INTERNATIONAL MARITIME ORGANIZATION

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AMENDMENTS TO THE IGF CODE AND DEVELOPMENT OF GUIDELINES FOR LOW-FLASHPOINT FUELS

Proposed amendments to the IGF Code

Submitted by IACS

SUMMARY

Executive summary:	This document provides proposals for amendments to paragraph 6.7 and chapter 11 of Part A-1 of the IGF Code
Strategic direction, if applicable:	2
Output:	2.3
Action to be taken:	Paragraph 14
Related document:	CCC 3/15 (paragraph 10.33)

Introduction

1 The International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code), which was adopted by resolution MSC.391(95), provides an international standard for ships using low-flashpoint fuel, other than ships covered by the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code). Part A-1 of the IGF Code addresses specific requirements for ships using natural gas as fuel.

2 Based on the experience gained to date in the application of the IGF Code, this document provides proposed amendments to paragraph 6.7 and chapter 11 of part A-1 of the IGF Code.

Discussion

Paragraph 6.7.1.1 of part A-1 of the IGF Code

3 Paragraph 6.7.1.1 of the Code states:

> "All fuel storage tanks shall be provided with a pressure relief system appropriate to the design of the fuel containment system and the fuel being carried. Fuel storage hold spaces, **interbarrier spaces**, **tank connection spaces** and **tank cofferdams**, **which may be subject to pressures beyond their design capabilities**, shall also be provided with a suitable pressure relief system. Pressure control systems specified in 6.9 shall be independent of the pressure relief systems."

4 IACS understands that the original intention of this paragraph was to require for pressure relief systems to be fitted to fuel storage hold spaces, interbarrier spaces and tank connection spaces, since these are the spaces that may contain LNG leakage. The critical wording to determine whether this IGF Code requirement applies is "which may be subject to pressures beyond their design capabilities". If it is demonstrated that this is not the case, then no pressure relief system is required.

5 IACS notes that the term "tank cofferdams" is only used in paragraph 6.7.1.1 of the IGF Code. It is not used in paragraph 8.1 of the IGC Code upon which the paragraph in the IGF Code is based.

6 The cofferdams required by paragraph 11.3.3 of the IGF Code for fire protection purposes are not expected to be subject to leaks from fuel containment systems, as, when LNG fuel pipes are routed through such spaces, they are to be protected by a secondary enclosure, as required by paragraph 9.5.1 of the IGF Code.

7 It is noted that, for "interbarrier spaces", the requirement for a "suitable pressure relief system" in paragraph 6.7.1.1 of the IGF Code is also required according to paragraph 6.7.2.3 of this Code.

8 It is noted that for "tank connection spaces", the requirement for a "suitable pressure relief system" in paragraph 6.7.1.1 of the IGF Code is also required according to paragraph 6.3.7 of this Code, which requires these spaces to be designed for the maximum pressure in case of leakage or, alternatively, provided with a pressure relief system.

9 To remove the ambiguities in paragraph 6.7.1.1 of the IGF Code, IACS proposes the following amendments (modifications are shown with deleted text in ~~strikethrough~~ and new text in grey shading):

> "All fuel storage tanks shall be provided with a pressure relief system appropriate to the design of the fuel containment system and the fuel being carried. Fuel storage hold spaces, interbarrier spaces and tank connection spaces ~~and tank cofferdams~~, which may be subject to pressures beyond their design capabilities, shall also be provided with a suitable pressure relief system. Pressure control systems specified in 6.9 shall be independent of the pressure relief systems."

Paragraph 11.3.1 of part A-1 of the IGF Code

10 Paragraph 11.3.1 of the IGF Code states:

> "Any space containing equipment for the fuel preparation such as pumps, compressors, heat exchangers, vaporizers and pressure vessels **shall be regarded as a machinery space of category A for fire protection purposes**."

11 IACS questions whether the term "fire protection" in paragraph 11.3.1 of the IGF Code only refers to structural fire protection. IACS understands that fuel preparation rooms should have both structural fire protection and fire extinguishing systems in accordance with the provisions of SOLAS chapter II-2 for machinery spaces of category A.

12 The IGC Code includes the following requirement in paragraph 11.5.1 for fire extinguishing systems for spaces containing cargo handling equipment such as compressors and pumps:

> "Enclosed spaces meeting the criteria of cargo machinery spaces in 1.2.10, and the cargo motor room within the cargo area of any ship, shall be provided with a fixed fire-extinguishing system complying with the provisions of the FSS Code and taking into account the necessary concentrations/application rate required for extinguishing gas fires."

However, this requirement does not appear to have been included in the IGF Code.

13 IACS proposes to add a similar requirement to chapter 11 of the IGF Code. The proposed amendments are provided below (modifications are shown with deleted text in ~~strikethrough~~, and new text in grey shading):

> **"11.8 Regulation for fuel preparation room fire extinguishing systems**
>
> Fuel preparation rooms shall be provided with a fixed fire-extinguishing system complying with the provisions of the FSS Code and taking into account the necessary concentrations/application rate required for extinguishing gas fires."

Action requested of the Sub-Committee

14 The Sub-Committee is invited to consider the comments and analysis provided above, and, in particular, the proposals in paragraphs 9 and 13, and take action, as appropriate.

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