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To: All IMO Members
Contracting Governments to the International Convention for the Safety of Life at Sea (SOLAS), 1974

Subject: **Amendments to the International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code)**

**Amendments to the International Code of Safety for Ships Using Gases or other Low flashpoint Fuels (IGF Code)**

1 The Maritime Safety Committee, at its 108th session (15 to 24 May 2024), approved draft amendments to:

.1 the International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code), as set out in annex 1; and

.2 the International Code of Safety for Ships Using Gases or other Low flashpoint Fuels (IGF Code), as set out in annex 2,

for circulation with a view to adoption at its 109th session, tentatively scheduled to take place from 2 to 6 December 2024.

2 The Secretary-General has the honour to transmit herewith, in accordance with article VIII(b)(i) of the SOLAS Convention, the text of the aforementioned proposed amendments for consideration with a view to adoption by the Committee at its 109th session, in accordance with article VIII(b)(iv) of the SOLAS Convention.

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# ANNEX 1

# DRAFT AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES IN BULK (IGC CODE)

## CHAPTER 16
## USE OF CARGO AS FUEL

1 Paragraph 16.9 is replaced by the following:

"**16.9 Alternative fuels and technologies**

16.9.1 If acceptable to the Administration, other cargo gases may be used as fuel, providing that the same level of safety as natural gas in this Code is ensured.

16.9.2 The use of cargoes requiring carriage in type 1G ships, as identified in column "c" in the table of chapter 19, shall not be permitted.

16.9.3 If acceptable to the Administration, the use of cargoes identified as toxic products in column "f" which are required to be carried in type 2G/2PG ships in column "c" in the table of chapter 19 may be used as fuel, provided that the same level of safety as natural gas (methane) is ensured in accordance with the relevant provisions of this Code, including those in 1.3, and taking into account the guidelines developed by the Organization*, after special consideration has been given by the Administration.

16.9.4 For cargoes other than LNG, the fuel supply system shall comply with the requirements of 16.4.1, 16.4.2, 16.4.3 and 16.5, as applicable, and shall include means for preventing condensation of vapour in the system.

16.9.5 Liquefied gas fuel supply systems shall comply with 16.4.5.

16.9.6 In addition to the requirements of 16.4.3.2, both ventilation inlet and outlet shall be located outside the machinery space. The inlet shall be in a non-hazardous area and the outlet shall be in a safe location."

* Refer to the guidelines to be developed by the Organization.

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# ANNEX 2

# DRAFT AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR SHIPS USING GASES OR OTHER LOW-FLASHPOINT FUELS (IGF CODE)

## PART A

### 2 General

### 2.2 Definitions

1 The following new paragraph 2.2.44 is added after existing paragraph 2.2.43:

"2.2.44 *Ship constructed on or after 1 January 2028* means:

.1 for which the building contract is placed on or after 1 January 2028; or

.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 2028; or

.3 the delivery of which is on or after 1 January 2032."

## PART A-1
## SPECIFIC REQUIREMENTS FOR SHIPS USING NATURAL GAS AS FUEL

### 5 Ship design and arrangement

### 5.3 Regulations – General

2 The following new paragraph is inserted after paragraph 5.3.3.5 and before paragraph 5.3.3.6:

"5.3.3.5.1 For vessels with suction wells installed in fuel tanks, the bottom of the suction well may protrude into the vertical extent of the minimum distance specified in 5.3.3.5, provided that such wells are as small as practicable and the protrusion below the inner bottom plating does not exceed 25% of the depth of the double bottom or 350 mm, whichever is less."

3 In sub-paragraph 5.3.4.2, the definition of "*H*" is replaced by the following:

"*H* is the distance from baseline, in metres, to the lowermost boundary of the fuel tank excluding the pump well, if installed;"

### 7 Material and general pipe design

### 7.3 Regulations for general pipe design

4 The following new paragraph is inserted after paragraph 7.3.1.3 and the subsequent paragraphs 7.3.1.4 and 7.3.1.5 are renumbered as 7.3.1.5 and 7.3.1.6 accordingly:

"7.3.1.4 For ships constructed on or after 1 January 2028, pressure relief valves discharging liquid or gas from the piping system shall discharge into the fuel tanks whenever the tank MARVS pressure is lower than the setting of the pressure relief valves in accordance with the arrangements in 9.4.2, and shall be designed to ensure that the required discharge capacity is met. Alternatively, they may discharge to the vent mast, if means are provided to detect and dispose of any liquid that may flow into the vent system."

**9 Fuel supply to consumers**

**9.4 Regulations on safety functions of gas supply system**

5 The following new paragraph is inserted after paragraph 9.4.1 and the subsequent paragraphs 9.4.2 to 9.4.10 are renumbered as 9.4.3 to 9.4.11 accordingly:

"9.4.2 For ships constructed on or after 1 January 2028, fuel tank inlets from safety relief valve discharge lines, protecting the piping system according to 7.3.1.4, shall be provided with non-return valves in lieu of valves that are automatically operated when the safety system required in 15.2.2 is activated. Safe means for tank isolation during maintenance shall be available according to 18.3 without affecting proper operation of safety relief valves."

