addressing the human element (see annex 5) to ensure that the human element is considered and addressed during the course of the work.

5.9 Subsidiary bodies should not expand the scope of existing outputs unless directed or authorized to do so by a Committee. Subsidiary bodies should not develop amendments to, or interpretations of, any relevant IMO instrument without prior authorization from a Committee. However, in compliance with paragraph 4.9, when seeking a Committee's authorization to act

as provided in the previous two sentences (or when spontaneously proposing an output for the current biennium or a new output to be accepted for inclusion in a Committee's post-biennial agenda), subsidiary bodies should ensure that their request complies with the provisions of paragraphs 4.3, 4.6 and 4.15, as appropriate. As subsidiary bodies may not have sufficient time to develop the required information, given that their biennial agendas are usually only discussed at the end of their sessions, interested delegations should, in consultation with the subsidiary body Chair and the Secretariat, prepare the information, which should accompany the proposal, necessary for the Committee to decide whether an output should be included in the subsidiary body's biennial agenda or in a Committee's post-biennial agenda.

5.10 Subsidiary bodies should not, as a rule, issue circulars, which are supposed to be issued only after approval by the Committees. However, in exceptional cases, subsidiary bodies may issue circulars within their area of competence, subject to endorsement of their action by the Committee or Committees concerned at their first subsequent session.

5.11 Subsidiary bodies should avoid developing unified interpretations of guidelines. In cases where the existing text of guidelines is vague and therefore needs modification, the subsidiary body concerned should amend the guidelines accordingly, in lieu of developing a unified interpretation.

5.12 When considering their outputs and/or their provisional agendas for the following session, subsidiary bodies should seek the advice of the Committees in the case of outputs for which no submissions have been received for two consecutive sessions.

Guidance on the selection of outputs for the provisional agenda

5.13 Subsidiary bodies should select outputs for their provisional agendas in a manner ensuring that proper consideration is given to important and urgent issues, taking into account:

.1 the number of working days of each session; and

.2 the number of working and drafting groups that the subsidiary body intends to establish.

5.14 Outputs should be selected first from the biennial agenda and, where the subsequent session will occur in the coming biennium, from the accepted outputs included in the Committee's post-biennial agenda.

5.15 The total number of selected outputs and the workload of the subsidiary bodies' provisional agendas should be kept at an appropriate and manageable level, ensuring high-quality output. Outputs selected from the Committees' post-biennial agendas should be included in the subsidiary bodies' agendas only when the outputs of the relevant biennial agenda are completed and the capacity of the subsidiary body allows the inclusion of additional outputs.

5.16 The remaining outputs not selected will be kept in abeyance and will be transferred to the provisional agendas of the subsidiary bodies as and when selected by them and endorsed by the Committee concerned, taking into account the overall workload of the subsidiary bodies responsible for the work.

Working, drafting, correspondence, intersessional working and other groups

Working groups

5.17 The Committees and their subsidiary bodies should keep the number of working groups formed during their sessions to a minimum; however, a maximum of three working groups may be established when necessary, bearing in mind the difficulties that small delegations experience in being represented in such groups and the fact that such groups work without interpretation. When a working group has completed its task and has been terminated, no other working group should be convened in its place during the same session. To that end, subsidiary bodies should endeavour to consider, as appropriate, items on their agenda in plenary, rather than establishing groups to deal with them.

5.18 Where more than three working groups are needed to deal with different subjects in one session, the Committees and subsidiary bodies should establish an order of priority for possible subject items and decide accordingly. Where more than three unrelated topics need to be covered by independent working groups over several sessions, arrangements may be made for groups concerned to meet at alternate sessions of the Committee and subsidiary body concerned, within the maximum of three working groups per session.

5.19 Working groups may start work on the first morning of a session under draft terms of reference presented by the Chair of the Committee or subsidiary body concerned, pending formal discussion of those terms of reference under the relevant agenda item. However, these measures should be an option and be decided at the meeting with caution. Whenever possible, terms of reference for working groups should be agreed at the previous sessions of the parent Committee or subsidiary bodies. Another option is for the draft terms of reference of working and drafting groups issued at the beginning of a session, in accordance with paragraph 5.36, to identify items on which groups may start working on the first morning of the session, without prior consideration of the related agenda items in plenary.

5.20 In principle, a working group should not have splinter groups. However, where it is necessary to establish one or more splinter groups to facilitate efficient work, the working group should do so by unanimous agreement and should consider and agree to the outcome of the splinter group's work before incorporating it in its report. Splinter groups, if established, should meet outside normal working hours, unless the working group decides otherwise to improve the efficiency of the work.

5.21 Subsidiary bodies' working groups, if circumstances and time constraints so dictate, may submit their reports directly to the Committees if authorized to do so by the parent body, following consultations between the Chair of the group, the Chair of the parent body and the Chairs of the Committees concerned.

5.22 When appropriate, working groups should make full use of the five working days of a session in submitting their reports to the next session of their parent body. When working group reports are to be prepared during a session, all efforts should be made to keep them as short as possible.

5.23 Permanent working groups should be avoided. However, if there is a need for such a group, a clear justification and appropriate terms of reference should be provided by the subsidiary body concerned.

Drafting groups

5.24 In addition to working groups, the Committees and their subsidiary bodies may form drafting groups. In no case should more than five groups (e.g. three working and two drafting groups) meet simultaneously during a session. If additional drafting groups are needed, they should meet outside normal working hours.

Other groups

5.25 In addition to working and drafting groups, the Committees and their subsidiary bodies may form other groups, such as technical or review groups, as required under relevant conventions. Depending on the necessity and urgency of the issue to be considered, such groups may meet in addition to or in lieu of working or drafting groups.

Correspondence groups

5.26 To facilitate the consideration of an issue, correspondence groups may be established by the Committees or subsidiary bodies and be instructed to work on a consolidated draft text prepared by a "lead country" or the Secretariat, provided that the Committee has agreed to consider the issue and has endorsed terms of reference for the group (see also paragraph 5.36). Thus, through consultation between interested delegations by correspondence, the volume of documents submitted and processed can be reduced.

5.27 Correspondence groups should utilize modern communications technology, such as the Internet, as much as possible.

5.28 The work of a correspondence group (e.g. the receipt and processing of comments and suggestions) should not pre-empt formal consideration of the relevant issue by the parent body concerned or the positions taken by Member States or international organizations participating in the group.

5.29 Normally, the Committees and subsidiary bodies should not establish more than three correspondence groups, although this number may be increased where the urgency of the matter under consideration so justifies. Sub-groups within a correspondence group should not be established. No official meetings of members of correspondence groups should be held without the prior approval of the Committee(s).

5.30 Participation in correspondence groups is open to all delegations (Member States and organizations) that can provide the necessary expertise on a timely basis or that have a particular interest in the issue under consideration. Any Member State or international organization can join in the work of a correspondence group once the group is established; and the group should accept contributions at any stage of its work.

5.31 When establishing a correspondence group, a "lead country", "lead organization" or the Secretariat should be designated to coordinate the group's work. Responsibilities of group coordinators include:

.1 preparation, maintenance and circulation of the list of participants;

.2 establishment of deadlines for the preparation of draft texts and receipt of comments and proposals concerning them;

.3 preparation and circulation of draft texts and comments concerning them;

.4 preparation and submission to the Secretariat of the report of the correspondence group, including any consolidated draft texts (see paragraph 5.35); and

.5 introduction of the above-mentioned report and consolidated draft texts to the appropriate Committee or subsidiary body.

5.32 Responsibilities of participants include:

.1 active participation in the work of the group;

.2 compliance with the deadlines established for the submission of comments on draft texts, proposals, etc.; and

.3 relaying to other group members copies of comments, proposals, etc. submitted to the group coordinator.

5.33 The responsibilities of the Secretariat, in cases where the Secretariat acts as a group coordinator, should be the same as those described in paragraph 5.31 above. The Secretariat may also be requested to circulate consolidated draft texts, etc. on behalf of the group coordinator.

5.34 The results of work carried out by correspondence groups should normally take the form of a consolidated draft text reflecting the information received from members of the group. Such texts should be accompanied by a succinct report summarizing the work and indicating which members have provided input to the process. Where it has not been possible to prepare an agreed consolidated draft document, the texts or issues on which there was disagreement should be clearly indicated in the draft document or the report, as appropriate.

5.35 Correspondence group reports should be submitted to the first session of the parent body after the conclusion of the group's work, in time to meet the deadline established for consideration of substantive documents, in accordance with the provisions of paragraph 6.12. Normally the work of correspondence groups should not overlap with sessions of the parent Committee or subsidiary body. If the group has not finalized its work in time to meet the applicable deadline, a progress report should be made to the parent body.

Terms of reference of working, drafting and correspondence groups

5.36 When working, drafting and correspondence groups are to be formed, draft terms of reference should be prepared, following consultations between the Chair of the relevant Committee or subsidiary body and the Secretariat, for approval by plenary. In the case of working and drafting groups, these draft terms of reference should be issued by the Secretariat at the beginning of the session for agreement by plenary before the groups in question start their work. Thereafter, the agreed terms of reference should not be modified or extended without the parent body's prior consent.

Intersessional working groups

5.37 Subject to endorsement by the Council, intersessional meetings of working groups may be convened without interpretation services. Intersessional meetings should be held only if considered to be absolutely essential and after careful consideration of their necessity by the relevant Committee on a case-by-case basis, taking into account the priority and urgency of the specific matter that such meetings will be invited to address. Intersessional meetings of such groups should be held at IMO Headquarters immediately before or after a session of the

parent body concerned. Other arrangements may be considered. However, no arrangements should be made in respect of an intersessional meeting until such a meeting has been approved by the Committee. Intersessional working groups and technical groups should not be held at the same time as committee or sub-committee meetings.

6 PROCEDURES FOR PREPARATION AND SUBMISSION OF DOCUMENTS

Preparation of documents

6.1 Documents should be prepared in single spacing and be as concise as possible so as to facilitate their timely processing. In order to enhance the clear understanding of documents, the following should be observed:

.1 all documents should be preceded by a brief summary prepared in the form, and containing the information, indicated in the table below. Documents, especially proposals for the inclusion of an output, should demonstrate, where feasible, the linkages to the Strategic Plan by including, in the summary, references to the related strategic direction(s) and output(s):

SUMMARY	
Executive summary:	This description should be brief, outlining the proposed objective (an amendment, an Assembly resolution, a circular, information only, etc.), and include information on whether a proposal will have any financial implications for the shipping industry or for the IMO budget.
Strategic direction, if applicable:	A reference should be made to one or more relevant strategic directions in the Organization's Strategic Plan.
Output:	A reference should be made to one or more corresponding outputs in the biennial's list of outputs. If there is no corresponding output, an appropriate descriptive text should be included.
Action to be taken:	A reference should be made to the paragraph of the document that states the action to be taken by the committee, sub-committee, etc.
Related documents:	Other key documents should be listed to the extent that they are known to the originator of the document.

.2 substantive documents should conclude with a summary of the action the relevant body is invited to take; and

.3 information documents should conclude with a summary of the information they contain.

6.2 To facilitate their processing, documents should be submitted in Microsoft Word, using Arial font size 11, by email to:

info@imo.org	–	for consideration by MSC or MEPC;
ccc@imo.org	–	for consideration by the CCC Sub-Committee;
htw@imo.org	–	for consideration by the HTW Sub-Committee;
iii@imo.org	–	for consideration by the III Sub-Committee;
ncsr@imo.org	–	for consideration by the NCSR Sub-Committee;
ppr@imo.org	–	for consideration by the PPR Sub-Committee;
sdc@imo.org	–	for consideration by the SDC Sub-Committee;
sse@imo.org	–	for consideration by the SSE Sub-Committee;
etgroup@imo.org	–	for consideration by the E&T Group;
esph@imo.org	–	for consideration by the ESPH Working Group; and
fsa@imo.org	–	for consideration by the FSA Experts' Group.

Hard copies of documents may also be submitted or requested, to check that none of the text has been garbled during sending or conversion.

6.3 Documents made available at IMO, 13 weeks or more before a session, should not be introduced in the plenary unless the Chair decides that this is essential for the proper consideration of the matter concerned. Information documents and documents requiring no action by the Committees or their subsidiary bodies other than for their contents to be noted should not be introduced in the plenary.

6.4 To indicate the importance of documents containing proposed amendments to IMO instruments related to maritime safety, maritime security and protection of the marine environment which have been approved for adoption by MSC or MEPC, such documents will be identifiable on the IMO document website (IMODOCS) by background highlighting in pink.

6.5 Documents containing proposed amendments to mandatory instruments should be presented in a format that permits clear identification of the changes being introduced (e.g. use "strikethrough" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text).

6.6 Reports of the Committees and their subsidiary bodies should, in general, contain under each section only:

.1 a summary of key documents and a list of other documents submitted by Member States, international organizations or the Secretariat;

.2 a summary of the views expressed during consideration of an item that may have influenced the decision taken by the reporting body (but not allowing the reports to turn into summary records), with statements by delegations included only at their express request during the session; and

.3 a record of the decisions taken.

6.7 In drafting recommendations, codes or guidelines, cross references should, whenever possible, be made to texts and terminology previously developed by IMO or other organizations. This will avoid unnecessary duplication and reduce the need for excessively detailed provisions and for subsequent harmonization.

6.8 The Chairs of subsidiary bodies should **not** introduce their reports to the Committees as these should be taken as read.

6.9 With respect to urgent matters emanating from sessions of subsidiary bodies or IMO bodies other than the Council and the Assembly which have taken place less than 13 weeks before a session of a Committee, the Committee should consider only such urgent matters as may have been specified by it at a prior session. As a general rule, the Committee should not consider reports or matters emanating from any subsidiary body session which has taken place less than nine weeks prior to the Committee's session. In exceptional cases, a subsidiary body may invite the Committee to take action on a matter that the subsidiary body considers to be urgent and important emanating from a session that took place less than nine weeks prior to the Committee's session. In such cases, the subsidiary body Chair should consult the Committee Chair for approval of the contemplated action.

6.10 All concerned should be continuously aware of the financial and environmental impact of the volume of documentation generated by IMO meetings and should limit, to the greatest possible extent, the number of pages of documents submitted to such meetings. For information, the current arrangements in the Secretariat for the production of working papers during meetings are described in annex 4.

6.11 To encourage the action referred to in paragraph 6.10 above, documents other than information documents and reports from the Committees and subsidiary bodies, working, drafting, correspondence and other reporting groups and the Secretariat which contain more than 20 pages should not be translated in their entirety. They should include, for translation purposes, a summary of the document not longer than four pages, with the remaining content submitted as an annex in the language (e.g. English) that may be needed, for example, by working groups.

Submission of documents

6.12 To ensure that all documents are available at IMO Headquarters in all three working languages well in time for a session of a Committee or subsidiary body, so as to enable the timely study of documents and promote participation by all Members in the decision-making process of the Committees and their subsidiary bodies, the following provisions apply:

.1 as a general rule, documents, other than information documents and reports of Committees and subsidiary bodies, working, drafting, correspondence and other reporting groups and the Secretariat, should not contain more than 50 pages. In the case of reports from working, drafting, correspondence or other reporting groups and in other exceptional circumstances, this number of pages may be exceeded, provided that the deadline for receipt of the document by the Secretariat, as specified in sub-paragraphs .2 and .3 below, is extended by one week for every 20 pages exceeding 50 pages;

.2 documents containing proposals for inclusion of new outputs should be received by the Secretariat not later than 13 weeks before the opening of the relevant Committee session. They should be made available at IMO Headquarters and on the IMO document website, in the Organization's three working languages, not later than five weeks before the opening of the session;

.3 documents (including information documents) containing more than six pages of text (bulky documents) should be received by the Secretariat no later than 13 weeks before the opening of the relevant session of a Committee or subsidiary body. However, bulky information documents submitted in electronic format may be accepted by the Secretariat if they are

received no later than nine weeks before the session concerned. They should be made available at IMO Headquarters and on the IMO document website, in the Organization's three working languages, except for information documents (which should not be translated), not later than five weeks before the opening of the session;

.4 non-bulky documents commenting on those referred to in sub-paragraphs .2 and .3 above, or on items already on the agenda, should be received by the Secretariat no later than nine weeks before the opening of the relevant session of a Committee or subsidiary body. They should be made available at IMO Headquarters and on the IMO document website, in the Organization's three working languages, not later than five weeks before the opening of the session;

.5 notwithstanding the provisions of sub-paragraph .4 above, documents commenting on those referred to in sub-paragraphs .2, .3 and .4 above containing four pages or less should be processed if received by the Secretariat not later than seven weeks before the opening of the relevant session of a Committee or subsidiary body. These documents should start with a paragraph clearly indicating the document on which comments are made and stating that the document is submitted in accordance with the provisions of paragraph 6.12.5 of this document. They should be made available at IMO Headquarters and on the IMO document website, in the Organization's three working languages, not later than four weeks before the opening of the session;

.6 non-bulky information documents should be received by the Secretariat not later than nine weeks before the opening of the relevant session of a Committee or subsidiary body. They should not be translated and should be made available at IMO Headquarters and on the IMO document website not later than five weeks before the opening of the session. No action will be taken on the basis of an information document only, other than to take note of it;

.7 in addition and with reference to reports of subsidiary bodies on the basis of which a Committee is normally invited to take action, every possible effort should be made to ensure that such reports are made available at IMO Headquarters and on the IMO document website, in the Organization's three working languages, not later than five weeks before the opening of the session; and

.8 in the case of basic documents submitted to a Committee reporting on urgent matters emanating from sessions of subsidiary bodies referred to in paragraph 6.9 which met less than 13 weeks before the Committee's session, such basic documents should include as an annex the text (e.g. draft Assembly resolutions, draft MSC circulars) on which the Committee will be invited to take action.

6.13 The Secretariat should make every effort to ensure the timely posting of documents on the IMO document website. Member States and international organizations should also endeavour to submit documents as early as possible and not just by the relevant deadlines.

6.14 The Secretariat should strictly apply the above provisions concerning the submission of documents and not accept late submissions from Member States or international organizations. Any exemption from these provisions should have the prior authorization of the Chair of the Committee concerned, following consultations with the Secretariat. In exceptional circumstances, requiring immediate action by the Committee, a relevant document to that end consisting of no more than four pages should be received by the Secretariat not later than nine weeks before the opening of the session of the body concerned and be made available at IMO Headquarters, in the Organization's three working languages, not later than five weeks before the opening of the session. The Committee would consider such a document only if it decides to do so at the opening of its session.

