

MARITIME SAFETY COMMITTEE  
101st session  
Agenda item 8

MSC 101/8/2  
16 April 2019  
Original: ENGLISH

Pre-session public release:

**DEVELOPMENT OF FURTHER MEASURES TO ENHANCE THE SAFETY OF SHIPS  
RELATING TO THE USE OF FUEL OIL**

**Comments on document MSC 101/8**

**Submitted by ICS, INTERTANKO, INTERCARGO and IPTA**

**SUMMARY**

*Executive summary:* This document provides information on problems encountered with fuel oils used on board ships and proposes consideration of possible means to address safety issues related to the supply of fuel oils not compliant with the flash point requirements as provided in regulation 4.2.1 of SOLAS chapter II-2

*Strategic direction, if applicable:* 1

*Output:* 1.29

*Action to be taken:* Paragraph 18

*Related documents:* ISWG-AP 1/2/12; MEPC 62/4/4; MSC 100/20; MSC 101/8; MEPC 74/5/20 and MEPC 74/10/13

**Introduction**

1 This document 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.1) and comments on the document MSC 101/8.

**Background**

2 MSC 100 recognized that maritime safety was its primary responsibility and this included fuel safety issues and acknowledged that urgent actions were required to address the safety implications associated with the use of low-sulphur fuel oil, but that long-term solutions to enhance the safety of ships relating to the use of fuel oil were also needed (paragraph 8.10 of MSC 100/20). The Committee therefore agreed to include in its biennial agenda an output

on "Development of further measures to enhance the safety of ships relating to the use of fuel oil", with a target completion year of 2021 and an associated scope of work as follows (paragraph 8.13 of MSC 100/20):

"Based on the review of existing safety provisions for fuel oil and information concerning the safety implications associated with the use of fuel oil, develop further measures to enhance the safety of ships relating to the use of fuel oil."

3 MSC 100 also agreed to include the above-mentioned new output in the agenda for MSC 101 and invited interested Member States and international organizations to submit concrete proposals under the new output to that session (paragraph 8.14 of MSC 100/20).

4 Document MSC 101/8 (IACS) proposes a method of work and items to be taken into account when developing measures to enhance the safety of ships relating to the use of fuel oil. Paragraph 7 of the document urges relevant parties to provide information on problems encountered with fuel oils used on board ships.

5 Paragraph 6 of document MSC 101/8 highlights that issues related to certain parameters of fuel oil, such as flash point of fuel oil cannot be solved by onboard equipment and need to be addressed in the fuel oil supply chain. Paragraph 10 of the submission proposes steps for a structured approach to be adopted in order to justify the need to take regulatory action.

## **Discussion**

6 Fuel oil safety problems are in fact endemic and have occurred every two or three years in the past. To provide a recent example, several vessels were reported to have experienced fuel pump sticking, sludging of separators, corroded fuel pumps and filter clogging after bunkering in Houston in March 2018 (paragraph 9.3 of the annex to ISWG-AP 1/2/12 (Liberia et al.)). The problems reported in this instance were all related to Heavy Fuel Oils (HFOs), the maximum allowable sulphur content of which was 3.50% m/m. However, it clearly demonstrated the need to have robust regulatory framework on control of quality of fuel oil delivered to ships meeting the mandatory required standards.

7 The reported cases are under the condition of information confidentiality until all disputes have been settled. Consequently, this paragraph aims to provide accurate, but generalized, information whilst respecting this information confidentiality. The reported cases represented an incident or a near miss situation that had resulted in varying amounts of damage to machinery systems. According to reports available to us, none of the cases escalated to a dangerous situation where the sequence of events could have led to an accident had they not been interrupted. However, that was down to pure luck. At the initial stage of such a fuel oil related machinery failure incident, it takes time for ship crew to understand the cause and take appropriate actions to minimize the imminent risks. In some cases, the ships may have experienced main engine failure which could have resulted in a serious accident. In some other reported cases, ships had to de-bunker the fuel oil that had caused the ship's machinery systems to fail. These kinds of fuel oil contamination cases attract public attention and causes anxiety to the ships involved, however, due to a lack of clarity about regulatory obligations under SOLAS and MARPOL, ship operators are left with the daunting task of having to manage these serious situations on their own.

8 Even though the root causes of these fuel contamination cases are still unknown, the industry and its regulators should learn a lesson and find a way to prevent the same from re-occurring. As a first step, a review of the regulatory framework is necessary for all fuel oil parameters.

