

SUB-COMMITTEE ON CARRIAGE OF
CARGOES AND CONTAINERS
5th session
Agenda item 8

CCC 5/8/2
28 June 2018
Original: ENGLISH

**UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY AND
ENVIRONMENT-RELATED CONVENTIONS**

Capacity of the emergency fire pump (paragraph 11.3.4 of the IGC Code)

Submitted by IACS

SUMMARY

Executive summary: This document seeks clarification on the implementation of paragraph 11.3.4 of the IGC Code, as amended by resolution MSC.370(93), with regards to the capacity of the emergency fire pump

Strategic direction, if applicable: 6

Output: 6.1

Action to be taken: Paragraph 8

Related documents: None

Introduction

1 Paragraph 11.3.4 (Water spray systems) of the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code), as amended by resolution MSC.370(93), states the following:

"11.3.4 The boundaries of superstructures and deckhouses normally manned, and lifeboats, liferafts and muster areas facing the cargo area, shall also be capable of being served by one of the fire pumps or the emergency fire pump, if a fire in one compartment could disable both fire pumps."

2 IACS members have considered the underlined element of the above mandatory provision and discussed its implementation with regard to the capacity of the emergency fire pump and the fire suppression systems for cooling, fire prevention and crew protection.

Discussion

3 In applying the first portion of paragraph 11.3.4 ("*The boundaries of superstructures and deckhouses normally manned, and lifeboats, liferafts and muster areas facing the cargo area*" – noting this text is the same as the 1993 edition of the IGC Code), the usual practice has been to protect the areas described with a water spray system for cooling, fire prevention and crew protection.

4 Having considered in detail the additional provisions of the IGC Code, as amended by resolution MSC.370(93), "*shall also be capable of being served by one of the fire pumps or the emergency fire pump, if a fire in one compartment could disable both fire pumps*", IACS members understand several interpretation scenarios in relation to this text may be possible, i.e.:

.1 Case 1: If the main fire pump supplying the water spray system (for covering the superstructures and deckhouses) is disabled due to a fire in the engine room, then an understanding of regulation 11.3.4 would be that the emergency fire pump could be sized to cover:

- .1 the water spray system for the boundaries of the superstructures and deckhouses, and lifeboats, liferafts and muster areas facing the cargo area, (as per paragraph 11.3.4); and
- .2 2 fire hydrants as per paragraph 11.2 of the IGC Code;

.2 Case 2: If the ship is also fitted with a total flooding high expansion foam system protecting the engine room, the emergency fire pump could also be sized to cover the two systems in .1 above, and the foam system for dealing with an engine room fire, when the main fire pump is disabled; or

.3 Case 3: Considering that simultaneous operation of both the foam and water spray systems would be unrealistic due to the principle of dealing with one single incident at a time¹ (which for this case would be extinguishing the engine room fire using the foam system), it may be concluded that the emergency fire pump would not need to be sized to cover all three systems in .1 and .2 above (i.e. water spray, hydrants and foam) and would be sized to cover only the most demanding area and required systems, as follows:

- .1 the foam system + 2 hydrants; or
- .2 the water spray system + 2 hydrants;

whichever is greater.

5 IACS considers that the above discussion highlights the need for clarification with a view to facilitating the global and consistent implementation of paragraph 11.3.4 of the IGC Code, as amended by resolution MSC.370(93).

¹ According to the requirements in SOLAS and the FSS Code, where a fire extinguishing system, such as a main sea water fire pump, fixed CO2 system etc. is provided for extinguishing more than one space on board a ship, the maximum capacity of such a fire extinguishing system need not be more than the largest capacity required for any one space so protected. This principle is based on the assumption that fire incidents will not occur simultaneously in more than one space that is protected by the fire extinguishing system.

IACS Views

6 Based on the three cases presented in paragraph 4 above, IACS considers that the proposed interpretations under Case 1 and Case 2 are acceptable. However, the view of the Sub-Committee is sought as to whether Case 3 (e.g. sizing the pump for the most demanding area and dealing with one single incident at a time) is an acceptable interpretation of paragraph 11.3.4 of the IGC Code.

7 Depending upon the understanding reached by the Sub-Committee, IACS is prepared to draft a unified interpretation on the issue, with a view to submitting it for consideration at the Sub-Committee's next session.

Action requested of the Sub-Committee

8 The Sub-Committee is invited to consider the comments provided in paragraphs 3 to 5 above, the IACS views in paragraph 6 above and the proposal made in paragraph 7 above, and take action, as appropriate.