6.15 In the exceptional cases referred to in paragraph 6.9, when a subsidiary body invites a Committee to take action on urgent matters emanating from a session that took place less than nine weeks prior to the Committee's session, documents commenting on those urgent matters containing four pages or less should be processed if received by the Secretariat not later than seven weeks before the opening of any session of the Committee concerned. Such documents should start with a paragraph clearly indicating the document on which comments are made and stating that the document is submitted in accordance with the provisions of paragraph 6.15 of this document. They should be made available at IMO Headquarters, in the three working languages, not later than four weeks before the opening of the session.

7 OBSERVANCE OF THE DOCUMENT

This document shall be observed strictly. This will assist delegations in preparing adequately for each meeting and enhance their participation in the debate and decision-making process during meetings. It will also prevent delegations from experiencing difficulties when developing national positions on subjects on the agenda of the two Committees or their subsidiary bodies. In order to promote efficiency in the conduct of work overall, Committee members should ensure that their colleagues attending sessions of other committees are fully informed of the outcome of the meeting that they have attended. Committee members should also ensure that their experts attending meetings of subsidiary bodies and working, drafting or correspondence groups are adequately informed and instructed with regard to any action necessary to give effect to decisions made by the Committees.

ANNEX 1

INFORMATION REQUIRED IN SUBMISSIONS OF PROPOSALS FOR INCLUSION OF AN OUTPUT

1 **IMO's objectives**: Provide evidence whether and how the proposal:

.1 is within the scope of IMO's mission; and

.2 contributes to the implementation of the strategic directions established in the Strategic Plan, if applicable; outputs that are not directly related to the strategic directions can be accepted as "Other work".

2 **Need**: Demonstrate and document:

.1 the need for the proposed output in terms of the risks or hazards which are deemed necessary to be addressed; and

.2 the evidence to support the perceived need.

3 **Analysis of the issue**: Provide an analysis of the proposed measure, including an assessment of its practicability, feasibility and proportionality.

4 **Analysis of implications**: Provide an analysis of the implications of the proposal, addressing the cost to the maritime industry as well as the relevant legislative and administrative burdens (including the proposed method(s) of fulfilling any resulting administrative requirement).

5 **Benefits**: Provide evidence that the benefits vis-à-vis enhanced maritime safety, maritime security or protection of the marine environment expected to be derived from the inclusion of the new item justify the proposed action.

6 **Industry standards**: Provide information on whether adequate industry standards exist or are being developed and the intended relationship between such standards and the proposed output.

7 **Output**: Specify the intended output in SMART terms (specific, measurable, achievable, realistic, time-bound) including the scope of application. If work on an output is expected to go beyond one biennium, the expected deliverables for each biennium should be detailed.

8 **Human element**: Demonstrate that the human element has been sufficiently considered and addressed during the development of the proposal by providing the completed checklist set out in annex 5 to this document.

9 **Urgency**: Provide, with reference to the current Strategic Plan, evidence of:

.1 the urgency of the proposed output including any proposal to include the proposed output on the biennial agenda; and

.2 the date that the proposed output should be completed.

10 **Action required**: Specify the action required by the IMO organ.

ANNEX 2

PROCEDURES FOR ASSESSING THE IMPLICATIONS OF CAPACITY-BUILDING REQUIREMENTS WHEN DEVELOPING NEW, OR AMENDING EXISTING, MANDATORY INSTRUMENTS

1 INTRODUCTION

1.1 Assembly resolution A.998(25) on *Need for capacity-building for the development and implementation of new, and amendments to existing, instruments* cautions that, unless the Council, the Committees and their subsidiary bodies adopt a cradle-to-grave approach in relation to matters concerning capacity-building, technical cooperation and assistance, the chances of success in the ratification and effective implementation of IMO instruments may be reduced by the level of unpreparedness or lack of capacity that Member States, in particular small island developing States (SIDS) and least developed countries (LDCs), experience at the point when implementation of such instruments is urgently required. Therefore, the development of this procedure is in keeping with the provisions of that resolution.

1.2 The assessment of capacity-building implications for the implementation of new, and/or amendments to existing, instruments is an iterative process that begins with the acceptance of the preliminary proposal and runs in parallel up to the process of its implementation.

1.3 These procedures do not prevent States from taking additional actions in promoting the advancement of the objectives of capacity-building through technical assistance or cooperation.

2 DEFINITIONS

For the purpose of these procedures, the following definitions apply:

2.1 *Capacity-building* means sustainable social, economic or legal measures undertaken through various means for the purposes of a comprehensive transformation of the performance of an Administration or industry player so as to implement and therefore comply with new or amended instruments.

2.2 *Technical assistance* is a methodology for providing capacity-building through bilateral and/or multilateral exchange of technical knowledge, resources or expertise to a party which has requested such assistance in order to enhance its technical capability to implement existing, new or amended instruments.

2.3 *Technical cooperation* refers to a methodology for providing capacity-building, through a multilateral effort, to a group of cooperating countries of a particular region in the form of training and exchange of expertise, knowledge and information, in support of their efforts aimed at promoting the implementation of existing, new and/or amended instruments.

2.4 *Instruments* refers to IMO conventions and other treaties.

3 PURPOSE AND OBJECTIVES

3.1 The purpose of these procedures is to give effect to resolution A.998(25), aimed at enhancing efforts to promote universal implementation of IMO instruments.

3.2 These procedures are intended to assist in the identification and assessment of capacity-building implications in the following cases:

.1 when a Committee approved a new instrument/amendments to existing instruments;

.2 during implementation of new instruments or amended instruments; and

.3 during the scheduling of capacity-building measures or activities.

3.3 These procedures apply to the Committees of the Organization and constitute a specific implementation response to resolution A.998(25).

3.4 These procedures aim at:

.1 promoting universal ratification and compliance with newly adopted IMO instruments;

.2 improving the level and quality of implementation of new and/or amended instruments; and

.3 promoting, as far as possible, a balanced level of implementation of new instruments.

4 PROCEDURE

4.1 The Committees should conduct an assessment of capacity-building implications by following the procedure in the flow chart in appendix 1 of these procedures.

4.2 Assessments of capacity-building implications should be initiated after the approval of a new instrument/amendment to existing instruments.

Assessment of capacity-building implications

4.3 In order to facilitate the assessment of capacity-building implications, the Committee should, if necessary, at the adoption stage of the new instruments or amended instruments, instruct the Drafting Group on Amendments to Mandatory Instruments to undertake an assessment of capacity-building implications, using the checklist for assessing the need for capacity-building contained in appendix 1 of these procedures.

4.4 The Drafting Group should consider comments and any further submissions thereto and, if appropriate, conduct further assessment and present its report and recommendations to the Committee. The outcome of the preliminary assessment should be submitted to the Committee concerned for consideration. This should contain the Drafting Group's appraisal of whether there are or will be capacity-building implications or need for technical assistance; a list of possible implications; and recommendations on the way forward.

4.5 The Drafting Group may refer a matter through the Committee for further consideration by another organ.

Post-assessment of capacity-building implications for implementation of new measures

4.6 When new measures have been approved, the Committee may request the Drafting Group to:

.1 conduct a post-assessment exercise using the criteria and mechanism contained in appendix 2 of these procedures to identify issues that require special focus when implementing technical cooperation and assistance activities; and

.2 prepare, for the Committee's consideration, a draft circular describing the possible capacity-building implications and recommendations for a course of action, for consideration by the Organization, the membership and/or industry.

5 TERMS OF REFERENCE OF THE DRAFTING GROUP

In conducting its assessment of capacity-building, the Drafting Group should be guided by the following terms of reference:

.1 consider a preliminary assessment of capacity-building and technical assistance actions;

.2 conduct an assessment and, when new measures have been approved, a post-assessment, of the capacity-building actions that may be included in the technical assistance or technical cooperation required by Administrations for the implementation of the instrument;

.3 in consultation with the industry and non-governmental organizations, conduct an assessment and, on implementing new measures, a post-assessment, of the capacity-building actions that may be required or expected of the shipping industry for the implementation of the instrument; and

.4 advise the Committee concerned of the implications for capacity-building relating to a new instrument or a proposed amendment to an existing instrument, whichever is being considered.

APPENDIX 1

Checklist for the identification of capacity-building implications

1 For Administrations

☐ Is new legislation required?

☐ Is there a requirement for new equipment and/or systems?

- Does equipment manufacturing capacity exist internationally?
- Do equipment repair/servicing facilities exist internationally?
- Is there capacity to develop new systems?

☐ Will the implementation require additional financial resources?

☐ Is there a need for additional human resources or new skills?

☐ Will there be a need to upgrade current infrastructure?

☐ Is there enough lead time towards implementation?

☐ Will a rapid implementation procedure be adopted?

☐ Is there a substantial modification of existing standards?

☐ Will a guide to implementation be needed?

2 For the industry

☐ Would the industry require new and/or enhancement of existing systems?

- Does capacity exist internationally to develop new systems?

☐ Is there a need for additional training of seafarers?

- Do related and validated training courses exist?
- Are sufficient simulation training courses available internationally?

☐ Will there be a requirement for new equipment?

- Does manufacturing capacity exist internationally?

☐ Is there repair/servicing and/or retrofitting and does maintenance capacity exist internationally?

APPENDIX 2

Checklist of issues requiring special focus when developing capacity-building related to the implementation of new measures

Capacity-building Measures Form

Instrument _____

Measure number _____ of _____

Required for
- ☐ Administration
- ☐ Industry

Implementation
- ☐ Prior to adoption
- ☐ Once adopted
- ☐ Prior to entry into force
- ☐ Once ratified
- ☐ Phased in

Description of capacity-building activity needed for the implementation of new measures:

_____

_____

_____

ANNEX 3

FORMAT 1: BIENNIAL STATUS REPORT

[Name of organ]									
Reference to SD, if applicable	**Output number[a]**	**Description**	**Target completion year[b]**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1[c]**	**Status of output for Year 2[c]**	**References[d]**
Notes:									
Notes:									

Notes:

a When individual outputs contain multiple deliverables, the format should report on each individual deliverable.

b The target completion year should be specified as a year, or indicate that the item is annual or continuous. This should not indicate a number of sessions.

c The entries under the "Status of output" columns are to be classified as follows:

- "completed" signifies that the output for the year in question has been duly finalized;
- "in progress" signifies that work on the output has been progressed, and that finalization is expected in the target completion year;
- "ongoing" signifies that the outputs relate to work of the respective IMO organs that is a permanent or continuous task;
- "postponed" signifies that the respective IMO organ has decided to defer the production of relevant outputs to another time (for example, until the receipt of corresponding submissions) and accordingly that the output has been included on the post-biennial agenda;
- "extended" signifies that further work is necessary and that the output will not be finalized as planned; and
- due to the nature of annual outputs, the status can either be "completed" or "postponed".

d References should be made to the relevant part of the organ's report on this item.

FORMAT 2: POST-BIENNIAL AGENDAS OF COMMITTEES

[NAME OF COMMITTEE]								
ACCEPTED POST-BIENNIAL OUTPUTS				Parent organ(s)	Associated organ(s)	Coordinating organ	Timescale	Reference
Number	Biennium[e]	Reference to strategic direction, if applicable	Description					

Notes:

[e] Biennium when the output was placed on the post-biennial agenda.

ANNEX 4

CURRENT ARRANGEMENTS IN THE SECRETARIAT FOR THE PRODUCTION OF WORKING PAPERS DURING MEETINGS

1 The details of how to handle the preparation of working papers produced during meetings, which are agreed at a coordination meeting held between the Conference Division and the relevant technical division(s) during the week preceding each meeting, will be conveyed by the Secretary of the IMO body to the Chair of that body, as well as the Chairs of the working and drafting groups.

2 To ensure that all working papers, including the draft report, are available when needed in all three working languages, these documents should be as concise as possible, with a limited number of pages containing new text. The following provisions apply:

.1 Advance text

Whenever possible, for working/drafting group reports, advance text should be provided to the translation sections. This could be whole annexes or documents prior to the meeting, or parts thereof submitted as the work of the groups progresses.

.2 Final text

Final text should be delivered to the translation sections as early as possible in the course of the meeting week as follows:

.1 Working papers – these should be delivered no later than 9 a.m. on the day of the report night, so that they may be processed during the day shift.

.2 Draft report – the night shift is to be dedicated to the processing of the draft report and will end at 1 a.m. on the following day. In order to meet the established deadline, items for the draft report not delivered throughout the week should be sent to the translation sections as early as possible on the report night, with the last remaining item to be delivered no later than 11 p.m.

ANNEX 5

MONITORING AND CONTROLLING CONSIDERATION OF THE HUMAN ELEMENT BY IMO BODIES

1 Introduction

1.1 Resolution A.947(23) on *Human element vision, principles and goals for the Organization* requests the Maritime Safety Committee and the Marine Environment Protection Committee to consider proposals for new or revised instruments or procedures relating to the safety of life at sea, security and the protection of the marine environment, taking into account its annexed human element vision, principles and goals.

1.2 These human element vision, principles and goals state:

"Vision

To significantly enhance maritime safety, security and the quality of the marine environment by addressing human element issues to improve performance.

Principles

a) The human element is a complex multidimensional issue that affects maritime safety, security and marine environmental protection. It involves the entire spectrum of human activities performed by ships' crews, shore-based management, regulatory bodies, recognized organizations, shipyards, legislators and other relevant parties, all of whom need to cooperate to address human element issues effectively.

b) The Organization, when developing regulations, should honour the seafarer by seeking and respecting the opinions of those that do the work at sea.

c) Effective remedial action following maritime casualties requires a sound understanding of human element involvement in accident causation. This is gained by thorough investigation and systematic analysis of casualties for the contributory factors and the causal chain of events.

d) In the process of developing regulations, it should be recognized that adequate safeguards must be in place to ensure that a single human or organizational error will not cause an accident through the application of these regulations.

e) Rules and regulations which address seafarers directly should be simple, clear and comprehensive.

f) Crew endurance, defined as the ability to maintain performance within safety limits, is a function of many complex and interacting variables including individual capabilities, management policies, cultural factors, experience, training, job skills and work environment.

g) Dissemination of information through effective communication is essential to sound management and operational decisions.

h) Consideration of human element matters should aim at decreasing the possibility of human and organizational error as far as possible.

Goals

a) To have in place a structured approach for the proper consideration of human element issues for use in the development of regulations and guidelines by all committees and sub-committees.

b) To conduct a comprehensive review of selected existing IMO instruments from the human element perspective.

c) To promote and communicate, through human element principles, a maritime safety culture, security consciousness and heightened marine environment awareness.

d) To provide a framework to encourage the development of non-regulatory solutions and their assessment, on the basis of human element principles.

e) To have in place a system for identifying and disseminating maritime interests studies, research and other relevant information on the human element, including the findings of marine and non-marine incident investigations.

f) To provide educational material for seafarers designed to increase their knowledge and awareness of the impact of human element issues on safe ship operations, and help them do the right thing.

g) To provide a framework for understanding the very complex system of interrelated human element factors, incorporating operational objectives, personal endurance concerns, organizational policies and practices, and environmental factors, in order to facilitate the identification and management of risk factors in a holistic and systematic manner."

2 Purpose

2.1 The purpose of this procedure and guidance is to meet goal (a) of resolution A.947(23):

"To have in place a structured approach for the proper consideration of human element issues for use in the development of regulations and guidelines by all committees and sub-committees."

2.2 The scope of this procedure is all outputs from MEPC and MSC and their subsidiary bodies.

3 Procedure

3.1 The relevant bodies shall ensure that human element issues are considered and assessed by following the procedure described below.

Preparation of a proposal for new output

3.2 A proposal for a new output shall involve completion of the checklist set out in the appendix of this procedure and its provision to the relevant Committee as per annex 1 of this document.

3.3 Any human element considerations shall be identified in preparing a proposal for a new output. The means by which they are addressed should be included in the instructions. Where insufficient information is available, an action plan shall be included by which the consideration may be fully addressed.

3.4 Human element or other necessary expertise shall be engaged to ensure satisfactory completion of the checklist.

Assessment of a proposal for new output

3.5 The relevant Committee shall:

.1 review the checklist to ensure that all human element risks have been considered and addressed; and

.2 ensure that terms of reference to subsidiary bodies include clear instructions on addressing the human element considerations identified in the completed checklist.

Work carried out on the output

3.6 Work on the output shall take account of the human element considerations, and the means by which they might be addressed, as identified in the completed checklist.

3.7 The relevant Committee, or subsidiary body, shall ensure that the identified human element considerations are addressed during the work.

3.8 Within the scope of the output, further human element considerations may be identified and addressed during the work.

3.9 The relevant Committee, or subsidiary body, shall ensure that appropriate human element expertise is made available.

Approval of work completed under the output

3.10 At the time of approval, the relevant Committee shall review the output to ensure that human element considerations, as identified in the checklist, were appropriately addressed in the final output.

4 Guidance for completing the checklist

General principles

4.1 Completion of the checklist should take account of both the intended output and its direct effects on the human element, as well as any potential unintended consequences.

4.2 It should also take into account the effects of both the circumstances prior to the implementation date, where modifications may be made, and those once implementation is complete.

4.3 Completion of the checklist should involve seeking input from seafarers or their proxies. Other stakeholders may be consulted, such as shipping companies and regulators.

4.4 The checklist includes references to relevant IMO documents. These may be used to correctly identify the considerations and the means by which they are addressed. The references may be included in the final output. Additional IMO references and other guidance such as those originating with the International Labour Organization and industry organizations may be added. References that are not relevant may be struck out.

4.5 Consideration of hazards should recognize that there may be alternative means by which risks may be addressed. These means may differ in their effectiveness as illustrated by the following well known Hierarchy of Hazard Controls (originated by the National Institute for Occupational Safety and Health, United States of America).

Hierarchy of controls

4.6 The hierarchy of controls is listed in order of effectiveness as follows:

Elimination – Physically removing the hazard is the most effective control. An example in the shipping industry might be that a requirement for working at height to maintain a piece of equipment could be eliminated by having all critical components at deck level.

Substitution – Involves replacing something that produces a hazard with something that does not produce a hazard. An example in the shipping industry might be the substitution of non-TBT anti-fouling.

Engineering controls – These do not remove hazards, but rather isolate people from hazards. Examples in the shipping industry might be equipment with inherently high noise levels isolated by locating in an acoustic enclosure or the rotating part of equipment fitted with a guard to prevent contact with the operator.

Administrative controls – These are changes in the way people work. Examples may be signage, procedures or training and are generally seen as less effective controls.

