PROMOTION OF IMPLEMENTATION AND ENFORCEMENT OF MARPOL AND RELATED INSTRUMENTS

Review of the Integrated Bilge Treatment System (IBTS) Guidelines

Submitted by INTERTANKO

SUMMARY

Executive summary: This document provides a summary of the views of INTERTANKO's members following consideration of the use and implementation of the integrated bilge treatment system (IBTS) concept. Some examples of these considerations are provided together with possible changes to the relevant IBTS guidance and documentation.

Strategic direction: 7.1

High-level action: 7.1.2

Output: -

Action to be taken: Paragraph 23

Related documents: MEPC.1/Circ.642, MEPC.1/Circ.676, MEPC.1/Circ.760, and MEPC.1/Circ.736/Rev.2

1 This document provides a summary of the views and experiences of INTERTANKO's members on the implementation of the integrated bilge treatment system (IBTS) concept, as provided in MEPC.1/Circ.642, as amended by MEPC.1/Circ.676 and MEPC.1/Circ.760, together with the associated record-keeping requirements provided for in MEPC.1/Circ.736/Rev.2. An invitation is extended to Member States and observer organizations to consider the information in the document with a view to the submission of a formal action paper on the subject at MEPC 70.

Background

2 Most new tankers are delivered with integrated bilge treatment systems (IBTS) which are installed in accordance with the specifications in the annex to the 2008 Revised Guidelines for systems for handling oily wastes in machinery spaces of ships incorporating guidance notes.
for an integrated bilge water treatment system (IBTS) (MEPC.1/Circ.642, as amended by MEPC.1/Circ.676 and MEPC.1/Circ.760).

3 INTERTANKO's members welcome and consequently utilize the IBTS concept and believe it should continue to be developed and streamlined. Experience gathered from INTERTANKO members combined with the advancement in waste management equipment and its installation on new tankers suggests that certain features of the IBTS, the accompanying guidance and its associated record-keeping be further developed to minimize waste generation, account for current improvements in management options and improve clarity and guidance given to seafarers in regards to record-keeping.

4 The information in this submission is based on a review and assessment by a working group of INTERTANKO members and provides some examples of where updates and clarifications may be useful in moving the IBTS concept forward in terms of the implementation of the IBTS Guidelines and the use of the relevant record books.

Consideration in the use of the IBTS concept

Example 1: Bilge primary tanks for IBTS ships

5 Bilge primary tanks (BPT) are designed to filter oil before it goes into oily bilge water holding tanks (OBT). MEPC.1/Circ.642 defines the BPT as a pre-treatment unit for separation of oily bilge water. Confusion frequently arises due to the designation of the BPT and its inclusion or not in the IOPP Certificate. Some Administrations and their recognized organizations (RO) view the BPT as a tank and as such have this recorded on the IOPP Certificate while others follow the given definition within MEPC.1/Circ.642 and view the BPT as a filtering unit only. In the latter case the BPT is referenced in the Oil Record Book (ORB) but not included in the IOPP Certificate.

6 To provide clarity and certainty on the issue raised, the BPT could be considered as a pre-treatment unit under the IBTS and not a bilge holding tank. It would therefore not be considered necessary to record the BPT as a tank on the ship's IOPP Certificate so long as the ship has an approved IBTS statement from or on behalf of the Administration.

7 To add greater clarity and going to the root of the problem, a solution may be to amend the name of the BPT and remove the word "tank". This would go some way in assisting misinterpretation between Administrations, port State control inspectors and ship builders. In practical terms the unit would still need to be recorded due to the need to fill this tank on new buildings or after dry-dock. As such it could be recorded as a means of treatment in the IOPP Certificate with an accompanying statement that a unit of XXm³ is provided as per the approved IBTS statement. This will assist in the declaration of this fixed volume for inspection and compliance purposes.

Example 2: Bilge primary tanks for non-IBTS ships

8 A similar confusion to that described in paragraphs 5 to 7 also exists with non-IBTS tankers. It has been observed that a degree of inconsistency between recognized organizations exists when it comes to whether these ships have the BPT listed in section 3.3 of the IOPP Certificate or not. Regulation 2.34 of MARPOL Annex I states that, "oily bilge water holding tank means a tank collecting oily bilge water prior to its discharge, transfer or disposal". MEPC.1/Circ.642 adds that an oily bilge water holding tank should be arranged to either discharge ashore or through the 15 ppm bilge separator overboard.
In practice, the BPT is not connected (suction side) to the bilge pump and it cannot discharge through the standard discharge connection. In addition the BPT is not connected directly to the oily water separator.

The issue is further complicated on non-IBTS tankers that are fitted with heating coils in the BPT for disposal of bilge water by evaporation. In such cases the BPT will meet the definition of an oily bilge water holding tank as noted above and therefore warrant its inclusion in the IOPP Certificate. Maintaining an accurate ORB record of BPT operations is not possible due to the design of the BPT, which makes it difficult to accurately estimate quantities transferred/evaporated.

