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Agenda item 5

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DEVELOPMENT OF GUIDANCE ON MATTERS RELATING TO IN-WATER CLEANING

Comments on document PPR 12/5/Rev.1

Submitted by BEMA

SUMMARY

Executive summary: Following on the related submissions and discussions during the Correspondence Group on Development of Guidance on Matters Relating to In-water Cleaning, this document identifies considerations on the proposed draft guidance on the in-water cleaning of ships' biofouling in order to improve uptake of the Guidance and to address discrepancies between the draft guidance and the *2023 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species* (resolution MEPC.378(80)).

*Strategic direction, 1
if applicable:*

Output: 1.21

Action to be taken: Paragraph 13

Related documents: PPR 11/5/8; PPR 12/5/Rev. 1 and resolution MEPC.378(80)

Background

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *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.5) and provides comments on document PPR 12/5/Rev.1 (Canada).

2 The Marine Environment Protection Committee, at its eightieth session, adopted the *2023 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species* (hereafter "the 2023 Biofouling Guidelines") by way of resolution MEPC.378(80).

3 Paragraph 9.3 of the 2023 Biofouling Guidelines noted the potential need for continued work to develop international standards for the management of in-water cleaning. At its tenth session, the Sub-Committee invited Member States and international organizations to submit any relevant information on best practices for biofouling inspections and cleaning actions to the Organization as it became available in the future (PPR 10/18, paragraph 5.47). Following the adoption of the 2023 Biofouling Guidelines, MEPC 80 agreed to change the title of output 1.21 to "Development of guidance on matters relating to in-water cleaning" with the target completion year of 2025.

4 At PPR 11, a Correspondence Group on Development of Guidance on Matters Relating to In-water Cleaning was established and instructed to:

- .1 prepare draft guidance on matters relating to in-water cleaning, using documents PPR 11/5/1 and PPR 11/5/5 as the basis, taking into account proposals, comments and elements discussed in documents PPR 11/5, PPR 11/5/2, PPR 11/5/3, PPR 11/5/6, PPR 11/5/7 and PPR 11/5/8, as well as information in documents PPR 11/INF.15 and PPR 11/INF.18 and comments and decisions made at PPR 11, and considering the inclusion in the guidance of the following elements:
 - .1 planning, conducting and reporting on in-water cleaning operations, including documenting and mitigating any damage to anti-fouling coatings;
 - .2 verification and testing of in-water cleaning systems, including compatibility with anti-fouling coatings, and, if feasible, measurable performance criteria such as on removal, capture and effluent contents;
 - .3 conducting pre-cleaning and post-cleaning inspections; and
 - .4 verification or other form of expectations for in-water cleaning service providers;
- .2 propose a way forward for any matters that may not be possible to include in the guidance document(s) within the target completion date of this output but would be important to consider in due course; and
- .3 submit a written report to PPR 12.

5 Document PPR 11/5/8 (BEMA) cites 2023 Biofouling Guidelines, paragraph 4.3, which states that "The objective of these Guidelines is pursued by providing a globally consistent approach to stakeholders on the control and management of biofouling, which will contribute to minimizing the risk of transferring invasive aquatic species from biofouling on ships. An additional effect of good biofouling management can be a reduction in emissions to air from ships, due to lower fuel demand in operation as a result of a clean hull." This highlights that the purpose of the 2023 Biofouling Guidelines is the control and management of biofouling which has the dual benefit of both minimizing the risk of transferring invasive aquatic species as well as reducing emissions to air from ships due to lower fuel demand in operation as a result of a clean hull. For this reason, both proactive and reactive cleaning processes were accounted for in the 2023 Biofouling Guidelines.

6 The 2023 Biofouling Guidelines, paragraph 2.1 (Definitions), include a definition of "proactive cleaning" as "the periodic removal of microfouling on ships' hulls to prevent or minimize the attachment of macrofouling." In paragraph 9.4 the 2023 Biofouling Guidelines additionally state that "proactive cleaning is the periodic removal of microfouling on ships' hull and niche areas or other submerged surfaces as relevant prior to macrofouling growth and can be conducted with or without capture." Additionally, the 2023 Biofouling Guidelines note that extending the time between cleanings due to system downtime owing to a malfunction of the proactive cleaning equipment "may increase biofouling accumulation" (table 2), and state in paragraph 10.7.1 that the ability to minimize biofouling by use of proactive cleaning methods should be assessed as part of the effectiveness of the management actions in place in the Biofouling Management Plan.