Personal protective equipment (PPE) – This control is seen as the least effective due to the problems with ensuring that PPE is properly used and maintained. In addition, some PPEs increase physiological effort to complete a task.

APPENDIX

Checklist for considering and addressing the human element

This checklist consists of five questions as follows:

.1 questions 1 to 4 are risk-based questions intended to identify risks from the implementation and operation of new outputs; and

.2 question 5 is a list of measures for addressing the human element.

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
Workload			*Other relevant references may be added* *Strike out references that are not relevant*	*If answer to question is "yes" identify considerations. If answer is "no" make proper justification*	*Identify how human element considerations should be addressed in the output*
1	**Does the "output" affect workload?**				
1.1	**On board, especially in the already intensive phases of the voyage and port operations to:**		*Revised guidelines for the operational implementation of the International Safety Management (ISM) Code by Companies* (MSC-MEPC.7/Circ.8) *Guidelines on fatigue* (MSC.1/Circ.1598) *Principles of minimum safe manning* (Resolution A.1047(27)) *Guidelines for the investigation of accidents where fatigue may have been an issue* (MSC/Circ.621)		
1.1.1	Operations including navigation, cargo and engineering				

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
1.1.2	Maintenance of the ships structure and its equipment				
1.1.3	Onboard administration in support of the ships' management systems				
1.1.4	Onboard administration related to regulation involving flag States, classification societies, port State and other bodies such as charterers and port authorities				
1.1.5	Increased workload or time pressure on personnel if involved in implementation of changes prior to the implementation date				
1.2	**Ashore, in a manner that would affect the ships operation to:**				
1.2.1	Companies' administration				
1.2.2	Flag State, port State and classification societies administration such that certification and other processes are compromised or delayed				

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
Decision-making			*Other relevant references may be added* *Strike out references that are not relevant*	*If answer to question is "yes" identify considerations. If answer is "no" make proper justification*	*Identify how human element considerations should be addressed in the output*
2	**Does the "output" impact decision-making on board the ship?**				
2.1	By confusion with existing requirements and regulations				
2.2	By changing responsibilities as laid out in the ISM Code				
2.3	By creating complexity in its implementation and/or in the safety management systems				
2.4	By requiring increased mental effort, such as the need to find, transform and analyse data or result in the need to make judgements based on incomplete information				
2.5	By limiting the time available to establish situational awareness, decide, communicate (possibly across time zones) or check				
2.6	By increasing reliance on judgement and administrative controls to manage major risks such as oil spills and collisions				

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
Living and Working Environment			*Other relevant references may be added* *Strike out references that are not relevant*	*If answer to question is "yes" identify considerations. If answer is "no" make proper justification*	*Identify how human element considerations should be addressed in the output*
3	**Does the "output" affect the living and working environment?**		*Guidelines on the basic elements of a shipboard occupational health and safety programme* (MSC-MEPC.2/Circ.3) *Guidelines on fatigue* (MSC.1/Circ.1598)		
3.1	By interfering with existing arrangements for abandonment, fire-fighting and other emergency plans or procedures				
3.2	By introducing new materials that could create an explosion, fire, environmental or occupational health risk				
3.3	By introducing new high energy sources such as high-voltage, high pressure fluids				
3.4	By affecting access or egress and causing lack of ventilation in working spaces				
3.5	By affecting the habitability of accommodation spaces due to noise, vibration, temperatures, dust and other contaminants				

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
Operation and Maintenance			*Other relevant references may be added* *Strike out references that are not relevant*	*If answer to question is "yes" identify considerations. If answer is "no" make proper justification*	*Identify how human element considerations should be addressed in the output*
4.	**Does the "output" affect the operation and maintenance of the ship, its structure or systems and equipment?**		*Revised guidelines for the operational implementation of the International Safety Management (ISM) Code by Companies* (MSC-MEPC.7/Circ.8) *Guidelines for bridge equipment and systems, their arrangement and integration (BES)* (SN.1/Circ.288) *Principles of minimum safe manning* (Resolution A.1047(27)) *Issues to be considered when introducing new technology on board ships* (MSC/Circ.1091) *Guideline on software quality assurance and human-centred design for e-navigation* (MSC.1/Circ.1512) *Guidelines for the standardization of user interface design for navigation equipment* (MSC.1/Circ.1609)		

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
4.1	By introducing equipment that the user may find difficult to operate or maintain or may be unreliable				
4.2	By introducing new and/or novel technology, or technology that changes the role of the person				
4.3	By introducing requirements for new competencies and roles				
4.4	By overloading existing infrastructure such as power generation and ventilation systems				
4.5	By poor integration with existing systems and controls				
4.6	By introducing new and unfamiliar operations/procedures				
4.7	By introducing new and unfamiliar operating interfaces?				
4.8	By introducing risks to the ship during any modifications required prior to the implementation date of the output				

	1 Question	2 Yes/ No	3 IMO References	4 Considerations	5 Instructions
Measures to address the human element			*Other relevant references may be added* *Strike out references that are not relevant*	*If answer to question is "yes" identify considerations. If answer is "no" make proper justification*	*Identify how human element considerations should be addressed in the output*
5.	**Does the "output" require changes to:**		*Shipboard technical operating and maintenance manuals* (MSC.1/Circ.1253) *Revised guidelines for the operational implementation of the International Safety Management (ISM) Code by Companies* (MSC-MEPC.7/Circ.8)		
5.1	Training				
5.2	Practical skill development and competences				
5.3	Operating, management and/or maintenance procedures				
5.4	Information/manuals for operation and maintenance				
5.5	Spares outfit				
5.6	Occupational safety requirements including guarding and PPE				
5.7	Shore support				

ANNEX 6

CHECKLIST FOR IDENTIFYING ADMINISTRATIVE REQUIREMENTS

This checklist should be used when preparing the analysis of implications required in submissions of proposals for inclusion of outputs. For the purpose of this analysis, the term "administrative requirement" is defined in accordance with resolution A.1043(27), as an obligation arising from a mandatory IMO instrument to provide or retain information or data.

Instructions:

(A) If the answer to any of the questions below is **YES**, the Member State proposing an output should provide supporting details on whether the requirements are likely to involve start-up and/or ongoing costs. The Member State should also give a brief description of the requirement and, if possible, provide recommendations for further work, e.g. would it be possible to combine the activity with an existing requirement?
(B) If the proposal for the output does not contain such an activity, answer **NR** (Not required).
(C) For any administrative requirement, full consideration should be given to electronic means of fulfilling the requirement in order to alleviate administrative burdens.

1. Notification and reporting? Reporting certain events before or after the event has taken place, e.g. notification of voyage, statistical reporting for IMO Members	NR	Yes □ Start-up □ Ongoing
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
2. Record-keeping? Keeping statutory documents up to date, e.g. records of accidents, records of cargo, records of inspections, records of education	NR	Yes □ Start-up □ Ongoing
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
3. Publication and documentation? Producing documents for third parties, e.g. warning signs, registration displays, publication of results of testing	NR	Yes □ Start-up □ Ongoing
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
4. Permits or applications? Applying for and maintaining permission to operate, e.g. certificates, classification society costs	NR	Yes □ Start-up □ Ongoing
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		
5. Other identified requirements?	NR	Yes □ Start-up □ Ongoing
Description of administrative requirement(s) and method of fulfilling it: (if the answer is yes)		

ANNEX 7

GUIDELINES FOR CONSIDERING AND REVIEWING THE OUTCOMES OF FSA STUDIES

Purpose

1 The purpose of these Guidelines is to assist the committees in considering and reviewing the outcomes (i.e. risk control options (RCOs) or other recommendations) of FSA studies. These Guidelines provide a bridge between the FSA Guidelines (MSC-MEPC.2/Circ.12/Rev.2) and the document on *Application of the Strategic Plan of the Organization* (resolution A.1111(30)).

Background

2 The Revised FSA Guidelines (MSC-MEPC.2/Circ.12/Rev.2) adequately cover the procedures to manage outcomes of an FSA study from initial submission to the committee through to the report of the FSA Experts Group to the committee.

3 The document on *Application of the Strategic Plan of the Organization* contains guidance on how the committees may consider placing new outputs on the biennial agenda of the different bodies.

Guidance for committees

4 Upon receipt of the outcomes of an FSA study the committees should conduct a preliminary assessment, and the committees may decide to:

.1 reject an outcome without any further action; or

.2 review the information submitted with an outcome in order to determine equivalence to the requirements for submitting proposals for outputs.

5 Based on paragraph 4.2 above, the committees may decide to:

.1 accept the information submitted with the outcome as equivalent to a proposal for an output, place the item on the biennial agenda or post-biennial agenda, and forward the outcome to the cognizant sub-committee or other bodies concerned for technical review and advice, and possible implementation; or

.2 request submission of a proposal for an output.

6 To enable the committees to carry out proper use of recommendations contained in FSA studies, the decision flow chart (see figure 1) should be used to guide consistent management of outcomes.

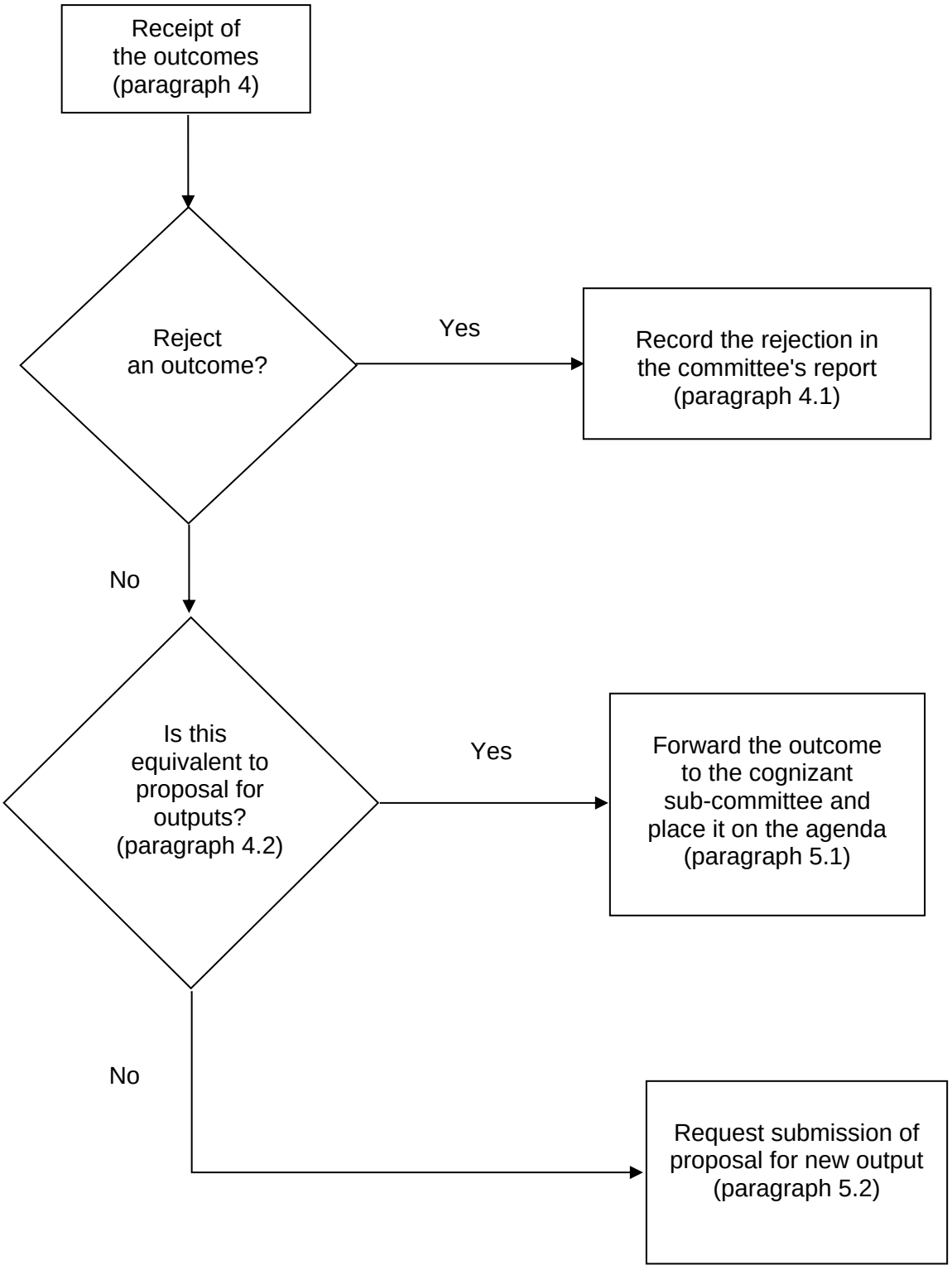

Figure 1 – Flow chart for committees' management of outcomes (i.e. RCOs or other recommendations from an FSA study)

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ANNEX 37

RESOLUTION CONCERNING THE ESTABLISHMENT OF A JOINT ILO/IMO TRIPARTITE WORKING GROUP TO IDENTIFY AND ADDRESS SEAFARERS' ISSUES AND THE HUMAN ELEMENT

The Special Tripartite Committee (STC) established by the Governing Body under Article XIII of the Maritime Labour Convention, 2006, as amended (MLC, 2006),

Having met remotely for the first part of its fourth meeting, from 19 to 23 April 2021,

Recalling article III of the Agreement between the International Labour Organization (ILO) and the International Maritime Organization (IMO) allowing for the establishment of joint groups to address any question of common interest which it may appear desirable to refer to such a group,

Recalling that the Sectoral Meeting on the Recruitment and Retention of Seafarers and the Promotion of Opportunities for Women Seafarers which met in Geneva from 25 February to 1 March 2019 recommended that (i) ILO strengthen its partnership with IMO on issues such as flag and port State control inspections and barriers to recruitment and retention of seafarers, and (ii) an ILO/IMO Tripartite Working Group be established to identify and address seafarers' issues and the human element, in particular as regards matters covered both under the MLC, 2006 and the International Convention on the Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW),

Having considered the submission by the Secretariat of the International Maritime Organization, concerning the outcome of the IMO Legal Committee at its 107th session and the IMO Maritime Safety Committee at its 103rd session, as the parent body of the Sub-committee on the Human Element, Training and Watchkeeping at its seventh session calling for the establishment of an ILO/IMO Tripartite Working Group to Identify and Address Seafarers' Issues and the Human Element, which should:

(i) consider concrete proposals on fair treatment of seafarers detained on suspicion of committing maritime crimes, and advise ILO and IMO accordingly;

(ii) develop practical guidelines for port State and flag State authorities on how to deal with seafarer abandonment cases, for approval/adoption by ILO and IMO; and

(iii) consider any other relevant matters under the purview of ILO and IMO, including, but not limited to, decent employment and greater employment opportunities in the maritime sector; issues concerning flag and port State control inspections and barriers to recruitment and retention of seafarers; safe manning; drills; fatigue; operational and procedural safety, security and environmental protection; occupational safety and health; and welfare and well-being of seafarers, as may be instructed, and advise ILO and IMO accordingly,

Recommends that the Governing Body approve, at its 343rd session (November 2021), the establishment of a Joint ILO/IMO Tripartite Working Group to Identify and Address Seafarers' Issues and the Human Element, in accordance with the Terms of Reference set out in the appendix.

APPENDIX

Terms of Reference

Background

1 The establishment of a Joint ILO/IMO Tripartite Working Group to Identify and Address Seafarers' Issues and the Human Element (JTWG) was prompted by a request from the IMO Legal and Maritime Safety Committees made in December 2020 and May 2021, respectively.

Objective

2 ILO and IMO, hereinafter referred to as the Parties, shall collaborate in order to examine and develop recommendations or guidance, as appropriate, on matters relating to seafarers' issues and the human element, as specified in the present Terms of Reference or as may be jointly mandated by the ILO Governing Body and the relevant IMO bodies (i.e. the Council, the Maritime Safety Committee and the Legal Committee, as appropriate).

3 The JTWG shall operate within the fixed timelines, only for the purposes mandated, and its functions and responsibilities shall be kept at all times distinguished from those of the Special Tripartite Committee (STC) established under article XIII of the Maritime Labour Convention, 2006, as amended (MLC, 2006).

Mandate – Duration

4 In order to meet its objective, the JTWG shall hold in-depth technical discussions and develop recommendations and/or draft provisions concerning the following:

(a) Guidelines for port State and flag State authorities on how to deal with seafarer abandonment cases as soon as possible but not later than the end of 2023.

(b) Proposals on the fair treatment of seafarers detained on suspicion of committing maritime crimes, by the end of 2024.

(c) Topics, as may be jointly mandated by the ILO Governing Body and the IMO Council and within the time frame jointly agreed upon.

5 Unless the duration of the JTWG is extended by express decision of the ILO Governing Body and the IMO Council, the JTWG shall complete its work by the end of 2024.

Composition

6 The JTWG shall be composed of 24 members. The IMO shall appoint eight (8) government representatives giving due consideration to geographical representation. The ILO shall appoint eight (8) shipowners' representatives and eight (8) seafarers' representatives among the shipowners' and seafarers' members of the STC, following their nomination by their respective groups.

7 The members of the JTWG may vary for each of the matters specified in paragraph 4 above.

8 The members of the JTWG may be accompanied by a maximum of two experts or advisers each.

Officers

9 The JTWG shall elect a Chairperson among the government representatives and three Vice-Chairpersons, one from each of the three groups.

10 The Chairperson shall be responsible for declaring the opening and closing of each meeting, directing the discussions, according the right to speak, determining consensus, putting questions to vote, and ruling on points of order.

11 The Vice-Chairpersons shall preside alternately over the meetings or parts of the meetings at which the Chairperson cannot be present.

Observers

12 The meetings of the JTWG shall be open to observers. All Members States of the Parties, other than those appointed as members of the JTWG, may attend as observers and participate in the debates without decision-making power.

13 Representatives of official international organizations, non-governmental international organizations or other entities with which ILO or IMO has established consultative relationships, with which standing agreements for such representation have been made, or which have been specially invited by the Parties' competent bodies, may also attend as observers. Representatives of official international organizations may participate in the debates without decision-making power.

14 Observers shall register at least 30 days in advance of a meeting.

15 The Chairperson may, in agreement with the Vice-Chairpersons, permit the representatives of NGOs to make or circulate statements for the information of the meeting on matters included in its agenda.

16 The Chairperson, with the approval of the Vice-Chairpersons, may invite a limited number of technical experts on the topic(s) under consideration to participate in meetings of the JTWG.

