INTERNATIONAL MARITIME ORGANIZATION

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

Draft unified interpretation of the footnote to SOLAS regulation II-2/9.7.5, as amended by resolution MSC.365(93)

Submitted by IACS

SUMMARY

Executive summary:	The annex to this document provides a copy of a draft unified interpretation (UI) of the footnote to SOLAS regulation II-2/9.7.5, as amended by MSC.365(93)
Strategic direction, if applicable:	6
Output:	6.1
Action to be taken:	Paragraph 11
Related documents:	None

Introduction

1 SOLAS regulation II-2/9.7.5, as amended by resolution MSC.365(93), states:

"**7.5.1 Requirements for passenger ships carrying more than 36 passengers**

7.5.1.1 In addition to the requirements in sections 7.1, 7.2 and 7.3, exhaust ducts from galley ranges shall be constructed in accordance with paragraphs 7.2.4.2.1 and 7.2.4.2.2 and insulated to "A-60" class standard throughout accommodation spaces, service spaces, or control stations they pass through. They shall also be fitted with:

…

.3 a fixed means for extinguishing a fire within the duct*;

…"

"**7.5.2 Requirements for cargo ships and passenger ships carrying not more than 36 passengers**

When passing through accommodation spaces or spaces containing combustible materials, the exhaust ducts from galley ranges shall be constructed in accordance with paragraphs 7.2.4.1.1 and 7.2.4.1.2. Each exhaust duct shall be fitted with:

…

.4 fixed means for extinguishing a fire within the duct*"

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* Refer to the recommendations published by the International Organization for Standardization, in particular publication ISO 15371:2009, Ships and marine technology – Fire-extinguishing systems for protection of galley cooking equipment.

2 In ISO 15371:2009 "Ships and marine technology – Fire-extinguishing systems for protection of galley cooking equipment", it is stated, inter alia:

"**1 Scope**

This International Standard applies to the design, testing, and operation of pre-engineered fire extinguishing systems to protect the galley hoods, ducts, fryers and other grease-laden appliances.

…

2.29 A pre-engineered system is a system tested in accordance with the limitations prescribed by the manufacturer for the maximum and minimum pipe lengths, accessories, number of fittings, number and types of nozzles, nozzle placement, types of fire risk and the maximum dimensions, volumes and areas of the appliances, hoods and ducts to be protected."

Discussion

3 The use of carbon dioxide fire-extinguishing systems for the protection of enclosed spaces is foreseen by SOLAS chapter II-2 and the FSS Code for the following spaces:

.1 cargo spaces (SOLAS regulations II-2/10.7.1 and II-2/10.7.2);

.2 machinery spaces (SOLAS regulation II-2/10.4.1.1 and the FSS Code, chapter 5);

.3 cargo pump rooms in tankers (SOLAS regulation II-2/10.9.1.1); and

.4 stores containing flammable liquids (SOLAS regulation II-2/10.6.3.1.1).

4 However, carbon dioxide has been, and still is, among the most common fire-extinguishing medium used to protect the exhaust ducts of galley ranges.

5 According to the requirements listed in paragraph 3 above, SOLAS or the FSS Code prescribe a minimum required quantity of CO_2 to protect spaces. However, no specific requirements are given for a minimum quantity required for the protection of galley exhaust ducts.

6 Additionally, the ISO standard referenced in the footnote to SOLAS regulation II-2/9.7.5 is only applicable to pre-engineered systems. However, CO_2 systems are not pre-engineered, as defined by the standard.

7 In considering the footnote to SOLAS regulation II-2/9.7.5, IACS understands that ISO 15371 is given as an example of a suitable performance standard for the galley duct fixed fire-extinguishing system. Other applicable standards may be used, too.

8 IACS members discussed whether the footnote prohibited CO_2 systems from being used as a fixed means of extinguishing a fire within galley range exhaust ducts and concluded that the footnote did not prohibit the use of CO_2 systems from being used in such situations. IACS also concluded that the CO_2 system did not have to be approved to ISO 15371, as this standard was only applicable to pre-engineered systems, which CO_2 systems were not.

9 IACS considers that an appropriate requirement for the quantity of CO_2 to be provided for fixed fire-extinguishing systems protecting galley cooking equipment is contained in SOLAS regulation II-2/10.6.3.1.1 regarding stores containing flammable liquids.

10 Based on the discussion in paragraphs 3 to 9 above, IACS has developed a draft UI, a copy of which is provided in the annex to this document. The intent of this draft UI is to clarify that the footnote to SOLAS regulation II-2/9.7.5 does not prohibit the use of fixed CO_2 fire-extinguishing systems that have not been designed or tested to ISO 15371.

Action requested of the Sub-Committee

11 The Sub-Committee is invited to consider the foregoing and the draft UI, as set out in the annex and decide, as appropriate.

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ANNEX

DRAFT UNIFIED INTERPRETATION OF FOOTNOTE TO SOLAS REGULATION II-2/9.7.5

Interpretation

The reference to ISO 15371:2009 in the footnote to both SOLAS regulations II-2/9.7.5.1.1.3 and II-2/9.7.5.2.4 is given as an example of a suitable performance standard for pre-engineered galley duct fixed fire-extinguishing systems.

CO_2 fire-extinguishing systems, which are not pre-engineered fixed fire-extinguishing systems, should be designed according to the requirements set out in SOLAS regulation II-2/10.6.3.1.1 (spaces containing flammable liquids) or another suitable standard acceptable to the Administration.