



MARINE ENVIRONMENT PROTECTION
COMMITTEE
58th session
Agenda item 10

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REPORTS OF SUB-COMMITTEES

Amendments to the Oil Record Book, Part I and Concern over the Heating of Sludge to above its Flashpoint

Submitted by the Republic of the Marshall Islands, the International Association of Independent Tanker Owners (INTERTANKO), the International Chamber of Shipping (ICS) and the Oil Companies International Maritime Forum (OCIMF)

SUMMARY

<i>Executive summary:</i>	This submission comments on the outcome of the 51st session of the Design and Equipment Sub-Committee with regard to amendments to Oil Record Book coding and revision of MEPC.1/Circ.511
<i>Strategic direction:</i>	2
<i>High-level action:</i>	2.1.1
<i>Planned output:</i>	2.1.1.1
<i>Action to be taken:</i>	See paragraph 13
<i>Related documents:</i>	MEPC 58/10/1; DE 51/18/1, DE 51/WP.3, DE 51/28; MARPOL 73/78 Annex I, regulation 12, UI 17.1

Introduction

1 MEPC 58/10/1 reports matters of relevance to the work of the Committee resulting from DE 51 and lists action requested of the Committee. The Marshall Islands Administration has particular concern over the following action items (paragraph references are to DE 58/28):

- “.6 approve draft amendments to the Supplement to the Oil Record Book Parts I and II with a view to subsequent adoption (paragraph 18.16.5 and annex 9);
- .9 note that the Sub-Committee has requested the FP Sub-Committee to consider the issue of safety issues associated with the heating of oil residue (sludge) to a level likely to be above its flashpoint as a method to reduce its water content, and provide advice to the MEPC accordingly (paragraph 18.16.8);”

Background

2 The report of the Correspondence Group to DE 51 on Review of MEPC.1/Circ.511 and Relevant MARPOL Annex I and Annex VI Requirements, DE 51/18/1, paragraph 22, included a recommendation that the Oil Record Book (ORB), Part I, be amended to include the following wording under Code I, Additional operational procedures and general remarks, as follows:

Paragraph 22: “A new Code (I) 29 is proposed, its purpose being to record the reduction of oil residue (sludge) by heating, “evaporated water”. In the last round of comments it was proposed that reduction by heating should be recorded under Code (C) as it is a form of disposal. However, this has not been discussed in the group.”

The exact proposed wording in annex 4 of the report was:

(I) Additional operational procedures and general remarks

27 *Transfer of oil residue (sludge) between oil residue holding tanks⁷.*

28 *Transfer of bilge water into and between bilge water holding tank⁸.*

29 ***Heating of oil residue (sludge) tanks, incinerator feed tank resulting in reduction of oily waste quantity:***

.1 State quantity reduced, final quantity.

30 *Any other additional operational procedures.*

7 *Tanks listed in item 3.1 of forms A and B of the Supplement in the IOPP Certificate used for sludge.*

8 *Tanks listed in item 3.3 of forms A and B of the Supplement in the IOPP Certificate used for bilge water.*

3 The issue was referred to the DE 51 Working Group on review of MEPC.1/Circ.511 and relevant MARPOL Annex I and Annex VI requirements. The report of the Working Group included the following text in paragraphs 21 and 29 concerning amendments to the ORB and MEPC.1/Circ.511:

Draft amendments to the ORB

21 The group considered the proposal by the correspondence group to use Section (I) of the ORB Part I to reflect transfer of oil residue (sludge) between oil residue (sludge) tanks and oily bilge water between oily bilge water holding tanks. The group, however, found it more appropriate to insert those transfer operations in sections (C), (D) and (E).

Draft amendments to MEPC.1/Circ.511

29 There was some discussion on the evaporation of water by heating the oil residue (sludge) to a level which is likely to be above its flashpoint. The group agreed that clarification and guidance should be sought from the appropriate sub-committees, in order to ascertain safe and environmentally sound operating conditions for this method of disposal.

4 As noted above, during the course of the Working Group, the transfers of (I) 27 and 28 noted in paragraph 21 of the report were made. Although not directly addressed under ORB amendments, (I) 29 was deleted due to the concern over the safety of the heating of sludge to above its flashpoint to evaporate water addressed in paragraph 29.

5 The Sub-Committee concurred with the Working Group’s report as noted in DE 51/21, paragraph 18.16, and has requested the action of this Committee as noted in paragraph 1.

Discussion re: ORB Amendments

6 The Marshall Islands Administration, as a member of the Correspondence Group on the Review of MEPC.1/Circ.511 and Relevant MARPOL Annex I and Annex VI Requirements, originally proposed the inclusion of guidance in the ORB, Part I, Code I, concerning the recording of reduction of oily waste volume due to heating and evaporation of water. This proposal was based upon Administration experience that this common practice was not always being consistently recorded in ships' ORBs, and, consequently, some reduction of oily waste volume might not be properly accounted for. This omission could lead to serious consequences for companies and seafarers when such errors or omissions were discovered by flag State and port State examinations. Accordingly, including the need to record this procedure in the ORB coding guidance would assist mariners in maintaining the ORB properly.