Secretariat

17 ILO and IMO shall establish a joint Secretariat.

18 The Secretariat shall be responsible for preparing draft agendas, circulating working documents, drafting reports of meetings, and providing any other services to facilitate the JTWG in the discharge of its functions.

Meetings

19 The JTWG shall, in principle, hold at least one three-day meeting per year. Additional meetings may be convened if authorized by, and in coordination with, the relevant bodies of the Parties, and subject to availability of funding. Both ILO and IMO shall communicate the invitation to a meeting at least two months in advance.

20 In general, JTWG meetings shall take place alternately at the IMO and ILO headquarters. The agenda, time and place shall be published sufficiently in advance. The Parties may decide to hold meetings virtually.

21 The preparatory work for the meetings shall be carried out by correspondence and/or virtually.

22 The programme of work of the JTWG and the scheduling of meetings shall be arranged by the Parties in consultation with the STC Officers having especially regard to scheduled STC meetings.

Documents

23 Working documents shall be prepared by the Secretariat and shall be made available at least 15 days before a scheduled meeting.

Rules of procedure

24 The JTWG may adopt its own rules of procedure which shall be consistent with the Terms of Reference.

Language

25 The meetings of the JTWG shall be conducted in English and all documents related to its work, other than the final outcome document(s), shall be prepared in that language. Translation/interpretation services to and from other languages may be provided subject to available funding.

Expenses

26 Expenses related to meetings shall be covered by the host.

Decision-making

27 Decisions shall normally be made by consensus. In the absence of consensus duly ascertained and announced by the Chairperson, decisions shall be taken by a simple majority of the votes cast by the JTWG members who are present at the sitting.

Reports

28 At the end of each meeting, the Secretariat shall prepare a brief report. The report shall be finalized within 30 days after a meeting.

Follow-up

29 The Parties shall submit any outcomes of the JTWG to their respective relevant bodies for consideration and possible follow-up action, as appropriate.

Amendment

30 The Terms of Reference may be amended by common consent of the Parties.

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ANNEX 38

BIENNIAL STATUS REPORT[1] OF THE MARITIME SAFETY COMMITTEE

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
1. Improve implementation	1.2	Input on identifying emerging needs of developing countries, in particular SIDS and LDCs to be included in the ITCP	Continuous	TCC	MSC / MEPC / FAL / LEG		No work requested		
1. Improve implementation	1.3 (New)	Revision of the criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS) (resolution A.1001(25))	2023	MSC	NCSR		In progress		MSC 101/24, para. 21.33
1. Improve implementation	1.4	Analysis of consolidated audit summary reports	Annual	Assembly	MSC / MEPC / LEG / TCC / III	Council	Ongoing		MEPC 61/24, para. 11.14.1; MSC 88/26, para. 10.8; C 120/D, paras. 7.1 and 7.2; MSC 105/20, para. 13.10
1. Improve implementation	1.5	Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)	Annual	MSC / MEPC	III		Ongoing		MEPC 64/23, para. 11.49; MSC 91/22, para. 10.30; MEPC 52/24, para. 10.15. MEPC 72/17, para. 2.7.5; MEPC 74/18, para.11.3; MSC 104/18, para.13.7.3
1. Improve implementation	1.7	Identify thematic priorities within the area of maritime safety and security, marine environmental protection, facilitation of maritime traffic and maritime legislation	Annual	TCC	MSC / MEPC / FAL / LEG		No work requested		

[1] For details, refer to Organizational Planning module of GISIS.

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
1. Improve implementation	1.11	Measures to harmonize port State control (PSC) activities and procedures worldwide	Continuous	MSC / MEPC	HTW / PPR / NCSR	III	Ongoing		MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104/18 para.13.7.1
1. Improve implementation	1.12 (New)	Revision of the 1979, 1989 and 2009 MODU Codes and associated MSC circulars to prohibit the use of materials containing asbestos, including control of storage of such materials on board	2023	MSC	SDC		In progress		MSC 105/20, para. 18.54
1. Improve implementation	1.13	Review of mandatory requirements in the SOLAS, MARPOL and Load Line Conventions and the IBC and IGC Codes regarding watertight doors on cargo ships	2022	MSC / MEPC			Completed		MSC 104/18, paras. 3.19 to 3.21
1. Improve implementation	1.14 (New)	Development of guidance in relation to Mandatory IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States	2023	MSC / MEPC	III		In progress		MSC 103/21, para.18.38, MSC 105/20, para. 18.52
1. Improve implementation	1.17 (New)	Review of IGC Code	2023	MSC	CCC		In progress		MSC 103/21, para. 18.2; MSC 104/18, para. 15.16, MSC 105/20, para. 18.50
1. Improve implementation	1.18 (New)	Development of guidance on assessment and applications of remote surveys, ISM Code audits and ISPS Code verifications	2024	MSC / MEPC	III		In progress		MSC 104/18, para.15.5, MSC 105/20, para. 18.52
1. Improve implementation	1.20	Revision of the Guidelines on places of refuge for ships in need of assistance (resolution A.949(23))	2022	MSC	NCSR		In progress		MSC 100/20, para. 17.1; MSC 104/18, para. 15.19

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
Notes:	MSC 104 extended the target completion year to 2022.								
1. Improve implementation	1.29	Development of further measures to enhance the safety of ships relating to the use of fuel oil	2023	MSC			In progress		MSC 100/20, paras. 8.13 and 8.14; MSC 103/21, para. 6.26, MSC 105/20, section 10
1. Improve implementation	1.32	Implementation of the STCW Convention	Continuous	MSC	HTW		Ongoing		MSC 101/24, para. 15.7; MSC 102/24, para. 13.14
1. Improve implementation	1.34	Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures	Continuous	MSC	NCSR		Ongoing		
2. Integrate new and advancing technologies in the regulatory framework	2.1	Response to matters related to the ITU-R Study Groups and ITU World Radiocommunication Conference	Continuous	MSC	NCSR		Ongoing		
2. Integrate new and advancing technologies in the regulatory framework	2.3	Amendments to the IGF Code and development of guidelines for low-flashpoint fuels	Continuous	MSC	HTW / PPR / SDC / SSE	CCC	Ongoing		MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; MSC 102/24, para. 21.4
2. Integrate new and advancing technologies in the regulatory framework	2.4	Further development of the IP Code and associated guidance	2022	MSC	SDC		Ongoing		MSC 95/22, para. 19.25; MSC 96/25, paras. 7.10 and 7.12; MSC 97/22, paras. 6.22 and 6.23; MSC 99/22, paras. 10.17 and 10.18; MSC 101/24, paras. 12.17 to 12.19; MSC 102/24, paras. 17.13 to 17.20; MSC 103/21, paras. 15.5 and 15.6; MSC 104/18, para. 11.5, MSC 105/20, section 15

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
2. Integrate new and advancing technologies in the regulatory framework	2.5	Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1	2024	MSC	SSE	SDC	In progress		MSC 82/24, para. 3.92; MSC 98/23, annex 38; MSC 102/24, para. 19.16. MSC 105/20, para. 18.54
Notes:	MSC 105 approved the recommendation of SDC 8 to retitle the output and the extension of the TCY to 2024.								
2. Integrate new and advancing technologies in the regulatory framework	2.6	Development of Explanatory Notes to the Interim guidelines on second generation intact stability criteria	2022	MSC	SDC		Completed		MSC 85/26, paras. 12.7 and 23.42; MSC 102/24, para. 21.20 and annex 26; MSC 105/20, section 15, MSC.1/Circ.1652
2. Integrate new and advancing technologies in the regulatory framework	2.8	Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2	2023	MSC	III / HTW / SDC	SSE	Extended		MSC 98/23, para. 20.36; HTW 8/16, section 15; SSE 8/20, section 18
2. Integrate new and advancing technologies in the regulatory framework	2.9 (New)	Development of amendments to VDR performance standards and carriage requirements	2023	MSC	NCSR		In progress		MSC 101/24, paras. 21.39 to 21.44
2. Integrate new and advancing technologies in the regulatory framework	2.10	Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS	2022	MSC	HTW / SSE	NCSR	In progress		MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105), MSC.497(105) to MSC.499(105), MSC.502(105) to MSC.517(105);

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
									MSC.1/Circ.803/Rev.1 MSC.1/Circ.1645
2. Integrate new and advancing technologies in the regulatory framework	2.11	Consideration of descriptions of Maritime Services in the context of e-navigation	2022	MSC	FAL / NCSR		In progress		FAL 43/20, para. 7.21; MSC 101/24, paras. 11.10 and 11.11; resolution MSC.467(101); MSC.1/Circ.1610
2. Integrate new and advancing technologies in the regulatory framework	2.12	Development of generic performance standards for shipborne satellite navigation system receiver equipment	2022	MSC	NCSR		In progress		MSC 104/18, para. 15.19.
2. Integrate new and advancing technologies in the regulatory framework	2.14 (New)	Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers	2022	MSC	NCSR		In progress		MSC 101/24, paras. 21.20 and 21.21; MSC 104/18, para. 15.19; MSC 105/20, paras. 13.7 and 13.8
2. Integrate new and advancing technologies in the regulatory framework	2.16	Revision of SOLAS chapter III and the International Life-Saving Appliance (LSA) Code	2024	MSC	SSE		Ongoing		SSE 8/20, section 5
Notes:	To remove gaps, inconsistencies and ambiguities based on the safety objectives, functional requirements and expected performance for SOLAS chapter III								
2. Integrate new and advancing technologies in the regulatory framework	2.17	Consideration of development of goal-based ship construction standards for all ship types	2023	MSC / MEPC			In progress		

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
2. Integrate new and advancing technologies in the regulatory framework	2.20 (New)	Development of amendments to SOLAS regulation II-1/3-4 to apply requirements for emergency towing equipment for tankers to other types of ships	2023	MSC	SDC		In progress		
2. Integrate new and advancing technologies in the regulatory framework	2.21	Review of Formal Safety Assessment (FSA) studies by the FSA Experts' Group	Continuous	MSC			In progress		MSC 105/20, para. 11.1
2. Integrate new and advancing technologies in the regulatory framework	2.22	Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service	2023	MSC	CCC		In progress		MSC 96/25 para. 23.4; MSC 98/23, annex 38; MSC 100/20 para. 17.21; MSC 102/24, para. 21.6; MSC 104/18, para. 15.16; MSC 105/20, para. 14.3
Notes:	MSC 104 extended the target completion year to 2023 in order to complete the remaining work.								
2. Integrate new and advancing technologies in the regulatory framework	2.23 (New)	Development of a goal-based instrument for maritime autonomous surface ships (MASS)	2025	MSC			In progress		MSC 104/18, para.15.9.2; MSC 105/20, section 7
2. Integrate new and advancing technologies in the regulatory framework	2.24 (New)	Development of guidelines for the safety of ships using ammonia as fuel	2023	MSC	CCC		In progress		MSC 105/20, para. 18.26
2. Integrate new and advancing	2.25 (New)	Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk	2024	MSC	CCC		In progress		MSC 105/20, para. 18.28

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
technologies in the regulatory framework									
4. Engage in ocean governance	4.2	Input to the ITCP on emerging issues relating to sustainable development and achievement of the SDGs	Continuous	TCC	MSC / MEPC / FAL / LEG		No work requested		MEPC 72/17, section 12; MEPC 73/19, section 13; MEPC 74/18, section 12
4. Engage in ocean governance	4.4 (New)	Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers	2023	MSC	NCSR	CCC	In progress		MSC 103/21, para. 18.34
5. Enhance global facilitation and security of international trade	5.2	Guidelines and guidance on the implementation and interpretation of SOLAS chapter XI-2 and the ISPS Code	Annual	MSC			Ongoing		
5. Enhance global facilitation and security of international trade	5.3	Consideration and analysis of reports on piracy and armed robbery against ships	Annual	MSC			Postponed		MSC 105/20, para. 9.1
5. Enhance global facilitation and security of international trade	5.4	Revised guidance relating to the prevention of piracy and armed robbery to reflect emerging trends and behaviour patterns	Annual	MSC	LEG		Postponed		MSC 105/20, para. 9.1
5. Enhance global facilitation and	5.13	IMO's contribution to addressing unsafe mixed migration by sea	2022	FAL / LEG / MSC			Postponed		FAL 41/17, para. 7.15; MSC 98/23, para. 16.14; FAL 43, para. 10.7;

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
security of international trade									MSC 101/24, para. 19.8; MSC 104/18, para. 9.5; MSC 105/20, section 10
Notes:	Due to time constraints, MSC 105 postponed consideration of this agenda item to MSC 106.								
6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	Ongoing		MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21;
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	Ongoing		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16
6. Address the human element	6.3	Reports on unlawful practices associated with certificates of competency	Annual	MSC	HTW		Postponed		MSC 83/28, para. 12.2
6. Address the human element	6.5	Development of measures to facilitate mandatory seagoing service required under the STCW Convention	2023	MSC	III	HTW	In progress		MSC 101/24, paras. 21.29 and 21.30
6. Address the human element	6.6	Development of measures to ensure quality of onboard training as part of the mandatory seagoing service required by the STCW Convention	2023	MSC	HTW		In progress		MSC 101/24, para. 21.1
6. Address the human element	6.10	Development of an entrant training manual for PSC personnel	2023	MSC / MEPC	III		In progress		MSC 103/21, para.18.36
6. Address the human element	6.12	Comprehensive review of the 1995 STCW-F Convention	2022	MSC	HTW		In progress		MSC 95/22, paras. 19.3 and 19.4; MSC 96/25, para. 12.3; MSC 105/20, para. 18.51
Notes:	Target completion year extended to 2023								

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
6. Address the human element	6.13	Development of amendments to the Revised guidelines for the development, review and validation of model courses (MSC-MEPC.2/Circ.15/Rev.1)	2022	MSC	HTW		Ongoing		MSC 100/20, paras. 17.7 and 17.8; HTW 8/16, para. 7.6
6. Address the human element	6.14	Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers	2022	MSC	III	HTW	In progress		MSC 100/20, para. 17.12; HTW 8/16, section 9
6. Address the human element	6.15	Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))	2022	MSC	CCC		In progress		MSC 101/24, para. 21.48; MSC 104/18, para. 15.16 (ref CCC 7/WP.2).
6. Address the human element	6.17 (New)	Comprehensive review and revision of the 1978 STCW Convention and Code	2026	MSC	HTW		In progress		MSC 105/20, para. 18.13
Notes:	MSC 105 instructed the HTW Sub-Committee to develop and finalize, as a matter of priority, STCW training provisions addressing bullying and harassment in the maritime sector, including sexual assault and sexual harassment, as part of this output.								
7. Ensure regulatory effectiveness	7.1	Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions	Continuous	MSC / MEPC / FAL / LEG	III / PPR / CCC / SDC / SSE / NCSR		Ongoing		MSC 76/23, para. 20.3; MSC 78/26, para. 22.12
Notes:	A 28 expanded the output to include all proposed unified interpretations to provisions of IMO safety, security, and environment-related Conventions.								
7. Ensure regulatory effectiveness	7.2	Developments in GMDSS services, including guidelines on maritime safety information (MSI)	Continuous	MSC	NCSR		Ongoing		MSC 104/18, para. 15.19
7. Ensure regulatory effectiveness	7.4	Lessons learned and safety issues identified from the analysis of marine safety investigation reports	Annual	MSC / MEPC	III		Ongoing		MSC 92/26, para. 22.29; III 7/17, section 4

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
7. Ensure regulatory effectiveness	7.5	Identified issues relating to the implementation of IMO instruments from the analysis of PSC data	Annual	MSC / MEPC	III		Ongoing		MSC 96/25, para. 23.13; MEPC 69/21, para. 19.11; III 7/17, section 6
7. Ensure regulatory effectiveness	7.6	Consideration and analysis of reports and information on persons rescued at sea and stowaways	Annual	MSC / FAL			Postponed		
7. Ensure regulatory effectiveness	7.10	Amendments to the IMDG Code and supplements	Continuous	MSC	CCC		Ongoing		MSC 105/20, paras. 3.59 and 14.4
7. Ensure regulatory effectiveness	7.13	Amendments to the IMSBC Code and supplements	Continuous	MSC	CCC		Ongoing		MSC 105/20, paras. 14.4 and 3.57
7. Ensure regulatory effectiveness	7.14 (New)	Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) and amendments to ECDIS performance standards (resolution MSC.232(82))	2023	MSC	III	NCSR	In progress		MSC 100/20, para. 17.9; MSC 102/24, para. 21.14; MSC 104/18, para. 15.19
7. Ensure regulatory effectiveness	7.15 (New)	Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of container ships	2025	MSC	CCC	SSE	Ongoing		MSC 103/21, para. 18.8; SSE 8/20, section 10
7. Ensure regulatory effectiveness	7.19	Revision of the Code of safety for diving systems (resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (resolution A.692(17))	2024	MSC	SSE		Extended		MSC 99/22, para. 20.26; SSE 8/20, section 14
Notes:	MSC 106 is requested to extend the target completion year to 2024.								