**Example 3: Drains to the sludge tank**

Standard practice is to transfer the skimmed top layer from the BPT to the oil residue (sludge) tank but at present there is some difference of opinion as to whether this should be recorded in the ORB or not. One proposal is that this transfer should not be recorded as per MEPC.1/Circ.736/Rev.2 in Part I of the ORB because there is no pump used during the transfer and furthermore it is difficult to determine the oil quantity that is finally skimmed to the sludge tank.

**Example 4: Clean drain systems (CDS) definition**

The current definition for Clean Drain Systems in MEPC.1/Circ.642 can be applied to closed drains from the auxiliary engine and main engine condensate only. However IBTS does not exclude other non-oily drains which are open drains such as the scuppers around the engine control room (ECR) cooler unit, the fresh water (FW) tank, the cool FW expansion tank overflow, the jacket water heater and distillation plan and the distillation plant ejector pump.

It would be beneficial to provide clarity on whether a CDS that is supposed to be closed but has scuppers (open) flowing into it is still within the definition of clean drains and therefore an IBTS systems or not. Clarity regarding this point will assist in determining whether clean drains can reasonably be stored in the after peak tank (APT) and whether air conditioning condensate water can be discharged directly overboard through the greywater line system as it is done on non-IBTS ships.

**Example 5: Distinction between oily bilge-water and oil residues (sludge) systems**

It is becoming common practice to avoid as much as possible water containing oil entering the oily-bilge water system and instead transfer this effluent directly to the oil residues (sludge) system. In fact, there is a tendency for ship builders to rely on the oil residue (sludge) system and divert water drain with a minimal risk of containing oil to this system.

One option to facilitate the management of oily bilge water would be to clearly define, within the concept of the IBTS in MEPC.1/Circ.642, water with a risk of containing oil and the means by which to stream this effluent. In this respect, INTERTANKO would propose that a revision of MEPC.1/Circ.642 should include a recommendation that water with the risk of containing oil is led back through the BPT (if installed) and not directly to the oil residues (sludge) system. This in fact, is the primary purpose of both the oily water separator (OWS) and the IBTS.

**Example 6: Management of evaporation condensation from oil residues (sludge) system**

Evaporation as a means to vaporize water contained in the sludge tank is an acceptable method for its disposal. The efficiency of this evaporation largely depends on the
vent line going out from the tank. There is some condensation expected in the vent line which in some new designs has a water/oil mist collector from where the condensation leads back to the Oil residue (sludge) service tank. This is considered an appropriate means of managing the condensate rather than transferring it to the bilge system.

17 To further facilitate the above recommended practice, INTERTANKO would encourage the installation of effective condensation pipes to facilitate the evaporation process. By this means, the removal of the condensate water should also be facilitated. The practical approach has been outlined above, however, to ensure uniformity and clarity in the underlying principle for the piping arrangement to the oil residue (sludge) service tank, a clear description and reference should be included in MEPC.1/Circ.642 together with the amendment to the flow diagram of the IBTS, such as the below proposal:

![Figure 1: Current flow diagram of the IBTS, page 12, MEPC.1/Circ.642](https://edocs.imo.org/Final Documents/English/MEPC 69-INF.24 (E).docx)

![Figure 2: Proposed inclusion of condensate line back to oil residue (sludge) service tank](https://edocs.imo.org/Final Documents/English/MEPC 69-INF.24 (E).docx)

18 To minimize the quantity of oil mixing with water in the evaporation process, it has been observed that "simmering" (temperature control (normally between 80 to 85 centigrade)) can prevent over mixing the oil and water and allows more water without oil to be evaporated.
Example 7: Recording of oily bilge-water holding tank incineration, evaporation and transfers to the slop tank

19 Some incinerator types currently being installed on new buildings have the ability to incinerate bilge water and as such are being installed in order to carry out bilge water incineration independently from the sludge incineration system. The use of the incinerator in this manner is useful in further minimizing oily waste on board and has been welcomed by INTERTANKO's members. However, it has been suggested that the use of the incinerator to manage oily bilge in this manner should be recorded appropriately, such as is commonly undertaken for sludge incineration.

Next steps

20 The above provides just a few of the examples discussed and the proposals put forward by members of the INTERTANKO working group. A review of the IBTS concept and waste management aboard tankers has given rise to many further proposals for streamlining waste management while minimizing waste production and improving the efficiency of waste management on board.

21 One particular route of action which may be considered by the Committee in the future would be the amalgamation of the three separate IBTS related documents, namely MEPC.1/Circ.642, as amended by MEPC.1/Circ.676 and MEPC.1/Circ.760, in order to place all IBTS related matters into a single document with one set of definitions and standardized nomenclature. In bringing these documents together any discrepancies or inconsistencies can be removed and updates relevant to experience and new technologies can be incorporated.

22 INTERTANKO plans to submit a proposal to MEPC 70 and invites Member States and interested observer organizations to make contact with the INTERTANKO delegation if they wish to contribute to the development of this work.

Action requested of the Committee

23 The Committee is invited to note the issues and proposals put forward in the document.