7 The Report of the Correspondence Group noted that there were other opinions that evaporation of water from oil residue (sludge) by heating should be recorded under Code C, as a disposal rather than an additional operation, but that this was not discussed by the Correspondence Group. The Marshall Islands would be satisfied with either approach and views the important point to be simply that guidance be provided for a consistent approach and to remind mariners of the need for any reduction of oily waste volume to be properly documented in the ORB.

Discussion re: Safety of Heating Oil Residue (Sludge)

8 The concern over the safety of heating oil residue (sludge) to a temperature likely to be above its flashpoint developed during discussion in the DE 51 Working Group. The exact basis for the concern over heating oil residue (sludge) above its flashpoint and exactly what is being asked of the FP Sub-Committee is not clear in the DE 51 Working Group or Sub-Committee reports. Is the concern directed solely to incinerator service tanks or does it also include sludge holding/storage tanks or other fuel oil system components?

9 The heating of oil residue (sludge) is a common, necessary and recognized practice managing fuel oil and oil residues (sludge) aboard ship for purification, pump ability, reduction of water content and preparation for incineration, as a means of disposal. ISO Fuel Oil Standard 8217 lists 60°C as the minimum flashpoint for fuel oil used in the machinery space. However, various components of the fuel oil system require fuel oil to be heated above the ISO 8217 standard of 60°C. For example, fuel oil purifiers that generate oil residue (sludge) typically operate in a temperature range of 80°C to 90°C. As recognized in MARPOL Annex I, regulation 12, Unified Interpretation 17.1, sludge tanks in ships operating with heavy oil, that needs to be purified for use, should be fitted with adequate heating arrangements or other suitable means to facilitate the pump ability and discharge of the tank content. Existing agreed amended guidance for handling oily wastes in machinery spaces found in MEPC.1/Circ.511 and IBTS Guidance Notes and forwarded to this Committee by DE 51 for adoption, further recognizes this practice and the need to be able to heat oil residues (sludge) up to 60°C, to evaporate water and to facilitate incineration. Should there be any concern at all on this safety issue, perhaps it should not be over exceeding the flashpoint of oil residues (sludge) but in exceeding the auto-ignition temperature which most often is in excess of 200°C, a temperature never reached in this practice.

10 While the ISO 8217 minimum fuel oil flashpoint standard is 60°C, in practice, the flashpoint is usually higher. A review of independent tests of 29 fuel oil deliveries over a one-year period from various suppliers to a shipowner indicated that the flashpoint exceeded 70°C for each delivery. From a fire safety standpoint, storage tanks for oil residue (sludge), including incinerator service tanks, are vented to a safe location and vents are fitted with flame screens

similar to fuel oil tanks. Further, resolution MEPC.76(40), Standard Specification for Shipboard Incinerators (adopted on 25 September 1997) addresses safety issues associated with incinerator installations after 1 January 2000, including spaces for storing waste. However, the heating of oil residue (sludge) is not specifically addressed. In practice, depending on the incinerator design and arrangement, it may not be necessary to heat oil residue (sludge) above the flashpoint to evaporate water but it may be necessary for incineration.

Summary and proposal

11 Discussion by the DE 51 Working Group of the issue of the addition of ORB guidance to facilitate the correct recording of the reduction of oil residue (sludge) volume to ensure compliance with MARPOL Annex I by mariners has raised related safety questions associated with the heating of oil residues (sludge). As a result, the ORB amendments, as proposed, do not include any reference to the proper recording of the reduction of oil residue (sludge) volume by heating and the issue may not be resolved until the FP Sub-Committee responds to MEPC over the question of the safety of heating oil residues (sludge) as requested by the DE Sub-Committee. The next meeting of FP is the fifty-third session currently scheduled for 16 to 20 February 2009. This means that MEPC probably cannot consider advice until its next session which is likely to be during the summer of 2009, about a year away. Meanwhile, the regular practice of reduction of sludge volume by heating to reduce evaporate water will continue, as it should. Accordingly, the Marshall Islands believes that providing guidance to mariners concerning the proper recording of this method of sludge volume reduction and disposal should not be delayed.

12 The Marshall Islands Administration proposes that the two issues be separated and that MEPC 58 add the guidance concerning recording of the heating of oil residues (sludge) to the ORB Coding guidance, which the DE Correspondence Group saw as valuable, either within Code C, or Code I as the Committee may agree. With regard to the issue of the safety of heating oil residues (sludge) to a temperature likely to be above its flashpoint, the basis for this question should be considered by this Committee in light of existing IMO standards and guidance, industry practice, class rules and other existing safeguards and clarification provided to the Fire Protection Sub-Committee as to the advice being sought.

Action requested of the Committee

13 The Committee is invited to consider the above and take action as appropriate.