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
7. Ensure regulatory effectiveness	7.20	Amendments to the IAMSAR Manual	Continuous	MSC	NCSR		Ongoing		
7. Ensure regulatory effectiveness	7.21	Amendments to the 2011 ESP Code	Continuous	MSC	SDC		Ongoing		MSC 92/26, para. 13.31
Notes:	Regular updates to the 2011 ESP Code agreed by MSC 92 (MSC 92/26, paragraph 13.31)								
7. Ensure regulatory effectiveness	7.22	Routeing measures and mandatory ship reporting systems	Continuous	MSC	NCSR		Ongoing		
7. Ensure regulatory effectiveness	7.23	Updates to the LRIT system	Continuous	MSC	NCSR		Ongoing		
7. Ensure regulatory effectiveness	7.24	Verified goal-based new ship construction standards for tankers and bulk carriers	Continuous	MSC			Postponed		
7. Ensure regulatory effectiveness	7.25	Amendments to the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23(59)) to introduce a new class of loading conditions for special compartments	2022	MSC	CCC		Postponed		MSC 104/18, para. 15.16; CCC 7/15, para. 7.1
Notes:	MSC 105 noted that CCC 7 deferred the consideration to CCC 8								
7. Ensure regulatory effectiveness	7.26	Reports to the MSC on information communicated by STCW Parties	Annual	MSC			In progress		
7. Ensure regulatory effectiveness	7.27	Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC)	Annual	MSC / MEPC	III		Ongoing		MEPC 68/21, paras. 14.5 and 14.6; MSC 79/23, paras. 9.19 and 9.20; MEPC 72/17, paras. 7.4 and 4.24 to 4.33; MSC 104/18, para.13.7.2

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
7. Ensure regulatory effectiveness	7.28	Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas	Annual	MSC / MEPC	III	CCC	Completed		CCC 7/15, section 9
~~7. Ensure regulatory effectiveness~~	~~7.29~~	~~Mandatory application of the Performance standard for protective coatings for void spaces on bulk carriers and oil tankers~~	~~2022~~	~~MSC~~	~~SDC~~		Deleted		MSC 76/23, paras. 20.41.2 and 20.48; DE 50/27, section 4; MSC 105/20, para. 18.54
Notes:	MSC 105 agreed to delete this output, at the recommendation of SDC 8, after a long time on the post-biennial agenda and no documents received for two consecutive sessions of SDC (SDC 7 and SDC 8).								
~~7. Ensure regulatory effectiveness~~	~~7.30~~	~~Performance standard for protective coatings for void spaces on all types of ships~~	~~2022~~	~~MSC~~	~~SDC~~		Deleted		MSC 76/23, paras. 20.41.2 and 20.48; MSC 105/20, para. 18.54
Notes:	MSC 105 agreed to delete this output, at the recommendation of SDC 8, after a long time on the post-biennial agenda and no documents received for two consecutive sessions of SDC (SDC 7 and SDC 8).								
7. Ensure regulatory effectiveness	7.31	Finalization of a non-mandatory instrument on regulations for non-convention ships	2022	MSC	III		Postponed		MSC 96/25, para. 9.4; MSC 101/24, para. 21.38; MSC 104/18, section 5; MSC 105/20, section 4
7. Ensure regulatory effectiveness	7.32	Requirements for onboard lifting appliances and anchor handling winches	2022	MSC	HTW	SSE	Completed		MSC 89/25, para. 22.26; MSC 98/23, annex 38; SSE 8/20, section 9
Notes:	SSE 8 completed the work and reported the outcome to MSC 106 and MSC 107, as appropriate.								
7. Ensure regulatory effectiveness	7.33	Review of 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	2023	MSC	HTW / SDC	SSE	Extended		MSC 97/22, para. 19.19; MSC 98/23, para. 12.42; SSE 8/20, section 6

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
Notes:	MSC 106 expected to consider extending target completion year to 2023								
7. Ensure regulatory effectiveness	7.34	Amendments to Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ship carrying liquefied gases in bulk (MSC.1/Circ.1315)	2022	MSC	SSE		Completed		MSC 98/23, para. 20.37; SSE 8/20, section 7
Notes:	SSE 8 completed the work and reported the outcome to MSC 106.								
7. Ensure regulatory effectiveness	7.35	Safety measures for non-SOLAS ships operating in polar waters	2023	MSC	NCSR	SDC	Extended		MSC 98/23, paras. 10.29, 20.31.1 and 20.31.2, and annex 38; MSC 99/22, paras. 7.16 and 20.13.1; MSC 101/24, paras. 7.6 and 7.9; MSC 102/24, paras. 17.5 to 17.8; MSC 103/21, paras. 15.1 to 15.4; MSC 105/20, para. 18.54
Notes:	TCY extended to 2023 at the request of SDC 8.								
7. Ensure regulatory effectiveness	7.36	New requirements for ventilation of survival craft	2023	MSC	SSE		Extended		MSC 97/22, para. 19.22; SSE 8/20, section 3
Notes:	SSE 8 requested MSC 106 to extend TCY to 2023								
7. Ensure regulatory effectiveness	7.37	Consequential work related to the new International Code for Ships Operating in Polar Waters	2022	MSC	SSE / NCSR	SDC	Ongoing		MSC 93/22, paras. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18 and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4
Notes:	SSE 8 completed the work and reported the outcome to MSC 106.								

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
7. Ensure regulatory effectiveness	7.38	Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))	2022	MSC	SSE	SDC	Extended		MSC 102/24, para. 17.23
Notes:	MSC 105 adopted resolution MSC.188(79)/Rev.1 on Revised performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12 but requested SDC 9 in 2023 to consider document MSC 105/15/1 (IACS), thus TCY extended to 2023.								
7. Ensure regulatory effectiveness	7.39	Development of amendments to the LSA Code and resolution MSC.81(70) to address the in-water performance of SOLAS lifejackets	2023	MSC	SSE		In progress		MSC 101/24, para. 21.6; MSC 102/24, para. 21.19; SSE 8/20, section 8
7. Ensure regulatory effectiveness	7.40	Development of amendments to SOLAS chapter II-2 and MSC.1/Circ.1456 addressing fire protection of control stations on cargo ships	2023	MSC	SSE		In progress		MSC 101/24, para. 21.3; MSC 102/24, para. 21.19; SSE 8/20, section 11
7. Ensure regulatory effectiveness	7.41	Development of provisions to prohibit the use of fire-fighting foams containing perfluorooctane sulfonic acid (PFOS) for fire-fighting on board ships	2022	MSC	SSE		Completed		MSC 101/24, para. 21.27; MSC 102/24, paras. 19.31 and 21.19; SSE 8/20, section 12
Notes:	SSE 8 completed the work and reported the outcome to MSC 106.								
7. Ensure regulatory effectiveness	7.42 (New)	Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars	2024	MSC	HTW / SSE	SDC	In progress		MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54
Notes:	MSC 105 agreed with SDC 8's recommendation for this output to be transferred to the current 2022-2023 agenda of the SDC sub-committees								

Reference to SD, if applicable	Output number	Description	Target completion year	Parent organ(s)	Associated organ(s)	Coordinating organ	Status of output for Year 1	Status of output for Year 2	References
8. Ensure organizational effectiveness	8.1	Endorsed proposals for the development, maintenance and enhancement of information systems and related guidance (GISIS, websites, etc.)	Continuous	Council	MSC / MEPC / FAL / LEG / TCC		Ongoing		
8. Ensure organizational effectiveness	8.9	Revised documents on organization and method of work, as appropriate	2023	Council	MSC / MEPC /FAL / LEG / TCC		In progress		MSC-MEPC.1/Circ.5/Rev.3, subject to MEPC's concurrent approval
OW. Other work	OW 3	Endorsed proposals for new outputs for the 2022-2023 biennium as accepted by the Committees	Annual	Council	MSC / MEPC / FAL / LEG / TCC		Ongoing		MSC 105/20, section 18
OW. Other work	OW 8	Cooperate with the United Nations on matters of mutual interest, as well as provide relevant input/guidance	2023	Assembly	MSC / MEPC / FAL / LEG / TCC	Council	In progress		C 120/D, paras. 17(a).1-17(a).5
OW. Other work	OW 9	Cooperate with other international bodies on matters of mutual interest, as well as provide relevant input/guidance	2023	Assembly	MSC / MEPC / FAL / LEG / TCC	Council	In progress		C 120/D, paras.17(a).1-17(a).5
OW. Other work	OW 12 (New)	Guidance on the training on and operation of Emergency Personal Radio Devices in multiple casualty situations	2022	MSC	NCSR		Ongoing		MSC 100/20, para. 17.5

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ANNEX 39

POST-BIENNIAL AGENDA* OF THE MARITIME SAFETY COMMITTEE

Maritime Safety Committee (MSC)								
Number	Biennium (when the output was placed on the post-biennial agenda)	Reference to Strategic Direction, if applicable	Description	Parent organ(s)	Associated organs(s)	Coordinating organ(s)	Timescale (sessions)	References
185	2022-2023	1	Development of amendments to chapter 6 of the 2009 MODU Code regarding electrical equipment capable of operation after shutdown	MSC	SSE		1	MSC 105/20, para. 18.3
145	2016-2017	2	Amendments to the IMDG Code related to portable tanks with shells made of fibre-reinforced plastics (FRP) for multimodal transportation of dangerous goods	MSC	CCC		2	MSC 98/23, para. 20.11
152	2016-2017	2	Guidelines for use of fibre-reinforced plastics (FRP) within ship structures	MSC	SDC		2	MSC 98/23, para.10.22
180	2020-2021	2	Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF Data Exchange System (VDES)	MSC	NCSR		2	MSC 103/21, para. 18.12
181	2020-2021	2	Development of performance standards for a digital navigational data system (NAVDAT)	MSC	NCSR		2	MSC 103/21, para. 18.18

* For details, refer to Organizational Planning module of GISIS.

Maritime Safety Committee (MSC)								
Number	Biennium (when the output was placed on the post-biennial agenda)	Reference to Strategic Direction, if applicable	Description	Parent organ(s)	Associated organs(s)	Coordinating organ(s)	Timescale (sessions)	References
190	2022-2023	2	Revision of SOLAS chapters II-1 (part C) and V, and related instruments regarding steering and propulsion requirements, to address both traditional and non-traditional propulsion and steering systems	MSC	SDC / NCSR	SSE	2	MSC 105/20, paras. 18.23 and .24
158	2018-2019	6	Amendments to SOLAS chapter III and chapter IV of the LSA Code to require the carriage of self-righting or canopied reversible liferafts for new ships	MSC	SSE		2	MSC 99/22, paras. 20.22 and 20.23
169	2018-2019	6	Development of design and prototype test requirements for the arrangements used in the operational testing of free fall lifeboat release systems without launching the lifeboat	MSC		SSE	2	MSC 101/24, para. 21.15
183	2020-2021	6	Revision of the 2010 FTP Code to allow for new fire protection systems and materials	MSC	SSE		3	MSC 103/21, para. 18.28
191	2022-2023	6	Scoping exercise and enhancement of the effectiveness of provisions on fatigue and seafarers' hours of work and rest	MSC	III	HTW	2	MSC 105/20, para. 18.31
186	2022-2023	7	Development of amendments to chapter 15 of the FSS Code on enclosed spaces containing a nitrogen receiver or a buffer tank of nitrogen generator systems	MSC	SSE		2	MSC 105/20, paras. 18.5 and 18.6

Maritime Safety Committee (MSC)								
Number	Biennium (when the output was placed on the post-biennial agenda)	Reference to Strategic Direction, if applicable	Description	Parent organ(s)	Associated organs(s)	Coordinating organ(s)	Timescale (sessions)	References
187	2022-2023	7	Review and update SOLAS regulation II-2/9 on containment of fire to incorporate existing guidance and clarify requirements	MSC	SSE		2	MSC 105/20, paras. 18.8 and 18.9;
188	2022-2023	7	Development of guidelines for the use of electronic nautical publications (ENP)	MSC	NCSR		2	MSC 105/20, para. 18.11
189	2022-2023	7	Amendment to the revised ECDIS Performance Standards (resolution MSC.232(82)) to facilitate a standardized digital exchange of ships' route plans	MSC	NCSR		1	MSC 105/20, paras. 18.20 and 18.21 (NCSR to consider scope of output and report back to MSC; but not to discuss contents of output until scope has been agreed by MSC)
192	2022-2023	7	Revision of the Guidelines for the application of plastic pipes on ships (resolution A.753(18))	MSC	SSE		1	MSC 105/20, para. 18.40
193	2022-2023	7	Evaluation of adequacy of fire protection, detection and extinction arrangements in vehicle, special category and ro-ro spaces in order to reduce the fire risk of ships carrying new energy vehicles	MSC	SSE		4	MSC 105/20, paras. 18.43 and .44
168	2018-2019	OW	Development of amendments to paragraph 8.3.5 and annex 1 of the 1994 and 2000 HSC Codes	MSC		SSE	1	MSC 101/24, para. 21.9
42	2012-2013	OW	Review of the 2009 Code on Alerts and Indicators	MSC	NCSR	SSE	2	MSC 89/25, para. 22.25

Maritime Safety Committee (MSC)								
Number	Biennium (when the output was placed on the post-biennial agenda)	Reference to Strategic Direction, if applicable	Description	Parent organ(s)	Associated organs(s)	Coordinating organ(s)	Timescale (sessions)	References
65	2018-2019	OW	Application of amendments to SOLAS and related codes and guidelines	MSC				MSC 91/22, paras. 3.16 to 3.35

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ANNEX 40

BIENNIAL STATUS REPORTS* OF THE SUB-COMMITTEES

2022-2023 BIENNIUM

SUB-COMMITTEE ON CARRIAGE OF CARGOES AND CONTAINERS (CCC)									
Reference to SD, if applicable	**Output number**	**Description**	**Target completion year**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1**	**Year 2**	**References**
1. Improve implementation	1.17 (New)	Review of IGC Code	2023	MSC	CCC		In progress		MSC 103/21, para. 18.2; MSC 104/18, para. 15.16, MSC 105/20, para. 18.50
2. Integrate new and advancing technologies in the regulatory framework	2.3	Amendments to the IGF Code and development of guidelines for low-flashpoint fuels	Continuous	MSC	HTW / PPR / SDC / SSE	CCC	Ongoing		MSC 94/21, para. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4 CCC 7/15, section 3; MSC 105/20, para. 14.2
2. Integrate new and advancing technologies in the regulatory framework	2.22	Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service	2023	MSC	CCC		Extended		MSC 96/25 para. 23.4; MSC 98/23, annex 38; MSC 100/20 para. 17.21; MSC 102/24, para. 21.6; MSC 104/18, para. 15.16; MSC 105/20, para. 14.3 CCC 7/WP.2
Notes:	MSC 104 extended the target completion year to 2023 in order to complete the remaining work.								
2. Integrate new and advancing technologies in	2.24 (New)	Development of guidelines for the safety of ships using ammonia as fuel	2023	MSC	CCC		In progress		MSC 105/20, para. 18.26

* For details, refer to Organizational Planning module of GISIS.

the regulatory framework									
2. Integrate new and advancing technologies in the regulatory framework	2.25 (New)	Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk	2024	MSC	CCC		In progress		MSC 105/20, para. 18.28
4. Engage in ocean governance	4.4 (New)	Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers	2023	MSC	NCSR	CCC	In progress		MSC 103/21, para. 18.34
6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; MSC 100/20, para. 17.28
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16, MSC 100/20, paras. 10.3 to 10.6 and 17.28 CCC 6/14, sections 2 and 13
6. Address the human element	6.15	Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))	2022	MSC	CCC		Extended		MSC 101/24, para. 21.48; MSC 104/18, para. 15.16 MSC 104/18, para. 15.16
Notes:	MSC 104 approved target completion year being extended to 2022								
7. Ensure regulatory effectiveness	7.1	Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and	Continuous	MSC / MEPC / FAL / LEG	III / PPR / CCC / SDC / SSE / NCSR		Ongoing		MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; CCC 7/15, section 11; MSC 105/20, para. 15.7

		compensation-related conventions							
7. Ensure regulatory effectiveness	7.10	Amendments to the IMDG Code and supplements	Continuous	MSC	CCC		Ongoing		MSC 105/20, paras. 3.59 and 14.4; CCC 7/15, section 6
7. Ensure regulatory effectiveness	7.13	Amendments to the IMSBC Code and supplements	Continuous	MSC	CCC		Ongoing		MSC 105/20, paras. 3.57 and 14.4; CCC 7/15, section 5
7. Ensure regulatory effectiveness	7.15 (New)	Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of container ships	2025	MSC	CCC	SSE	No work requested		MSC 103/21, para. 18.8; SSE 8/20, section 10
7. Ensure regulatory effectiveness	7.25	Amendments to the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23(59)) to introduce a new class of loading conditions for special compartments	2023	MSC	CCC		Extended		MSC 104/18, para. 15.16
Notes:	MSC 105 noted that CCC 7 deferred the consideration to CCC 8								
7. Ensure regulatory effectiveness	7.28	Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas	Annual	MSC / MEPC	III	CCC	Completed		CCC 7/15, section 9

SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING (HTW)									
Reference to SD, if applicable	**Output number**	**Description**	**Target completion year**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1**	**Year 2**	**References**
1. Improve implementation	1.11	Measures to harmonize port State control (PSC) activities and procedures worldwide	Continuous	MSC / MEPC	HTW / PPR / NCSR	III	No work requested		MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104, para.13.7.1
1. Improve implementation	1.26	Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants	2023	MEPC	III / HTW	PPR	No work requested		MEPC 71/17, paras.14.8 and 14.9; MEPC 72/17, para.15.10; MEPC 73/19, para. 15.19; PPR 6/20, Section 14; and MEPC 74/18, para. 14.5
Notes:	MEPC 74 agreed to expand the scope of the existing output 1.26 and amend the title of the output from "Amendments to the 2012 Guidelines on implementation of effluent standards and performance tests for sewage treatment plants (resolution MEPC.227(64)) to address inconsistencies in their application" to read "Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants".								
1. Improve implementation	1.32	Implementation of the STCW Convention	Continuous	MSC	HTW		Ongoing		MSC 101/24, para. 15.7; MSC 102/24, para. 13.14; HTW 8/16, section 6
2. Integrate new and advancing technologies in the regulatory framework	2.3	Amendments to the IGF Code and development of guidelines for low-flashpoint fuels	Continuous	MSC	HTW / PPR / SDC / SSE	CCC	No work requested		MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4

2. Integrate new and advancing technologies in the regulatory framework	2.8	Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2	2022	MSC	III / HTW / SDC	SSE	Completed		MSC 98/23, para. 20.36; HTW 8/16, section 15; SSE 8/20, section 18, HTW 8/16, section 15
2. Integrate new and advancing technologies in the regulatory framework	2.10	Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS	2022	MSC	HTW / SSE	NCSR	No work requested		MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105) to MSC.499(105), MSC.502(105) to MSC.517(105); MSC.1/Circ.803/Rev.1; MSC.1/Circ.1645
4. Engage in ocean governance	4.3	Follow-up work emanating from the Action Plan to address marine plastic litter from ships	2023	MEPC	III / HTW / PPR		In progress		HTW 8/16, section 8
6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	Ongoing		MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; HTW 8/16, section 4
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	Ongoing		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16
Notes:	MSC 105 approved the holding of virtual meetings of three drafting groups, to take place during 2022, to consider draft model courses for validation at HTW 9, and invited the Council to endorse this decision								
6. Address the human element	6.3	Reports on unlawful practices associated with certificates of competency	Annual	MSC	HTW		Completed		MSC 83/28, para. 12.2; HTW 8/16, section 5

