INTERNATIONAL MARITIME ORGANIZATION

E

SUB-COMMITTEE ON CARRIAGE OF CARGO AND CONTAINERS
9th session
Agenda item 3

CCC 9/3/8
28 July 2023
Original: ENGLISH
Pre-session public release: ☒

AMENDMENTS TO THE IGF CODE AND DEVELOPMENT OF GUIDELINES FOR ALTERNATIVE FUELS AND RELATED TECHNOLOGIES

Proposal to complement the proposed amendment of the IGF Code part A-1 clarifying the allowable depth of suction wells of an LNG fuel tank

Submitted by CESA

SUMMARY

Executive summary:	This document complements the proposal in document CCC 9/3/5 to amend the IGF Code part A-1 regarding the allowable depth of LNG fuel tank's suction wells intruding into ship's double bottom space.
Strategic direction, if applicable:	6
Output:	2.3
Action to be taken:	12
Related document:	CCC 9/3/5

Introduction

1 This document provides comments to the proposal in document CCC 9/3/5 (Republic of Korea et al) and is submitted in accordance with the provisions of paragraph 6.12.5 of the document on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.5).

2 The International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (hereinafter referred to as the IGF Code) was adopted as resolution MSC.391(95) to provide an international standard for ships using gaseous or low-flashpoint fuel, other than ships covered by the *I*nternational Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (hereinafter referred to as the IGC Code).

3 Part A-1 of the IGF Code addresses specific requirements for ships using natural gas as fuel with section 5 containing regulations for the ship design and arrangement of which section 5.3.3 specifies general requirements. Sections 5.3.3 and 5.3.4 of the IGF Code define

the required tank position with regard to damage protection of fuel tanks. Specifically, section 5.3.4 provides for an alternative calculation method which may be used instead of the specification in section 5.3.3.1.

Background

4 Document CCC 9/3/5 by the Republic of Korea proposes that the protection distance of an LNG fuel tank's suction well intruding into a ship's double bottom be established beneath paragraph 5.3.3.5 of part A-1 in the IGF Code. This would make that paragraph in line with the requirements of the IGC Code.

5 CESA supports the point of view that the IGF Code should be aligned with the IGC Code regarding minimum distance to the suction well.

Discussion

6 Section 5.3.3.5 of part A-1 in the IGF Code requires the minimum distance from lowermost boundary of LNG fuel tank to ship's bottom shell plating.

> ".5 The lowermost boundary of the fuel tank(s) shall be located above the minimum distance of B/15 or 2.0 m, whichever is less, measured from the moulded line of the bottom shell plating at the centreline."

7 With this regulation the minimum distance from the "boundary of the fuel tank", which is equal to the first barrier (tank shell (Type A, B, C tanks or first membrane for membrane tanks)), to the ship outer shell becomes 2 m for ships with a B larger than 30 m and B/15 for ships with smaller breadth.

8 In document CCC 9/3/5 by the Republic of Korea, it is proposed to exclude the (suction) well of membrane fuel tanks from this requirement by applying the same regulation as in IGC Code section 2.4.3. This section allows tank wells to be located within the minimum distance and limits the extend of this reduction to 25% or to 350 mm, whichever is less. For ships above B=30 m, this will be a minimum distance of 2 m- 0,35m=1,65 m.

9 CESA is of the view that the proposed wording of the revised 5.3.3.5 text should be applicable to all tank types and not only for membrane tanks.

10 Section 5.3.4 of the IGF Code provides an alternative calculation method to section 5.3.3.1, which may be used to determine the acceptable location of the fuel tanks. The other paragraphs under section 5.3.3, namely .2 to .8, are therefore also applicable when the alternative method under section 5.3.4 is applied.

Proposal

11 In light of the discussions in paragraph 6 to 9 above, CESA proposes a clarification to the text proposed in document CCC 9/3/5. The full text containing both the amendment proposed in document CCC 9/3/5 by the Republic of Korea and the proposal by CESA (underlined) would read as follows:

> "For vessels with suction wells installed in fuel tanks, the bottom of suction well may protrude into the vertical extent of 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. <u>The provisions in this paragraph also apply to designs in accordance with section 5.3.4."</u>

Action requested of the Sub-Committee

12 The Sub-Committee is invited to consider the proposal in paragraph 11 above, and take action as appropriate.