Discussion

7 The Correspondence Group prepared the requested draft guidance on matters relating to in-water cleaning (hereafter "the draft guidance") as set out in annex 6 to document PPR 12/5/Rev.1.

8 Throughout the work of the Correspondence Group, BEMA has commented that the draft guidance provides a significant preference towards cleaning with capture, creating significant barriers to the potential approval of cleaning equipment that does not include capture. Specific examples of this language include:

- .1 paragraph 3.2.3 states "...cleaning with capture of waste substances, which is preferred for both proactive and reactive cleaning...";
- .2 paragraph 4.1.2 states "Cleaning with capture, which may be used to remove microfouling or macrofouling, is preferred as it poses lower environmental risks than cleaning without capture. Cleaning without capture should only be performed if allowed..."; and
- .3 paragraph 4.2.11.5.2 states "...in the case of cleaning without capture ... if any macrofouling is found to be present, then cleaning operations should be suspended".

9 Each of these statements provides a stated preference towards cleaning with capture on the perceived basis that cleaning with capture is more protective of the environment.

10 Proactive cleaning of hulls, including operations commonly referred to as "hull grooming", is a well-recognized practice in the industry where ships undertake frequent cleaning of large areas of their hulls in order to prevent the development of macrofouling during operation. This practice has a number of environmental and economic advantages for the ship and the ports where cleaning takes place:

- .1 frequent cleaning of ships' anti-fouling coatings by gentle or non-abrasive means helps remove microfouling, maintaining the coating in a smooth and fouling-free condition, and does not degrade the coating's intended service life, allowing for better coating performance;
- .2 removal of microfouling from ships' hulls is well known to improve the fuel efficiency of ships, reducing air emissions created by burned fuel and reducing the overall fuel consumption of the ship;

- .3 more frequent cleaning of microfouling reduces the need for aggressive cleaning of attached macrofouling, reducing the damage to ships' coatings;
- .4 proactive cleaning may be completed by ships' crews during lay periods and, for some hull cleaning systems, during the ships' voyage to reduce ship downtime and lay periods required for cleaning operations;
- .5 implementing frequent, proactive measures to clean ships' hulls reduces the potential of macrofouling, leading to fewer species being transported through shipping. This not only enhances the efficiency and performance of ships but also helps protect marine ecosystems by minimizing the introduction of invasive species; and
- .6 frequent cleaning of ships' hulls reduces the need for reactive cleaning, which requires more abrasive cleaning with capture and must be completed in a harbour where adequate reception facilities are in place to manage and receive macrofouling. This increases both the time for ships to remain in port and the overall environmental impact to the harbour due to cleaning, ship idling operations, diving operations, ship support services, and increased port congestion.

11 In addition to the language of the draft guidance, which promotes the preference of cleaning with capture, the significant documentation, reporting, and inspection requirements of the draft guidance (sections 4.2 to 4.6, 5.1 and 5.2) create barriers to regularly scheduled and planned cleaning activities. In particular, the draft guidance does not account for conducting of cleaning operations during a voyage or lay periods outside of territorial waters (e.g. while drifting). As these are increasing practices used by industry and the draft guidance is intended "to support the ongoing development of new in-water cleaning technologies, including diverless technologies" (the draft guidance, paragraph 1.5), it is critical that the draft guidance account for these technologies and cleaning operations.

12 BEMA notes that there appears to be a discrepancy between the minimum performance standard for in-water cleaning systems and the ex-situ readiness testing requirements in section 6.3 (section 6.2 uses "not significantly increase" whereas section 6.3 removes "significantly") as well as expectation in paragraph 6.3.3 that in-water cleaning will not release any waste substances (in the case of cleaning with capture), or significantly increase coating substances in the water (in the case of cleaning without capture). Both of these items point to an expectation of complete or 100% capture (in the case of cleaning with capture) and no impact to the coating (in the case of cleaning without capture). It is the experience of the in-water cleaning suppliers that this standard is not technologically achievable.

Action requested of the Sub-Committee

13 The Sub-Committee is invited to consider the comments contained in this document in the context of the finalization of the draft guidance on the in-water cleaning of ships' biofouling, and take action as appropriate to support the global availability of safe and environmentally responsible in-water cleaning services so as to support the universal application of the 2023 Biofouling Guidelines.