9 Documented reports of similar serious incidents related to poor quality of bunkers that exposed ships and crew to unsafe situations have been submitted to the IMO in the past. For example, document MEPC 62/4/4 (Norway and INTERTANKO) provided the number and details of ships involved in each event together with details of the event and problems encountered by the ships as a result of bunkering these fuels.

10 Fuel safety is addressed in SOLAS chapter II-2 and regulation 18 of MARPOL Annex VI. If satisfactorily applied, these provisions would ensure that fuel supplied to ships is safe to use. While regulation 18 of MARPOL Annex VI specifies requirements regarding other aspects of fuel oil safety, provisions related specifically to the minimum flash point requirement for marine fuel oil are contained in regulation 4.2.1 of SOLAS chapter II-2.

11 Regulation 18.9.6 of MARPOL Annex VI requires Parties to MARPOL Annex VI to inform the Organization for transmission to Parties and Member States of the Organization of all cases where fuel oil suppliers have failed to meet the requirements specified in regulations 14 or 18 of the Annex.

12 The IMO Global Integrated Shipping Information System (GISIS) contains a module on MARPOL Annex VI that addresses notifications communicated under the provisions of the Annex. Presently some Parties voluntarily utilize this module to report instances of fuels being found non-compliant with the minimum flash point requirements as per regulation 4.2.1 of SOLAS chapter II-2.

13 The co-sponsors consider the supply of low flash point fuels to be a serious breach in the safety provisions on board ships that have been provided with these off-spec fuels. It is therefore imperative that these instances are reported to the organization. In this regard the co-sponsors had co-sponsored the submission MEPC 74/5/20 that inter alia proposed specifying fuel oil flash point as one of the parameters to be reported for the data collection and analysis plan. Notwithstanding this, the co-sponsors recognize that there exists no mandatory requirement under SOLAS or MARPOL for reporting such occurrences. Additionally, the existing MARPOL Annex VI module might have to be renamed to include the specific provision regarding flashpoint in SOLAS chapter II-2.

14 Furthermore, regulation 18.9.4 of MARPOL Annex VI requires Parties to MARPOL Annex VI to take action as appropriate against fuel oil suppliers that have been found to deliver fuel oil that does not comply with that stated on the bunker delivery note (BDN). Appendix V of MARPOL Annex VI contains the information to be included in the BDN. As it currently exists, flash point is not included in the list of parameters to be informed in the BDN.

15 The co-sponsors consider that the actions mentioned in paragraph 14 should also be unequivocally applicable to cases where the supply of low flashpoint fuels have been identified.

16 ICS and INTERTANKO had submitted MEPC 74/10/13 that proposed to address the need for clarifications in case of discrepancy on fuel oil compliance between data on the bunker delivery note (BDN) and test results on fuel oil samples taken during fuel oil delivery. During the development of document MEPC 74/10/13, the co-sponsors had considered including instances where the flash point of the fuel provided was found to be below that required by SOLAS. However, it was recognized that since the issue was specifically related to a SOLAS instrument it would be better addressed by the Maritime Safety Committee.

**Proposals**

17 Based on the discussions provided in paragraphs 10 to 16, the co-sponsors propose the following for consideration by the Committee:

- .1 Utilize the structured approach as proposed in paragraph 10 of document MSC 101/8 and consider amending SOLAS chapter II-2 in order to address the issues discussed in paragraph 13 of this submission. The amendment would require Parties to report all cases where fuel oil suppliers have failed to meet the requirements specified in regulation 4.2.1 of SOLAS chapter II-2.
- .2 Utilize the structured approach as proposed in paragraph 10 of MSC 101/8 and consider amending SOLAS chapter II-2 in order to address the issues discussed in paragraph 14 of this submission. The amendment would require Parties to take action as appropriate against fuel oil suppliers that have been found to deliver fuel oil that does not comply with the minimum flashpoint requirements.
- .3 Consider allocating a specific platform on GISIS for reporting instances where fuel oil not complying with the relevant flashpoint requirements have been supplied. This should be done in consultation with MEPC based on the decisions made on document MEPC 74/5/20.
- .4 Consider developing guidelines for ships to address situations where the BDN for a supplied fuel oil shows flash point complaint with regulation 4.2.1 of SOLAS chapter II-2, but the master has independent test results of the fuel sample taken by the ship during the bunkering which indicate non-compliance.

**Action requested of the Committee**

18 The Committee is invited to note the information provided in paragraphs 6 to 16, consider the proposals in paragraph 17 and take action, as appropriate.

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