INTERNATIONAL MARITIME ORGANIZATION

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SUB-COMMITTEE ON FIRE PROTECTION
52th session
Agenda item 6

FP 54/6/2
5 February 2010
Original: ENGLISH

MEASURES TO PREVENT EXPLOSIONS ON OIL AND CHEMICAL TANKERS TRANSPORTING LOW-FLASH POINT CARGOES

Draft amendments to SOLAS regulation II-2/4.5.5

Submitted by Norway and Oil Companies International Marine Forum (OCIMF)

SUMMARY

Executive summary:	This document proposes amendments to SOLAS regulation II-2/4.5.5 to include requirements for inerting of tanks on new tankers carrying low-flash point cargoes
Strategic direction:	5.2
High-level action:	5.2.3
Planned output:	5.2.3.15
Action to be taken:	Paragraph 12
Related documents:	FP 53/5/3 and FP 53/23, section 5

Background

1 The Maritime Safety Committee, at its eighty-third session, included in the Sub-Committee's work programme and the provisional agenda for FP 52, a high-priority item on "Measures to prevent explosions on oil and chemical tankers transporting low-flash point cargoes". MSC 83 also agreed that, under the aforementioned work programme item, the Sub-Committee should first consider measures for new ships, taking into account the different operational demands on chemical tankers and the need that essential data is submitted and considered first and, depending on the outcome of their consideration, the Committee would then consider the extension of the item towards appropriate measures for existing oil and chemical tankers transporting low-flash point cargoes.

2 At its fifty-second session, the Sub-Committee discussed a proposal from Norway to include requirements for the inerting of tanks on new tankers carrying low-flash point cargoes. After a lengthy discussion, it was agreed that more information was needed and Member Governments and international organizations were urged to submit essential data on the subject to FP 53 for consideration and action, as appropriate.

3 At its fifty-third session, the Sub-Committee agreed that the fitting of appropriate inert gas systems (IGS) in new oil tankers of less than 20,000 tonnes deadweight and to new chemical tankers carrying low-flash point cargoes would minimize the risk of fires and explosions with tank entries.

4 Furthermore, the Sub-Committee noted that the majority of the members of the working group had agreed that a lower size limit should be set for new oil tankers to which the IGS requirement would apply, and had also felt that it may be appropriate to apply the same size limit to chemical tankers, but that, however, other delegations had been of the view that any new requirements should not be subject to a size limit.

5 The Sub-Committee also noted that views in the working group had been divided on which deadweight value the cut-off (size limit) should be set, taking into account the two FSA studies by Japan and Norway, and that some delegations had been proposing a lower limit of [4,000,] [6,000] or [8,000] tonnes deadweight. Noting that the group had not reached agreement in the matter, the Sub-Committee agreed that the lower size limit, if any for new tankers, to which the requirement of fitting IGS would apply, needed to be further considered.

Discussion and proposal

6 The submitters of this document, having further considered this issue and supporting the views of the FP Sub-Committee that the fitting of appropriate inert gas systems (IGS) to new oil tankers of less than 20,000 tonnes deadweight and new chemical tankers carrying low-flash point cargoes would minimize the risk of fires and explosions, maintain their belief that the requirements for inerting of cargo tanks carrying low-flashpoint cargoes should apply to all tankers of 500 gross tons and above.

7 As stated earlier, and as shown through the Norwegian FSA study submitted to the Sub-Committee (FP 53), the inerting of tanks carrying low-flash point cargoes will minimize the risk of fires and explosions. Furthermore, considering the severity of the consequences of fires and explosions, all personnel serving on board tankers carrying low-flash point cargoes will benefit from the reduction of risk that the provision of IG as a safety measure will provide. This should be regardless of the age or size of the ship or the size of the tanks.

8 The submitters are also of the firm belief that having the same regulations applied to all ships carrying low-flashpoint cargoes together with improved training and knowledge of the Revision of the Recommendations for entering enclosed spaces aboard ships (as is currently being considered by the FP and DSC Sub-Committees) will, not only minimize the risk of fires and explosions, but will also minimize the risk associated with entering enclosed spaces. However, we regrettably recognize that for the moment, only new tankers are considered.

9 Although we support the inclusion into SOLAS of requirements for inert gas systems to be installed on all new oil and chemical tankers, we recognize that some members have raised concerns regarding the availability of space and the restrictions on the availability of power on board and their effect on efficient port operations particularly with regard to small chemical tankers. In order to address these concerns, we propose the following:

> All new oil and chemical tankers smaller than 4,000 tonnes deadweight may, instead of having inert gas systems fitted on board, apply inert gas provided by shore installation.

We believe that, in accepting this provision, small new oil and chemical tankers will benefit from a reduction of the risk of fires and explosions at a lesser cost than what has been anticipated in the FSA.

10 As has been highlighted by other members and organizations and has also been highlighted in the FSA study – no explosions have been known to have occurred during the loading phase of the carriage of low-flashpoint cargoes. Hence, we propose the following:

> Inert gas on chemical tankers (regardless of size) can, under certain conditions, be applied after the low-flash point cargoes have been loaded.

We believe that in accepting these provisions, we have met some of the concerns raised regarding maintaining efficient port operation.

11 Based on the discussion above, the submitters have developed draft amendments to SOLAS regulation II-2/4.5.5, as set out in the annex.

Action requested of the Sub-Committee

12 The Sub-Committee is invited to consider the draft amendments, as set out in the annex, and take action as deemed appropriate.

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ANNEX

PROPOSED AMENDMENTS TO SOLAS REGULATION II-2/4

(New text underlined)

Regulation 4

5.5 Inert gas system

5.5.1 ***Application***

5.5.1.1 For tankers built on or after [dd.mm.yyyy] of 4,000 tonnes deadweight and upwards and for tankers of 20,000 tonnes deadweight and upwards built prior to [dd.mm,yyyy], the protection of the cargo tanks shall be achieved by a fixed inert gas system …….(remaining text unchanged)

5.5.1.1 bis For tankers built on or after [dd.mm.yyyy] of less than 4,000 tonnes deadweight, the protection of the cargo tanks may be achieved by application of inert gas either by fixed installation on board or shore supply as an alternative to fixed installation on board. In case of shore supply, ships must have onboard capability to maintain a positive pressure throughout the sea voyage.

5.5.1.2 No changes

5.5.1.3 No changes

5.5.2 ***Inert gas systems of chemical tankers and gas carriers***

Add a new subparagraph and renumber the subsequent ones accordingly, as follows:

5.5.2.1 For chemical tankers and gas carriers built on or after [dd.mm.yyyy] when carrying [low-flash point] [flammable] cargoes from the list of products in chapters 17 and 18 of the IBC Code or in annexes 1-4 of the MEPC.2/Circulars, the application of inert gas may take place after the tank has been loaded but before the ship leaves the berth of loading or in the event of loading at anchorage, before the ship leaves the anchorage position. Only nitrogen is acceptable as inert gas under this provision.

5.5.2.2 The requirements for inert gas systems contained in the Fire Safety Systems Code need not be applied to:

.1 No changes

.2 Chemical tankers and gas carriers built prior to [dd.mm.yyyy] when carrying flammable cargoes other than ……..(remaining text unchanged)