6. Address the human element	6.5	Development of measures to facilitate mandatory seagoing service required under the STCW Convention	2023	MSC	III	HTW	In progress		MSC 101/24, paras. 21.29 and 21.30 HTW 8/16, section 11
6. Address the human element	6.6	Development of measures to ensure quality of onboard training as part of the mandatory seagoing service required by the STCW Convention	2023	MSC	HTW		In progress		MSC 101/24, para. 21.1; HTW 8/16, section 10
6. Address the human element	6.11	Development of training provisions for seafarers related to the BWM Convention	2023	MEPC	HTW		Extended		HTW 8/16, section 12
Notes:	Target completion year extended to 2023								
6. Address the human element	6.12	Comprehensive review of the 1995 STCW-F Convention	2023	MSC	HTW		Extended		MSC 95/22, para. 19.3 and 19.4; MSC 96/25, para. 12.3; HTW 8/16, section 8
Notes:	Target completion year extended to 2023								
6. Address the human element	6.13	Development of amendments to the Revised guidelines for the development, review and validation of model courses (MSC-MEPC.2/Circ.15/Rev.1)	2022	MSC	HTW		Completed		MSC 100/20, paras. 17.7 and 17.8; HTW 8/16, para. 7.6
6. Address the human element	6.14	Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers	2022	MSC	III	HTW	Completed		MSC 100/20, para. 17.12; HTW 8/16, paras. 9.7 to 9.10

6. Address the human element	6.17 (New)	Comprehensive review and revision of the 1978 STCW Convention and Code	2026	MSC	HTW				MSC 105/20, para. 18.13
Notes:	MSC 105 instructed the HTW Sub-Committee to develop and finalize, as a matter of priority, STCW training provisions addressing bullying and harassment in the maritime sector, including sexual assault and sexual harassment, as part of this output.								
7. Ensure regulatory effectiveness	7.32	Requirements for onboard lifting appliances and anchor handling winches	2022	MSC	HTW	SSE	No work requested		MSC 89/25, para. 22.26; MSC 98/23, annex 38; SSE 8/20, section 9
7. Ensure regulatory effectiveness	7.33	Review of 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	2023	MSC	HTW / SDC	SSE	No work requested		MSC 97/22, para. 19.19; MSC 98/23, para. 12.42; SSE 8/20, section 6
Notes:	MSC 106 expected to consider extending target completion year to 2023								
7. Ensure regulatory effectiveness	7.42 (New)	Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars	2024	MSC	HTW / SSE	SDC	No work requested		MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54
Notes:	MSC 105 agreed with SDC 8's recommendation for this output to be transferred to the current 2022-2023 agenda of the SDC sub-committees								

SUB-COMMITTEE ON IMPLEMENTATION OF IMO INSTRUMENTS (III)									
Reference to SD, if applicable	**Output number**	**Description**	**Target completion year**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1**	**Year 2**	**References**
1. Improve implementation	1.4	Analysis of consolidated audit summary reports	Annual	Assembly	MSC / MEPC / LEG / TCC / III	Council	Ongoing		MEPC 61/24, para. 11.14.1; MSC 88/26, para. 10.8; C 120/D, paras. 7.1 and 7.2; MSC 105/20, para. 13.10
1. Improve implementation	1.5	Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)	Annual	MSC / MEPC	III		Ongoing		MEPC 64/23, para. 11.49; MSC 91/22, para. 10.30; MEPC 52/24, para. 10.15. MEPC 72/17, para. 2.7.5; MEPC 74/18, para.11.3; MSC 104/18, para.13.7.3
1. Improve implementation	1.11	Measures to harmonize port State control (PSC) activities and procedures worldwide	Continuous	MSC / MEPC	HTW / PPR / NCSR	III	Ongoing		MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104/18, para.13.7.1
1. Improve implementation	1.14 (New)	Development of guidance in relation to Mandatory IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States	2023	MSC / MEPC	III		In progress		MSC 103/21, para.18.38
1. Improve implementation	1.18 (New)	Development of guidance on assessment and applications of remote surveys, ISM Code audits and ISPS Code verifications	2024	MSC / MEPC	III		In progress		MSC 104/18, para.15.5;

1. Improve implementation	1.26	Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants	2023	MEPC	III / HTW	PPR	No work requested		MEPC 71/17, paras. 14.8 and 14.9; MEPC 72/17, para.15.10; MEPC 73/19, para. 15.19; PPR 6/20, section 14; MEPC 74/18, para. 14.5
Notes:	MEPC 74 agreed to expand the scope of the existing output 1.26 and amend the title of the output from "Amendments to the 2012 Guidelines on implementation of effluent standards and performance tests for sewage treatment plants (resolution MEPC.227(64)) to address inconsistencies in their application" to read "Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants".								
2. Integrate new and advancing technologies in the regulatory framework	2.8	Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2	2022	MSC	III / HTW / SDC	SSE	No work requested		MSC 98/23, para. 20.36; HTW 8/16, section 15; SSE 8/20, section 18
4. Engage in ocean governance	4.3	Follow-up work emanating from the Action Plan to address marine plastic litter from ships	2023	MEPC	III / HTW / PPR		In progress		
6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21;
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16, III 6/15, section 4
6. Address the human element	6.5	Development of measures to facilitate mandatory seagoing service required under the STCW Convention	2023	MSC	III	HTW	No work requested		MSC 101/24, paras. 21.29 and 21.30

6. Address the human element	6.10	Development of an entrant training manual for PSC personnel	2023	MSC / MEPC	III		In progress		MSC 103/21, para.18.36
6. Address the human element	6.14	Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers	2022	MSC	III	HTW	No work requested		MSC 100/20, para. 17.12;
7. Ensure regulatory effectiveness	7.1	Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions	Continuous	MSC / MEPC / FAL / LEG	III / PPR / CCC / SDC / SSE / NCSR		Ongoing		MSC 76/23, para. 20.3; MSC 78/26, para. 22.12;
7. Ensure regulatory effectiveness	7.4	Lessons learned and safety issues identified from the analysis of marine safety investigation reports	Annual	MSC / MEPC	III		Ongoing		MSC 92/26, para. 22.29; III 7/17, section 4
7. Ensure regulatory effectiveness	7.5	Identified issues relating to the implementation of IMO instruments from the analysis of PSC data	Annual	MSC / MEPC	III		Ongoing		MSC 96/25, para. 23.13; MEPC 69/21, para. 19.11; III 7/17, section 6
7. Ensure regulatory effectiveness	7.7	Consideration and analysis of reports on alleged inadequacy of port reception facilities	Annual	MEPC	III		Ongoing		MEPC 69/21, para. 19.11; MEPC 73/19, paras. 8.3 and 8.11; MEPC 74/18, paras. 4.33, 4.34 and 8.22
7. Ensure regulatory effectiveness	7.14 (New)	Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) and amendments to ECDIS performance standards (resolution MSC.232(82))	2023	MSC	III	NCSR	No work requested		MSC 100/20, para. 17.9; MSC 102/24, para. 21.14; MSC 104/18, para. 15.19

7. Ensure regulatory effectiveness	7.27	Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC)	Annual	MSC / MEPC	III		Ongoing		MEPC 68/21, paras. 14.5 and 14.6; MSC 79/23, paras. 9.19 and 9.20; MEPC 72/17, paras. 7.4 and 4.24 to 4.33; MSC 104, para.13.7.2
7. Ensure regulatory effectiveness	7.28	Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas	Annual	MSC / MEPC	III	CCC	Ongoing		CCC 7/15, section 9
7. Ensure regulatory effectiveness	7.31	Finalization of a non-mandatory instrument on regulations for non-convention ships	2022	MSC	III		Postponed		MSC 96/25, para. 9.4; MSC 101/24, para. 21.38; MSC 104, section 5; MSC 105, section 4
Notes:	MSC 102, having considered that MSC 101 had included an item on "measures to improve domestic ferry safety", agreed that the III Sub-Committee should not proceed with the development of a model course (as instructed by MSC 96), pending further instructions from the MSC taking into account the outcome of the work on the item (MSC 102/24, para. 14.10)								

SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE (NCSR)									
Reference to SD, if applicable	**Output number**	**Description**	**Target completion year**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1**	**Year 2**	**References**
1. Improve implementation	1.3 (New)	Revision of the criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS) (resolution A.1001(25))	2023	MSC	NCSR		In progress		MSC 101/24, para. 21.33
1. Improve implementation	1.11	Measures to harmonize port State control (PSC) activities and procedures worldwide	Continuous	MSC / MEPC	HTW / PPR / NCSR	III	No work requested		MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104/18, para.13.7.1
1. Improve implementation	1.20	Revision of the Guidelines on places of refuge for ships in need of assistance (resolution A.949(23))	2022	MSC	NCSR		In progress		MSC 100/20, para. 17.1; MSC 104/18, para. 15.19 NCSR 7/23, section 13; NCSR 8/14/1, section 8
Notes:	MSC 104 extended the target completion year to 2022.								
1. Improve implementation	1.34	Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures	Continuous	MSC	NCSR		Ongoing		
2. Integrate new and advancing technologies in the regulatory framework	2.1	Response to matters related to the ITU-R Study Groups and ITU World Radiocommunication Conference	Continuous	MSC	NCSR		Ongoing		

2. Integrate new and advancing technologies in the regulatory framework	2.9 (New)	Development of amendments to VDR performance standards and carriage requirements	2023	MSC	NCSR		In progress		MSC 101/24, paras. 21.39 to 21.44
2. Integrate new and advancing technologies in the regulatory framework	2.10	Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS	2022	MSC	HTW / SSE	NCSR	In progress		MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105), MSC.497(105) to MSC.499(105), MSC.502(105) to MSC.517(105); MSC.1/Circ.803/Rev.1 MSC.1/Circ.1645
2. Integrate new and advancing technologies in the regulatory framework	2.11	Consideration of descriptions of Maritime Services in the context of e-navigation	2022	MSC	FAL / NCSR		In progress		FAL 43/20, para. 7.21; MSC 101/24, paras. 11.10 and 11.11; resolution MSC.467(101); MSC.1/Circ.1610; MSC 104/18, para. 15.19
2. Integrate new and advancing technologies in the regulatory framework	2.12	Development of generic performance standards for shipborne satellite navigation system receiver equipment	2022	MSC	NCSR		In progress		MSC 104/18, paras. 15.19
2. Integrate new and advancing technologies in the regulatory framework	2.14 (New)	Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers	2022	MSC	NCSR		In progress		MSC 101/24, paras. 21.20 and 21.21; MSC 104/18, para. 5.19; MSC 105/20, paras. 13.7 and 13.8

4. Engage in ocean governance	4.1	Identification and protection of Special Areas, Emission Control Areas and PSSAs and associated protective measures	Continuous	MEPC	NCSR		No work requested		
4. Engage in ocean governance	4.4 (New)	Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers	2023	MSC	NCSR	CCC	No work requested		MSC 103/21, para. 18.34
6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21;
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	Ongoing		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16, NCSR 7/23, section 19
7. Ensure regulatory effectiveness	7.1	Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions	Continuous	MSC / MEPC / FAL / LEG	III / PPR / CCC / SDC / SSE / NCSR		Ongoing		MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; NCSR 7/23, section 18
7. Ensure regulatory effectiveness	7.2	Developments in GMDSS services, including guidelines on maritime safety information (MSI)	Continuous	MSC	NCSR		Ongoing		MSC 104/18, para. 15.19

7. Ensure regulatory effectiveness	7.14 (New)	Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) and amendments to ECDIS performance standards (resolution MSC.232(82))	2023	MSC	III	NCSR	In progress		MSC 100/20, para. 17.9; MSC 102/24, para. 21.14; MSC 104/18, para. 15.19
7. Ensure regulatory effectiveness	7.20	Amendments to the IAMSAR Manual	Continuous	MSC	NCSR		Ongoing		
7. Ensure regulatory effectiveness	7.22	Routeing measures and mandatory ship reporting systems	Continuous	MSC	NCSR		Ongoing		
7. Ensure regulatory effectiveness	7.23	Updates to the LRIT system	Continuous	MSC	NCSR		Ongoing		
7. Ensure regulatory effectiveness	7.35	Safety measures for non-SOLAS ships operating in polar waters	2023	MSC	NCSR	SDC	In progress		MSC 98/23, paras. 10.29, 20.31.1 and 20.31.2 and annex 38; MSC 99/22, paras. 7.16 and 20.13.1; MSC 101/24, paras. 7.6 and 7.9; MSC 102/24, paras. 17.5 to 17.8; MSC 103/21, paras. 15.1 to 15.4; MSC 105/20, para. 18.54
Notes:	TCY extended to 2023 at the request of SDC 8.								

7. Ensure regulatory effectiveness	7.37	Consequential work related to the new International Code for Ships Operating in Polar Waters	2022	MSC	SSE / NCSR	SDC	Completed		MSC 93/22, paras. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4
Notes:	MSC 106 expected to receive the outcome of the completed work from SSE 8.								
OW. Other work	OW 12 (New)	Guidance on the training on and operation of Emergency Personal Radio Devices in multiple casualty situations	2022	MSC	NCSR		In progress		MSC 100/20, para. 17.5

SUB-COMMITTEE ON SHIP DESIGN AND CONSTRUCTION (SDC)									
Reference to SD, if applicable	**Output number**	**Description**	**Target completion year**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1**	**Year 2**	**References**
1. Improve implementation	1.12 (New)	Revision of the 1979, 1989 and 2009 MODU Codes and associated MSC circulars to prohibit the use of materials containing asbestos, including control of storage of such materials on board	2023	MSC	SDC		In progress		MSC 105/20, para. 18.54
1. Improve implementation	1.16 (New)	Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps	2023	MEPC	SDC		In progress		SDC 8/18, section 14 and annex 11
2. Integrate new and advancing technologies in the regulatory framework	2.3	Amendments to the IGF Code and development of guidelines for low-flashpoint fuels	Continuous	MSC	HTW / PPR / SDC / SSE	CCC	No work requested		MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4

2. Integrate new and advancing technologies in the regulatory framework	2.4	Mandatory instrument and/or provisions addressing safety standards for the carriage of more than 12 industrial personnel on board vessels engaged on international voyages	2022	MSC	SDC		Completed		MSC 104/18, para. 11.5; MSC 105/20, section 15; SDC 5/15, section 7; SDC 6/13, section 6; SDC 7/16, section 6; SDC 8/18, section 4 and annexes 1 and 2
2. Integrate new and advancing technologies in the regulatory framework	2.5	Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1	2024	MSC	SSE	SDC			MSC 82/24, para. 3.92; MSC 98/23, annex 38; MSC 102/24, para. 19.16; SDC 8/18, section 9; MSC 105/20, para. 18.54
Note:	MSC 105 approved the recommendation of SDC 8 to retitle the output and the extension of the TCY to 2024.								
2. Integrate new and advancing technologies in the regulatory framework	2.6	Development of Explanatory Notes to the Interim guidelines on second generation intact stability criteria	2022	MSC	SDC		Completed		MSC 85/26, paras. 12.7 and 23.42; MSC 105/20, section 15; MSC.1/Circ.1652; SDC 8/18, para. 5.16 and annex 4
2. Integrate new and advancing technologies in the regulatory framework	2.8	Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2	2022	MSC	III / HTW / SDC	SSE	No work requested		MSC 98/23, para. 20.36; HTW 8/16, section 15; SSE 8/20, section 18
2. Integrate new and advancing technologies in the regulatory framework	2.20 (New)	Development of amendments to SOLAS regulation II-1/3-4 to apply requirements for emergency towing equipment for tankers to other types of ships	2023	MSC	SDC		In progress		SDC 8/18, section 12

6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16
7. Ensure regulatory effectiveness	7.1	Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions	Continuous	MSC / MEPC / FAL / LEG	III / PPR / CCC / SDC / SSE / NCSR		Ongoing		MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; SDC 8/18, section 10
7. Ensure regulatory effectiveness	7.21	Amendments to the 2011 ESP Code	Continuous	MSC	SDC		Ongoing		MSC 92/26, para. 13.31; SDC 8/18, section 6 and annex 5
Notes:	Regular updates to the 2011 ESP Code agreed by MSC 92 (MSC 92/26, paragraph 13.31)								
~~7. Ensure regulatory effectiveness~~	~~7.29~~	~~Mandatory application of the Performance standard for protective coatings for void spaces on bulk carriers and oil tankers~~	~~2022~~	~~MSC~~	~~SDC~~		Deleted		MSC 76/23, paras. 20.41.2 and 20.48; DE 50/27, section 4; MSC 105/20, para. 18.54; SDC 8/18, section 7
Notes:	MSC 105 agreed to delete this output, at the recommendation of SDC 8.								
~~7. Ensure regulatory effectiveness~~	~~7.30~~	~~Performance standard for protective coatings for void spaces on all types of ships~~	~~2022~~	~~MSC~~	~~SDC~~		Deleted		MSC 76/23, paras. 20.41.2 and 20.48; MSC 105/20, para. 18.54; SDC 8/18, section 8
Notes:	MSC 105 agreed to delete this output, at the recommendation of SDC 8.								

7. Ensure regulatory effectiveness	7.33	Review of 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	2022	MSC	HTW / SDC	SSE	No work requested		MSC 97/22, para. 19.19; MSC 98/23, para. 12.42; SSE 8/20, section 6
Notes:	MSC 106 expected to consider extending target completion year to 2023								
7. Ensure regulatory effectiveness	7.35	Safety measures for non-SOLAS ships operating in polar waters	2023	MSC	NCSR	SDC			MSC 98/23, paras. 10.29, 20.31.1 and 20.31.2 and annex 38; MSC 105/20, para. 18.54, SDC 8/18, section 3
Notes:	TCY extended to 2023								
7. Ensure regulatory effectiveness	7.37	Consequential work related to the new International Code for Ships Operating in Polar Waters	2022	MSC	SSE / NCSR	SDC	No work requested		MSC 93/22, paras. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4
7. Ensure regulatory effectiveness	7.38	Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))	2023	MSC	SSE	SDC	Completed		MSC 102/24, para. 17.23; SDC 8/18, section 13 and annex 10
Notes:	MSC 105 adopted resolution MSC.188(79)/Rev.1 on Revised performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12 but requested SDC 9 in 2023 to consider document MSC 105/15/1 (IACS), thus TCY extended to 2023.								

