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

**Draft unified interpretation regarding the onboard discharge test of a dry chemical
powder fire-extinguishing system (paragraph 11.4.8 of the IGC Code)**

Submitted by IACS

SUMMARY

Executive summary: This document provides a draft unified interpretation regarding the onboard discharge test of a dry chemical powder fire-extinguishing system, as required by paragraph 11.4.8 of the IGC Code; with a view to facilitating the global and consistent implementation of these mandatory requirements in a practical manner

Strategic direction: 6

High-level action:

Output: 6.1

Action to be taken: Paragraph 8

Related documents: None

Introduction

1 Paragraph 11.4.8 of the IGC Code, as amended by resolution MSC.370(93), states:

"11.4.8 After installation, the pipes, valves, fittings and assembled systems shall be subjected to a tightness test and functional testing of the remote and local release stations. The initial testing shall also include a discharge of sufficient amounts of dry chemical powder to verify that the system is in proper working order. All distribution piping shall be blown through with dry air to ensure that the piping is free of obstructions."

2 While it is understood that the onboard discharge of "sufficient amounts of dry chemical powder" is required by the IGC Code, IACS is aware of concerns raised by

shipbuilders/manufacturers about the practical difficulties associated with the actual discharge of dry chemical powder on board, including:

- .1 the difficulty to completely prevent powder splash into the marine environment, despite the efforts of those conducting the test;
- .2 the negative effect on the marine environment, in particular, fisheries, as well as the working environment, as a result of the discharge of this chemical powder; and
- .3 the difficulty to meet the ship's contracted delivery date due to the preparations necessary for undertaking this large-scale test, the subsequent clean-up and the possibility of hampering the painting process.

3 In this regard, IACS believes that it is necessary to produce a unified interpretation to address the practical difficulties that are encountered.

Discussion

4 With the IGC Code clearly requiring "a discharge of sufficient amounts of dry chemical powder", IACS understands that the actual onboard test has to be conducted. However, IACS considers that the scope of the functional test could be clarified taking into account the following comments and observations, which would enable the confirmation of the effectiveness of the piping installation on board without imposing unnecessary practical burdens:

- .1 the intention of the onboard discharge test required in paragraph 11.4.8 of the IGC Code is to check the effectiveness of the piping installation on board, and not to see the discharge of the whole amount of the dry chemical powder. In this regard, the onboard gas-tight integrity tests and air-blow tests confirm the effectiveness of the piping installation; and
- .2 fixed dry chemical powder fire-extinguishing systems are approved in accordance with the *Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk* (MSC.1/Circ.1315). Paragraphs 1, 3 and 4 of the appendix to the Guidelines confirm the capability of monitors and hoses to discharge powder, and paragraph 2 stipulates that the test should be conducted with the maximum length and height of the fittings to be used on board.

5 Taking into account paragraphs 4.1 and 4.2 above, IACS considers that the effectiveness of the piping installation on board can be fully verified without discharging all the powder from all the monitors and hoses, as long as it is confirmed that the powder is discharged properly from the most onerously located monitor(s) and hose(s), as per paragraph 2 of the appendix to the above-mentioned Guidelines.

6 Taking the above into consideration, IACS has drafted a unified interpretation, as set out in the annex, to specify the scope of the functional test so that the practical difficulties would be mitigated without compromising the level of safety intended by the provisions in the IGC Code.

Action requested of the Sub-Committee

7 The Sub-Committee is invited to consider the foregoing and the unified interpretation set out in the annex and to take action as appropriate.

ANNEX

DRAFT UNIFIED INTERPRETATION OF PARAGRAPH 11.4.8 OF THE IGC CODE

ONBOARD DISCHARGE TEST OF DRY CHEMICAL POWDER

Paragraph 11.4.8 of the IGC Code (as amended by resolution MSC.370(93))

"After installation, the pipes, valves, fittings and assembled systems shall be subjected to a tightness test and functional testing of the remote and local release stations. The initial testing shall also include a discharge of sufficient amounts of dry chemical powder to verify that the system is in proper working order..."

Interpretation

Testing arrangements such as, but not limited to, the discharge from one monitor and one hand hose line, may be accepted instead of discharging dry chemical powder from all the monitors and hose line(s) on board, if it is verified that dry chemical powder is discharged properly from at least one monitor and one hand hose line arranged in the most onerous location.