**11 Fire safety**

**11.3 Regulations for fire protection**

6 In paragraph 11.3.2, after the last sentence ending with "considered a class 2.1 package.", the following new text is added:

"For ships constructed on or after 1 January 2028, any boundary facing the fuel tank on the open deck which is separated by a minimum distance, as determined to the satisfaction of the Administration through a heat analysis to provide protection equivalent to an A-60 class division, shall be considered acceptable. Intermediate structures providing heat protection to the above spaces may also be considered acceptable."

7 In paragraph 11.3.2, the following new sub-paragraphs are added:

".1 For oil tankers and chemical tankers constructed on or after 1 January 2028, A-60 insulation, required by SOLAS regulation II-2/9.2.4.2.5, shall be considered to meet the requirements of 11.3.2 provided that the fuel tank is located in the cargo area forward of accommodation spaces, service spaces, control stations, escape routes and machinery spaces. Consideration for the protection of accommodation block sides may be necessary.

.2 Fuel tanks shall be segregated from cargo in accordance with the requirements of the International Maritime Dangerous Goods (IMDG) Code where fuel tanks are regarded as bulk packaging. For the purposes of stowage and segregation requirements of the IMDG Code, a fuel tank on the open deck shall be considered as a class 2.1 package.

.3 For ships constructed on or after 1 January 2028 and notwithstanding the requirements of 11.3.2, where no source of gas release from the fuel containment system is considered possible, e.g. a type C tank in which tank connections are in a tank connection space, A-60 class shielding is not required."

8 Paragraph 11.3.3.1 is replaced by the following:

"11.3.3.1 Notwithstanding the last sentence in paragraph 11.3.3, for ships constructed on or after 1 January 2028 the fuel storage hold space may be considered as a cofferdam provided that:

.1 the type C tank is not located directly above machinery spaces of category A or other rooms with high fire risk; and

.2 the minimum distance to the A-60 boundary from the outer surface of the insulation system of a type C tank or the boundary of the tank connection space, if any, is not less than 900 mm. For the vacuum insulated type C tank, outer surface of the insulation system means outer surface of the outer shell."

## 12 Explosion prevention

### 12.5 Hazardous area zones

12.5.2 Hazardous area zone 1

9 Sub-paragraph 12.5.2.3 is replaced by the following:

".3 For ships constructed on or after 1 January 2028, areas on open deck, or semi-enclosed spaces on deck, within 3 m of any fuel tank outlet, gas or vapour outlet,* bunker manifold valve, other fuel valve, fuel pipe flange, ventilation outlets from zone 1 spaces and fuel tank openings for pressure release provided to permit the flow of small volumes of gas or vapour mixtures caused by thermal variation;

* Such areas are, for example, all areas within 3 m of fuel tank hatches, ullage openings or sounding pipes for fuel tanks located on open deck and gas vapour outlets."

10 The following new sub-paragraph is inserted after sub-paragraph 12.5.2.3 and the subsequent sub-paragraphs 12.5.2.4 to 12.5.2.9 are renumbered as 12.5.2.5 to 12.5.2.10 accordingly.

".4 for ships constructed on or after 1 January 2028, areas on open deck, or semi-enclosed spaces on open deck above and in the vicinity of fuel tank vent mast outlet within a vertical cylinder of unlimited height and 6 m radius centred upon the centre of the outlet, and within a hemisphere of 6 m radius below the outlet. Where due to the size and layout of the vessel it is not possible to maintain the above distances, a reduced zone can be accepted based on a dispersion analysis, based on 50% LEL criteria. The zone dimensions shall never be less than those given in 12.5.2.3, and shall include a surrounding zone 2 hazardous area meeting the dimensions given in 12.5.3.1."

12.5.3 Hazardous area zone 2

11 The following new paragraph is added after paragraph 12.5.3.2:

"12.5.3.3 In lieu of 12.5.3.1, for ships constructed on or after 1 January 2028, this zone includes spaces 4 m beyond the cylinder and 4 m beyond the hemisphere defined in 12.5.2.4".

**13 Ventilation**

**13.3 Regulations – General**

12 Paragraph 13.3.5 is replaced by the following:

"13.3.5 For ships constructed on or after 1 January 2028, air inlets for hazardous enclosed spaces shall be taken from areas that, except for the inlets, would be non-hazardous. Air inlets for non-hazardous enclosed spaces shall be taken from non-hazardous areas at least 1.5 m away from the boundaries of any hazardous area."

13 The following new paragraph is inserted after paragraph 13.3.7 and the subsequent paragraphs 13.3.8 to 13.3.10 are renumbered as 13.3.9 to 13.3.11:

"13.3.8 For ships constructed on or after 1 January 2028:

.1 where the ventilation ducts serving non-hazardous spaces pass through a hazardous space, the ducts shall be gas-tight and have overpressure relative to that hazardous space; and

.2 where the ventilation ducts serving hazardous spaces pass through less hazardous spaces, the ducts shall be gas-tight and have underpressure relative to less hazardous or non-hazardous spaces. Ventilation pipes serving hazardous spaces that pass through non-hazardous spaces, and that are fully welded and designed in accordance with chapter 7, are acceptable without the need for underpressure."