7. Ensure regulatory effectiveness	7.42 (New)	Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars	2024	MSC	HTW / SSE	SDC			MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54; SDC 8/18, para. 15.6
Notes:	MSC 105 agreed with SDC 8's recommendation for this output to be transferred to the current 2022-2023 agenda of the SDC sub-committees								

SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT (SSE)†									
Reference to SD, if applicable	**Output number**	**Description**	**Target completion year**	**Parent organ(s)**	**Associated organ(s)**	**Coordinating organ**	**Status of output for Year 1**	**Year 2**	**References**
1. Improve implementation	1.30	Review of the 2014 Standard specification for shipboard incinerators (resolution MEPC.244(66)) regarding fire protection requirements for incinerators and waste stowage spaces	2022	MEPC	SSE		Completed		SSE 8/20, para. 19.7
Notes:	MEPC 77/16/Add.1								
2. Integrate new and advancing technologies in the regulatory framework	2.3	Amendments to the IGF Code and development of guidelines for low-flashpoint fuels	Continuous	MSC	HTW / PPR / SDC / SSE	CCC	No work requested		MSC 94/21, para. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4
2. Integrate new and advancing technologies in the regulatory framework	2.5	Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III	2022	MSC	SSE	SDC	No work requested		MSC 82/24, para. 3.92; MSC 98/23, annex 38; MSC 102/24, para. 19.16; SSE 7, section 10

† SSE 8 formally reports to MSC 106. However, for the purpose of this status report, MSC 105 approved the SSE Sub-Committee's biennial agenda, as prepared by SSE 8.

2. Integrate new and advancing technologies in the regulatory framework	2.8	Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2	2023	MSC	III / HTW / SDC	SSE	Extended		MSC 98/23, para. 20.36; HTW 8/16, section 15; SSE 8/20, section 18
2. Integrate new and advancing technologies in the regulatory framework	2.10	Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS	2022	MSC	HTW / SSE	NCSR	No work requested		MSC 105/20, section 3; MSC.496(105) to MSC.499(105), MSC.502(105) to MSC.517(105); MSC.1/Circ.803/Rev.1; MSC.1/Circ.1645; SSE 6/18, para. 17.8
2. Integrate new and advancing technologies in the regulatory framework	2.16	Revision of SOLAS chapter III and the International Life-Saving Appliance (LSA) Code	2024	MSC	SSE		Ongoing		SSE 8/20, section 5
Notes:	To remove gaps, inconsistencies and ambiguities based on the safety objectives, functional requirements and expected performance for SOLAS chapter III								
6. Address the human element	6.1	Role of the human element	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	No work requested		MSC 89/25, para. 10.10, 10.16 and annex 21; MSC 100/20, para. 17.28
6. Address the human element	6.2	Validated model training courses	Continuous	MSC / MEPC	III / PPR / CCC / SDC / SSE / NCSR	HTW	Ongoing		MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16
7. Ensure regulatory effectiveness	7.1	Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions	Continuous	MSC / MEPC / FAL / LEG	III / PPR / CCC / SDC / SSE / NCSR		Ongoing		MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; SSE 7/21, section 16

7. Ensure regulatory effectiveness	7.15 (New)	Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of container ships	2025	MSC	CCC	SSE	Ongoing		MSC 103/21, para. 18.8; SSE 8/20, section 10
7. Ensure regulatory effectiveness	7.19	Revision of the Code of safety for diving systems (resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (resolution A.692(17))	2024	MSC	SSE		Extended		MSC 99/22, para. 20.26; SSE 8/20, section 14
Notes:	MSC 106 is requested to extend the target completion year to 2024.								
7. Ensure regulatory effectiveness	7.32	Requirements for onboard lifting appliances and anchor handling winches	2022	MSC	HTW	SSE	Completed		MSC 89/25, para. 22.26; MSC 98/23, annex 38; SSE 8/20, section 9
Notes:	SSE 8 completed the work and reported the outcome to MSC 106 and MSC 107, as appropriate.								
7. Ensure regulatory effectiveness	7.33	Review of 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	2023	MSC	HTW / SDC	SSE	Extended		MSC 97/22, para. 19.19; MSC 98/23, para. 12.42; SSE 8/20, section 6
Notes:	MSC 106 expected to consider extending target completion year to 2023								

7. Ensure regulatory effectiveness	7.34	Amendments to Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ship carrying liquefied gases in bulk (MSC.1/Circ.1315)	2022	MSC	SSE		Completed		MSC 98/23, para. 20.37; SSE 7/21, section 7; SSE 8/20, section 7
Notes:	SSE 8 reported the outcome to MSC 106								
7. Ensure regulatory effectiveness	7.36	New requirements for ventilation of survival craft	2023	MSC	SSE		Extended		MSC 97/22, para. 19.22; SSE 8/20, section 3
Notes:	SSE 8 requested MSC 106 to extend TCY to 2023								
7. Ensure regulatory effectiveness	7.37	Consequential work related to the new International Code for Ships Operating in Polar Waters	2022	MSC	SSE / NCSR	SDC	Completed		MSC 93/22, para. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4
Notes:	MSC 106 expected to receive the outcome of the completed work from SSE 8.								
7. Ensure regulatory effectiveness	7.38	Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))	2022	MSC	SSE	SDC	No work requested		MSC 102/24, para. 17.23

Notes:	MSC 105 adopted resolution MSC.188(79)/Rev.1 on Revised performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12 but requested SDC 9 in 2023 to consider document MSC 105/15/1 (IACS), thus TCY extended to 2023.								
7. Ensure regulatory effectiveness	7.39	Development of amendments to the LSA Code and resolution MSC.81(70) to address the in-water performance of SOLAS lifejackets	2023	MSC	SSE		In progress		MSC 101/24, para. 21.6; MSC 102/24, para. 21.19; SSE 8/20, section 8
7. Ensure regulatory effectiveness	7.40	Development of amendments to SOLAS chapter II-2 and MSC.1/Circ.1456 addressing fire protection of control stations on cargo ships	2023	MSC	SSE		In progress		MSC 101/24, para. 21.3; MSC 102/24, para. 21.19; SSE 8/20, section 11
7. Ensure regulatory effectiveness	7.41	Development of provisions to prohibit the use of fire-fighting foams containing perfluorooctane sulfonic acid (PFOS) for fire-fighting on board ships	2022	MSC	SSE		Completed		MSC 101/24, para. 21.27; MSC 102/24, paras. 19.31 and 21.19; SSE 8/20, section 12
Notes:	MSC 106 to receive the outcome of SSE 8 which has completed the work.								
7. Ensure regulatory effectiveness	7.42 (New)	Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars	2024	MSC	HTW / SSE	SDC			MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54

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ANNEX 41

PROVISIONAL AGENDAS FOR THE FORTHCOMING SESSIONS OF THE SUB-COMMITTEES

PROVISIONAL AGENDA FOR CCC 8

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 (2.3)

4 Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service (2.22)

5 Amendments to the IMSBC Code and supplements (7.13)

6 Amendments to the IMDG Code and supplements (7.10)

7 Amendments to the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23 (59)) to introduce a new class of loading conditions for special compartments (7.25)

8 Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27)) (6.15)

9 Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas (7.28)

10 Review of the IGC Code (1.17)

11 Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers (4.4)

12 Unified interpretation of provisions of IMO safety, security, and environment-related conventions (7.1)

13 Development of guidelines for the safety of ships using ammonia as fuel (2.24)

14 Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk (2.25)

15 Biennial status report and provisional agenda for CCC 9

16 Election of Chair and Vice-Chair for 2023

17 Any other business

18 Report to the Committees

PROVISIONAL AGENDA FOR HTW 9

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Validated model training courses (6.2)

4 Role of the human element (6.1)

5 Reports on unlawful practices associated with certificates of competency (6.3)

6 Implementation of the STCW Convention (1.32)

7 Comprehensive review of the 1978 STCW Convention and Code (6.17)

8 Comprehensive review of the 1995 STCW-F Convention (6.12)

9 Development of measures to ensure quality of onboard training as part of the mandatory seagoing service required by the STCW Convention (6.6)

10 Development of measures to facilitate mandatory seagoing service required under the STCW Convention (6.5)

11 Development of training provisions for seafarers related to the BWM Convention (6.11)

12 Biennial status report and provisional agenda for HTW 10

13 Election of Chair and Vice-Chair for 2024

14 Any other business

15 Report to the Maritime Safety Committee

PROVISIONAL AGENDA FOR III 8

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Consideration and analysis of reports on alleged inadequacy of port reception facilities (7.7)

4 Lessons learned and safety issues identified from the analysis of marine safety investigation reports (7.4)

5 Measures to harmonize port State control (PSC) activities and procedures worldwide (1.11)

6 Development of an entrant training manual for PSC personnel (6.10)

7 Identified issues relating to the implementation of IMO instruments from the analysis of PSC data (7.5)

8 Analysis of consolidated audit summary reports (1.4)

9 Development of guidance in relation to IMSAS to assist in the implementation of the III Code by Member States (1.14)

10 Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) (7.27)

11 Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code) (1.5)

12 Development of guidance on assessments and applications of remote surveys, ISM Code audits and ISPS Code verifications (1.18)

13 Unified interpretation of provisions of IMO safety, security and environment-related conventions (7.1)

14 Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships (4.3)

15 Biennial agenda and provisional agenda for III 9

16 Election of Chair and Vice-Chair for 2023

17 Any other business

18 Report to the Committees

PROVISIONAL AGENDA FOR NCSR 9

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Routeing measures and mandatory ship reporting systems (7.22)

4 Updates to the LRIT system (7.23)

5 Development of generic performance standards for shipborne satellite navigation system receiver equipment (2.12)

6 Safety measures for non-SOLAS ships operating in polar waters (7.35)

7 Consideration of descriptions of Maritime Services in the context of e-navigation (2.11)

8 Revision of the *Guidelines on places of refuge for ships in need of assistance* (resolution A.949(23)) (1.20)

9 Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS (2.10)

10 Developments in GMDSS services, including guidelines on maritime safety information (MSI) (7.2)

11 Revision of the *Criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS)* (resolution A.1001(25))(1.3)

12 Response to matters related to the ITU-R Study Groups and ITU World Radiocommunication Conference (2.1)

13 Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures (1.34)

14 Amendments to the IAMSAR Manual (7.20)

15 Guidance on the training on and operation of emergency personal radio devices in multiple casualty situations (OW 12)

16 Revision of *ECDIS Guidance for good practice* (MSC.1/Circ.1503/Rev.1) and amendments to *ECDIS performance standards* (resolution MSC.232(82))(7.14)

17 Development of amendments to VDR performance standards and carriage requirements (2.9)

18 Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers (2.14)

19 Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions (7.1)

20 Validated model training courses (6.2)

21 Biennial status report and provisional agenda for NCSR 10

22 Election of Chair and Vice-Chair for 2023

23 Any other business

24 Report to the Maritime Safety Committee

PROVISIONAL AGENDA FOR SDC 9

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Safety measures for non-SOLAS ships operating in polar waters (6.38)

4 Further development of the IP Code and associated guidance (2.4)

5 Review of the Guidelines for the reduction of underwater noise (MEPC.1/Circ.833) and identification of next steps

6 Amendments to the 2011 ESP Code (6.22)

7 Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1 (2.5)

8 Revision of the 1979, 1989 and 2009 MODU Codes and associated MSC circulars to prohibit the use of materials containing asbestos, including control of storage of such materials on board (tbc)

9 Development of amendments to SOLAS regulation II-1/3-4 to apply requirements for emergency towing equipment for tankers to other types of ships (tbc)

10 Unified interpretation to provisions of IMO safety, security, and environment-related conventions (6.1)

11 Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars (tbc)

12 Biennial status report and provisional agenda for SDC 10

13 Election of Chair and Vice-Chair for 2024

14 Any other business

15 Report to the Maritime Safety Committee

PROVISIONAL AGENDA FOR SSE 9*

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 New requirements for ventilation of survival craft (7.36)

4 Development of amendments to the LSA Code to revise the lowering speed of survival craft and rescue boats for cargo ships

5 Revision of SOLAS chapter III and the LSA Code (2.16)

6 Review of 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 (7.33)

7 Development of amendments to the LSA Code for thermal performance of immersion suits

8 Development of amendments to the LSA Code and resolution MSC.81(70) to address the in-water performance of SOLAS lifejackets (7.39)

9 Revision of the provisions for helicopter facilities in SOLAS and the MODU Code

10 Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of containerships (7.15)

11 Development of amendments to SOLAS chapter II-2 and MSC.1/Circ.1456 addressing fire protection of control stations on cargo ships (7.40)

12 Revision of the Code of Safety for Diving Systems (resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (resolution A.692(17)) (7.19)

13 Validated model training courses (6.2)

14 Unified interpretation of provisions of IMO safety, security and environment-related conventions (7.1)

15 Biennial status report and provisional agenda for SSE 10

16 Election of Chair and Vice-Chair for 2024

17 Any other business

18 Report to the Maritime Safety Committee

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* SSE 8 formally reports to MSC 106; however, for the purpose of this annex, MSC 105 approved the provisional agenda for SSE 9.

ANNEX 42

SUBSTANTIVE ITEMS FOR INCLUSION IN THE AGENDAS FOR MSC 106 AND MSC 107

106TH SESSION OF THE COMMITTEE (2 TO 11 NOVEMBER 2022)

Decisions of other IMO bodies

Amendments to mandatory instruments

Goal-based new ship construction standards

Development of a goal-based instrument for maritime autonomous surface ships (MASS)

Measures to enhance maritime security

Piracy and armed robbery against ships

Unsafe mixed migration by sea

Formal safety assessment

Human element, training and watchkeeping
(report of the eighth session of the Sub-Committee)

Ship systems and equipment
(report of the eighth session of the Sub-Committee)

Pollution prevention and response
(matters emanating from the ninth session of the Sub-Committee)

Navigation, communications and search and rescue
(report of the ninth session of the Sub-Committee)

Implementation of IMO instruments
(report of the eighth session of the Sub-Committee)

Application of the Committee's method of work

Work programme

Election of Chair and Vice-Chair for 2023

Any other business

107TH SESSION OF THE COMMITTEE[20] (31 MAY TO 9 JUNE 2023)

Decisions of other IMO bodies

Amendments to mandatory instruments

[Measures to improve domestic ferry safety]

Development of further measures to enhance the safety of ships relating to the use of fuel oil

Goal-based new ship construction standards

Development of a goal-based instrument for maritime autonomous surface ships (MASS)

Measures to enhance maritime security

Piracy and armed robbery against ships

Unsafe mixed migration by sea

Formal safety assessment

Navigation, communications and search and rescue
(report of the tenth session of the Sub-Committee)

Carriage of cargoes and containers
(report of the eighth session of the Sub-Committee)

Ship design and construction
(report of the ninth session of the Sub-Committee)

Human element, training and watchkeeping
(report of the ninth session of the Sub-Committee)

Ship systems and equipment
(report of the ninth session of the Sub-Committee)

Application of the Committee's method of work

Work programme

Election of Chair and Vice-Chair for 2024

Any other business

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[20] The list of items for inclusion in the agenda of MSC 107 is indicative only and depends on the outcome of MSC 106.

ANNEX 43

STATEMENTS BY DELEGATIONS AND OBSERVERS[21]

AGENDA ITEM 2

Statement by the delegation of Ukraine

"For over 8 years Russia tried to reshape the international maritime legal order.

IMO conventions and instruments were breached: the freedom of ships movement in the Black Sea of Azov was limited, vessels and sea-based platforms were captured by the modern day Russian pirates, marine environment was endangered and seafarers were harassed. The IMO and its member states looked the other way, listening to Russia's statements that the Organisation and MSC in particular, may not be an appropriate forum, although it changed its rhetoric's during the recent extraordinary session of the Council.

While you were ignoring the warnings coming from Ukraine, Russia continued to stir up regional conflicts for its own political gain. This policy of Russia's appeasement led to the fact that the Russian Mordor felt everything it does will go unpunished and started the full-scale war. The results are horrifying: almost 8 thousand of registered Russian war crimes, over two thousand killed civilians, among them 205 children, over 3 thousand injured, 6800 civilian buildings destroyed, millions of people were displaced.

But Russia hasn't limited itself with the mentioned atrocities. Russian navy deliberately attacks and seizes neutral commercial vessels, uses them as human shield in its offensive, threatens the safety and welfare of seafarers and the marine environment, ruins the critical port infrastructure .

3 vessels were captured, over 10 damaged by the shellings or missile strikes, port infrastructure of Mariupol, Berdiansk, Mykolaiv, Kherson lies in ruins. Russia's invasion of Ukraine is a wakeup call to eliminate its influence wherever you find it. It is high time to de-Putinise the world. Let's start with the IMO:

1. Prevent Russia from abusing its seat at the IMO Council and manipulating the Organization in general;

2. Isolate it completely by cutting off the technical assistance and avoiding holding any IMO events in Russia;

3. Block the election of Russian representatives to the working bodies of the IMO;

4. Cancel Russia's membership in the professional maritime organisation; and

5. Impose a full embargo on Russian shipping, in particular bloody energy imports, until the full withdrawal of Russian forces from Ukraine.

Any form of cooperation with Putin's terrorist state means sharing responsibility for its crimes.

[21] Statements have been included in this annex in the order in which they are listed in the report, sorted by agenda items and in the language of submission (including translation into any other language if such translation was provided).

Ukraine, unlike the aggressor state, strictly observes its international obligations. While exercising its right to self-defence in accordance with Article 51 of the UN Charter, Ukraine only targets Russian warships at sea, which are responsible for thedeaths and injuries of Ukrainians and foreign sailors.

Thus, we do our best to facilitate Russian sailors' from landing ship Saratov and the cruiser Moskva access to Neptune's Kingdom. A gentle reminder to Russian navy: the Black Sea is closed for your entry only. Units of Russian fleet that remain afloat still have a way out."

Statement by the delegation of Australia

"Australia joins other states in condemning the Russian Federation's unprovoked, unjustified and unlawful invasion of Ukraine in the strongest possible terms. It is a gross violation of international law and the Charter of the United Nations. The Russian Federation's actions present an immediate and ongoing threat to the safety of shipping and the marine environment in the Black Sea and the Sea of Azov. Australia urges the Russian Federation to cease its unlawful activities to ensure the safety of international shipping and protection of the marine environment."

Statement by the delegation of Canada

"Canada condemns in the strongest possible terms Russia's egregious invasion on Ukraine. This invasion is not just an attack on Ukraine. It is an attack on international law, democracy, freedom, and human rights. The invasion also severely threatens the safety of and security of merchant shipping, the protection of the marine environment, the lives of seafarers and the integrity of global supply lines.

Russia must be held accountable for its aggression in Ukraine. Canada has taken swift action to ban any ship that is Russian registered, owned, operated, or chartered from docking in Canada or passing through our internal waters. Canada will also work with its allies to ensure that the Russia Federation does not occupy any position of leadership at the IMO or other international agencies.

I ask that my Statement be attached to the record of decision.

On Safe Corridors: Canada would like to thank both Ukraine and Panama for their documents. My delegation remains deeply concerned by the impact the armed conflict in Ukraine is having on the safety and security of merchant shipping, the integrity of global supply chains, food security and especially on seafarers.

In light of the Council's direction that ships should be allowed to sail from the ports of Ukraine at the earliest opportunity without threat of attack; and that humanitarian corridors be set up that enable the safety of seafarers by allowing them to leave the conflict zone and return home, as appropriate. And, the Council's direction to each committee to consider ways for member states and observer delegations to enhance efforts to support affected seafarers and commercial vessels,

Canada believes that the MSC should develop a resolution underlining the urgent humanitarian need to evacuate ships and seafarers from the conflict zone; engaging all relevant players and proposing concrete solutions. Canada supports the establishment of an informal group during this session to develop the text of a resolution that the Committee could consider and adopt."

Statement by the delegation of Dominica

"The United Nations Convention on the Law of the Sea – UNCLOS – describes in Part 2, Section 3, the "Innocent passage in the territorial sea". While IMO is not the governing body for UNCLOS, we believe this is relevant information to this committee.

On the 5th of April 2022 a vessel under our flag, M.V. AZBURG was attacked and completely destroyed in the port of Mariupol, Ukraine. Missiles, shells, and bombs hit the vessel, causing a fire and led to the subsequent sinking of the vessel. This act, violated not only the UNCLOS Article, but many other UN Conventions as well.

The United Nations Declaration of Human Rights states in Article 3 that "Everyone has the right to life, liberty and security of person". The vessel was the temporary home and workplace of 12 seafarers. After the attack, they sought refuge on board of neighbouring ships. Last week, on 12th April 2022 our Administration received information that all crewmembers of M.V. Azburg and other vessels, were taken from the Port of Mariupol.

We currently remain uncertain of the fate and safety of the people that were taken and are deeply concerned and worried about them. The Commonwealth of Dominica Maritime Administration calls upon all IMO Member States, Intergovernmental organizations and non-governmental organizations to find a way to work collectively, in order to expedite the rendering of humanitarian assistance. Everyone has the right to live, be free and be safe."

Statement by the delegation of France

"At the outset, on behalf of the European Union's Member States members of the IMO, France wishes to express our full solidarity with Ukraine and the Ukrainian people. We condemn in the strongest possible terms the unprovoked and unjustified act of aggression of the Russian federation against Ukraine, which grossly violates international law and the UN Charter. We demand that the Russian federation immediately ceases its military actions, withdraws all its troops from the entire territory of Ukraine and abides by UN General Assembly resolution titled "Aggression against Ukraine" supported by 141 states at the 11th emergency special session. I would like to recall in this respect that, faced with an increasingly worrying situation, the European Union member states recently decided to ban Russian ships from their ports.

At the IMO, the 35th extraordinary session of the Council has adopted in March by consensus a declaration strongly condemning the Russian Federation's violation of the territorial integrity and sovereignty of Ukraine, including its territorial waters, which represents a grave danger to life and a serious risk to safety of navigation and to the marine environment. This declaration underlined the dire consequences of this situation on safety and welfare of seafarers and on the security of international shipping as well as the need to preserve the supply chains that sustain both other nations and the people of Ukraine. As a consequence, IMO committees have been invited to consider the implications of this invasion for the implementation of the Organisation's instruments and take appropriate action. This is what we want to see done during this session."

Statement by the delegation of Georgia

"The Georgian delegation would like to align itself with the intervention made by the distinguished delegate of France. We support the initiative of adopting a Maritime Safety Committee Resolution proposed by France.

Georgia believes that it is essential that ships, seafarers are afforded full opportunity for safe return home. This constitutes the international legal undertaking of the Russian Federation on the occupied territories of Ukraine.

We demand that the Russian Federation ceases its unlawful activities, including attacks on commercial vessels, ensures the safety and welfare of seafarers and the security of international shipping in all affected areas, as well as respects its obligations under relevant international treaties and conventions. This delegation thanks the Secretary General for his efforts to date in underlining the risks that the conflict in Ukraine poses to the safety and security of merchant shipping and to the safety and wellbeing of seafarers and in trying to find solutions.

On an additional note, the Georgian side wishes to express its position on the unilateral action of the Russian Federation, when it circulated a note verbal regarding the establishment of the Blue Maritime Safety Corridor. Georgia is of the view that such unilateral actions will not facilitate the resolution of the shipping crisis, the establishment of the blue maritime corridor in the Black Sea shall be the result of the joint cooperation and work of the Russian Federation and Ukraine. Georgia once again reiterates its unwavering support for the independence, sovereignty and territorial integrity of Ukraine within its internationally recognized borders."

Statement by the delegation of Iceland

"Iceland would like to associate itself with the Statement of France, UK and others in condemning the unprovoked invasion against the fully independent State of Ukraine and one of our IMO Member States."

Statement by the delegation of Ukraine

"'Every madness has its own logic' – this Shakespearean phrase brightly describes the Russian vision of the situation in the Black Sea, as this aggressor state is the one responsible for starting the unprovoked war, attacking the commercial vessels and planting uncontrolled mines at sea to prevent the Ukrainian navy from counter-offensive operations and commercial vessels from leaving the ports, and now it is Russia that blames Ukraine for the current security situation and other delegations for providing the unsubstantiated interventions.

The Ukrainian side already conducts the investigations into the relevant cases and those responsible for those atrocities will be brought to justice. With regard to the comments made by the Russian delegation concerning the safe evacuation of seafarers, we would advise the member states, whose vessels were stranded in Ukrainian ports, to pay particular attention to this problem, in particular with regard to the harassment of Ukrainian seafarers serving on their ships.

In recent Russian interventions its representatives claimed that they evacuated the seafarers from following ships in Mariupol: Azburg, Blue Star I and Smarta. Yet, we have received a message from the Captain of m/v Azburg, who states that the crew managed to leave Mariupol on their own, with no assistance by anyone and even helped their fellow seafarers from m/v Lady Augusta. For almost two weeks, the Ukrainian seafarers from Azburg, Blue Star I and Smarta have been held captive in Donetsk in severe conditions, while the seafarers of other nationalities (Syria, Bulgaria and Russia) were released without any delay."

Statement by the delegation of New Zealand

"New Zealand condemns, unequivocally, the unprovoked and unjustified attack by Russia on Ukraine and aligns with the statement made by Australia."

Statement by the delegation of Norway

"Norway joins other members in condemning Russia's attack on Ukraine in the strongest possible terms. Russia's aggressive actions are a clear violation of Ukraine's independence, sovereignty, and territorial integrity. We also condemn Belarus's assisting role in this war of aggression. Russia's attack on Ukraine with the assistance of Belarus is an unprovoked and illegal attack on a peaceful neighbour. It is a clear and unacceptable violation of international law. It is a flagrant breach of the most fundamental rules of international relations and respect for the sovereignty and territorial integrity of UN member states. Norway stays united with the Ukrainian people in these horrible times."

Statement by the delegation of Republic of Korea

"The DPR Korea is of view that during our discussion, we should focus on the matters of safety and security of seafarers and shipping, rather than putting the pressure on other member state. The pressure against a member state is never helpful for gaining the object of our discussion including minimizing the negative impacts on maritime safety and sustainable shipping in current situation. In particular, our discussion should not go beyond the mandate of Committee."

Statement by the delegation of Turkey

"We would like to join the previous speakers in expressing our deep concern about the serious threat posed by the current situation in and around Ukraine to the safety and security of merchant shipping and to the safety and wellbeing of seafarers.

Turkey supports the political unity, sovereignty and territorial integrity of Ukraine. Turkey continues to exert every possible efforts to find a diplomatic and peaceful solution to the ongoing conflict. Turkey keeps the dialogue channels open with both Ukraine and Russian Federation in order to help restore maritime security, safety of navigation and the safety of seafarers in the Black Sea.

We believe that the IMO should address the impacts of the conflict on shipping and seafarers in the region. With this understanding, Turkey was among the leading Members of the Council that have requested an extraordinary session of the Council. We would like to thank Secretary General for his efforts in addressing the safety and security of merchant shipping from the outset of the conflict in Ukraine. We would also like to commend the hard work of the Secretariat in trying to find solutions to the safety and wellbeing of seafarers.

We are closely monitoring the situation with respect to the possible threats to merchant ships and seafarers operating in the Black Sea. As a part of the ongoing vigilant work of the relevant Turkish authorities, the Turkish Navy has defused detected stray naval mines in the Turkish waters. We continue to take all necessary measures in order to ensure the safe continuation of maritime traffic. The Turkish authorities are working in close contact and cooperation with their counterparts in the neighbouring countries.

We expect this Committee to address the delicate situation in the Black Sea and Sea of Azov within its own mandate as well and report to the Council about the outcomes of its deliberations."

Statement by the delegation of Ukraine

"As of April 2022, there remain 84 vessels, with around 550 seafarers onboard, from 24 flag states, locked in Ukrainian ports due to Russian armed aggression. As mentioned before the

majority of the seafarers are of Ukrainian origin. Ukraine is grateful to the delegation of Dominica for raising this issue and calling for the Russian federation to provide such protection to Ukrainian seafarers in accordance with the IHL and, respectively, their evacuation to safe places.

Note: Ukraine (246), Syria (98), Turkey (86), Philippines (39), Azerbaijan (26), Georgia (14), Russian Federation (13), Bulgaria (11), Lebanon (9), Egypt (6), China (2), Greece (1), Palestine (1), Yemen (1)

By its decision of the 35 C.ES has highlighted the need for establishing "blue safe maritime corridors" to evacuate vessels stranded in Ukrainian seaports after the start of Russian full-scale invasion. This could only be accomplished if following factors are met: Russia must cease the military hostilities and withdraw its troops from the region, stops naval blockade, and ensures that the internationally promulgated sea routes are free to operate, and the sea mines, placed by the Russian navy, are dealt with.

To conduct an independent and objective assessment of the situation on the ground, we consider that the IMO may consider taking a proactive stance on this issue. We invite the IMO leadership to follow the example of other international organizations, like the IAEA, and personally observe the state of affairs in the Black Sea and the Sea of Azov and to evaluate the possibility of establishing the maritime humanitarian corridors as well as provision of assistance to seafarers. We would be happy to welcome the Secretary-General of the IMO, together with the members of his Emergency Task Force, as well as ILO and ITF in Ukraine.

We would appreciate it if this statement will be appended to the Committee's report."

Statement by the delegation of United Kingdom

"The United Kingdom, along with our international partners, stand united in condemning the Russian government. Russia's continued assault on Ukraine is an unprovoked, premeditated attack against a sovereign democratic state which constitutes a flagrant violation of international law and the international rules-based order. The UK remains fully committed to upholding the sovereignty and territorial integrity of Ukraine within its internationally recognised borders. As a Permanent Member of the UN Security Council, Russia has a particular responsibility to uphold international peace and security. Instead, it is violating the borders of another country and its actions are causing widespread suffering.

The Russian Government has shown that it was never serious about engaging in diplomacy – it has deliberately worked to mislead the world, in order to mask its carefully planned aggression. As the UN Secretary-General has said, such unilateral measures conflict directly with the United Nations Charter – the use of force by one country against another is the denial of the principles that every country has committed to uphold.

The UK condemns these actions and we again call for the Russian Government to cease its military actions in Ukraine and immediately de-escalate the situation. The UK remains steadfast in standing with the people of Ukraine. We are joined in our outrage by friends and allies around the world. We will work with them – for however long it takes – to ensure that the sovereignty and independence of Ukraine is restored."

Statement by the delegation of United States

"The United States recalls the recent decisions of the IMO Council's thirty-fifth extraordinary session, strongly condemning the Russian Federation's violation of the territorial integrity and the sovereignty of Ukraine, extending to its territorial waters, which is in contravention of the

Charter of the United Nations and the purposes of the IMO as set forth in Article 1 of the Convention.

The United States condemns Russia's war of choice against Ukraine and the horrific consequences for civilians in Ukraine of the Russian military's brutal invasion. Russia continues shelling Ukraine's cities, striking hospitals, demolishing schools, levelling civilian infrastructure, and killing hundreds of civilians. The United States deplores these attacks and condemns in the strongest possible terms the killing of Ukrainian civilians in areas held by Russian forces. We deplore as well reports of unprovoked attacks of the Russian Federation aimed at commercial vessels, threatening the safety and welfare of seafarers and the marine environment. We also condemn the suspension of innocent passage in territorial sea areas in the Black Sea.

We again strongly condemn Russia's unlawful efforts to impede access to the Kerch Strait and Sea of Azov and demand that Russia respect Ukraine's sovereignty and territorial integrity within its internationally recognized borders, extending to its territorial waters. We call on Russia to withdraw its forces from Ukraine and to respect its obligations under relevant international treaties and conventions. We remain committed to the sovereignty and territorial integrity of Ukraine within its internationally recognized borders including its territorial waters."

Statement by the delegation of Vanuatu

"Vanuatu would like to remind all members of the United Nations that we all agreed to abide by the principles and purposes of the UN Charter when we decided to join the United Nations. This is irrespective of whether one is a small or a large powerful country. Today we urgently need to translate these ideals into practice to ensure that international peace and security is guaranteed for all. Vanuatu is deeply concerned with the crisis and calls for the parties involved to respect international law, the territorial integrity and national sovereignty of Ukraine. Vanuatu calls for an immediate ceasefire and urge all parties to peacefully resolve the conflict in a manner that is consistent with the principles of the UN Charter and international law.

Vanuatu supported the adoption of the UN General Assembly resolution on 2 March 2022, but also the IMO Council declaration adopted during its 35 Ext Session and Vanuatu will continue supporting actions by the IMO aiming at preserving maritime security, safety of Navigation and seafarers, and the protection of the marine environment in the Black Sea and the Sea of Azov and we therefore welcome in principle the proposal made by France to adopt an MSC Resolution at this Session. Lastly, we wish to thank the IMO Secretary General and the Secretariat for their action to protect the lives of seafarers in the black sea and the sea of Azov."

AGENDA ITEM 4

Statement by the delegation of Thailand

"The delegation of Thailand would like to thank the Secretariat for preparing document MSC 105/4 including the draft MSC resolution to disseminate the Model Regulations on Domestic Ferry Safety which this committee approved at its last session.

Madam Chair, this delegation has been working on this matter to support IMO and will continue to do so as we see that this aspect will directly contribute to the improvement of safety of life at sea and enhance quality of life under the UN Sustainable Development Goals. We are very grateful for the support and collaboration received from member States and this Organization, especially from the Maritime Safety Division, in particular Mr. Irfan Rahim, Head of Special

Projects. We also thank China for working with Thailand in organising capacity building activities in the Asia and the Pacific region (e.g. ARF Ferry Safety Workshop and Training).

In pursuing the work plan and to achieve the desired outcomes, this delegation would like to emphasis that synergy and collaboration among concerned parties is the key. Approving and disseminating of the Model Regulations is a crucial step. Having said that, Madam Chair, this delegation requests the Committee, through you Madam Chair, to adopt the draft Resolution in the annex of document 105/4."

AGENDA ITEM 7

Statement by the delegation of Argentina

"Argentina thanks the information provided with regard to tests of the functioning of MASS. At the same time, we would like to recall that degrees of autonomy 3 and 4 are not contemplated in the United Nations Convention on the Law of the Sea (UNCLOS) and therefore their possible entry into a costal States' jurisdictional waters is subject to consent by coastal States."

AGENDA ITEM 12

Statement by the delegation of Argentina

"The Argentine Republic participated in the Working Group on cost implications for MSI and SAR information providers concerning the recognition of multiple GMDSS mobile satellite services. We than its Chairman, its Secretary and all delegations. We also thank Inmarsat and Iridium for the technical presentation made. All possible options to address the issue of costs were examined, but that examination was initial. The WG did not manage to agree on any of them. There is future work to be done to reach a definitive solution to the issue of the costs derived from the recognition of services by new providers. We believe that the consideration of options to deal with costs should go in parallel and liked to the consideration of technical options to ensure interoperability.

Many Coastal States, through NAVAREA and METAREA coordination, provide services to the international community for the safety of navigation and the safety of human life at sea. We all agree that the recognition of new services contributes to higher maritime safety. However, IMO, when recognizing new services, cannot make their use mandatory without due consideration and resolution of the issue of costs of dissemination and monitoring of maritime safety information (MSI) and search and rescue (SAR) information. An approach based on NAVAREA and METAREA coordinators bearing the increase in costs cannot work well for maritime safety, which is what we are all concerned about. Just as some flag States and industry representatives have indicated their preference not to absorb those costs, I must highlight that some coastal States have indicated at this session and also previously that they might not be in a position to bear those costs and, therefore, to contract new services. On the other hand, such an approach it could, in the future, lead to some reluctance to recognize services by new satellite providers.

Therefore, Argentina must emphasize that, for an obligation to be truly viable, it is necessary not only to state it in a document, but also to duly address two aspects: 1) explore and identify technical solutions that can fully or partially resolve the increased costs through, for example, an interface (API), 2) consider and identify one or more options so that, at least, MSI and shore-to-ship SAR messages do not entail higher costs for NAVAREA and METAREA

coordinators. We reiterate our commitment as NAVAREA VI and METAREA VI coordinator, I would like to commit my delegation to actively participating in the deliberations at NCSR 9 and in this Committee to arrive at a definitive and lasting solution."

AGENDA ITEM 14

Statement by the observer from WSC

"Please allow me on behalf of WSC to express appreciation for the Committee's decision just now to approve the two draft MSC Circulars on CTU inspection programmes and voluntary guidance on pest contamination. We believe that the broadening of the scope of the guidelines for inspection programs to cover all CTUs irrespective of what they are declared to carry will assist in furthering our shared goal of enhancing container safety. We are also convinced that including inspection for visible pest contamination will prove useful for shared efforts to minimize pest contamination of containers and their cargoes.

In this latter regard, Madame Chair, you may recall that MSC 102 agreed to request the Secretariat to closely follow the work of IPPC and to participate as a member of its Sea Containers Task Force. The Secretariat has dutifully complied with that request, and – having also been a member of the Sea Containers Task Force – we are grateful to the Secretariat to its many pertinent, valuable and insightful contributions to the Task Force's deliberations. Last week, IPCC agreed on a new structure for its future activities regarding container cleanliness.

Please allow me therefore, Madame Chair, to respectfully propose for the Committee's consideration that the Secretariat be requested to continue to follow the work of the IPPC in regard to this matter that could have very significant implications for the flow of maritime containerized shipments."