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DEVELOPMENT OF GUIDANCE ON MATTERS RELATING TO IN-WATER CLEANING

Procedure for testing and certification of in-water cleaning companies

Submitted by ICS and BIMCO

SUMMARY

Executive summary:	This document provides information on the industry approval process for in-water cleaning with capture that was originally published in January 2021 and updated in September 2023. The proposal is to include the document in the Organization's discussions related to the development of guidance on in-water cleaning.
Strategic direction, if applicable:	1
Output:	1.21
Action to be taken:	Paragraph 16
Related documents:	MEPC 76/13/2; MEPC 80/17; PPR 7/7/1 and PPR 10/18

Background

1 MEPC 80 adopted resolution MEPC.378(80) on the *2023 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species* (2023 Biofouling Guidelines).

2 MEPC 80 also agreed to change the title of output 1.21 from "Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62))" to "Development of guidance on matters relating to in-water cleaning" and add it to the biennial agenda of the PPR Sub-Committee.

3 PPR 10 invited interested Member States and international organizations to work intersessionally and submit concrete proposals on guidance on matters relating to in-water cleaning to the next session of the Sub-Committee.

Discussion

4 Biofouling management is an important issue for shipowners because biofouling has the potential to transfer invasive aquatic species and to increase a ship's drag in the water. An increased drag significantly reduces the hydrodynamic performance of a ship, which increases its fuel consumption, thereby impacting the ship's greenhouse gas (GHG) emissions.

5 The 2023 Biofouling Guidelines recommend in-water cleaning with capture when fouling levels are greater than or equal to a fouling rating of 2 and as such access to in-water cleaning around the world is becoming increasingly important.

6 In document MEPC 76/13/2, ICS and BIMCO provided information on an industry standard on in-water cleaning, which was developed to ensure that the in-water cleaning of a ship's hull, and niche areas including the propeller, can be carried out safely, efficiently and in an environmentally sustainable way. More than 25 participants from Administrations, anti-fouling system (AFS) manufacturers, international organizations, in-water cleaning companies, laboratories, paint manufacturers and shipowners have participated in an industry working group, which lasted three years.

7 The standard was accompanied by the approval procedure for in-water cleaning companies. Subject to fulfilling all the requirements stipulated in the approval procedure, a cleaning company could be certified to clean different areas on the ship. This approval procedure provided all stakeholders including the ports, local authorities and shipowners with the confidence that the certified cleaning company can carry out in-water cleaning safely and efficiently without any negative impacts on the environment.

8 Following the adoption of the 2023 Biofouling Guidelines, BIMCO, ICS and members of the industry working group undertook a review of the approval procedure to ensure it remained fit for purpose. The outcome of the review is the publication of the *Procedure for independent testing and certification of in-water cleaning companies* (herein "the procedure"). The revision specifically focuses on providing confidence in in-water cleaning systems' capability to effectively capture waste substances. The procedure can be found in the link provided in paragraph 16.

9 The objective is to ensure that:

.1 cleaning systems and processes are tested and certified consistently by a competent organization; and

.2 test results can be utilized by cleaning companies to apply for local permissions from ports and other relevant authorities to operate within their jurisdictions.

10 The procedure establishes three criteria to be fulfilled prior to the issuance of a certificate. Criteria A and B are mandatory while criterion C is optional depending on local requirements.

11 Criterion A – the passing of tests of in-water cleaning systems with capture will be based on the determination that the separation and/or treatment of captured waste substances during in-water cleaning removes:

.1 at least 90% (by mass) of material from seawater influent; and

.2 at least 95% of the particulate material in effluent water is < 10 µm in equivalent spherical diameter (ESD).

12 Criteria B and C – tests are related to the impact on local water quality. Criterion B tests the local water quality parameters of Total Suspended Solids (TSS) for particulates, dissolved biocides and compounds relating to the AFS. Criterion C tests dissolved biocides found in AFS (e.g. copper and zinc). These tests are conducted in the vicinity of the cleaning unit and at the effluent discharge point from the separation and/or treatment systems to ensure the levels are not elevated significantly above ambient levels during the same time period.

13 TSS is used to measure the impact on water quality from waste substances released or produced during cleaning. Dissolved biocides and compounds (e.g. copper and zinc) are used specifically as a measure of the AFS impact on water quality. Determination of both of these criteria should assess:

.1 cleaning unit samples, against the same parameter(s) from background samples during the same cleaning time period, and

.2 outlet samples from separation and/or treatment units against the same parameter(s) from background samples.

14 Test results should not be elevated significantly above ambient levels. To determine this statistical analysis (e.g. confidence interval of 95% or $\alpha = 0.05$ in a t-test) should be used.

15 While not being formal performance criteria, the procedures also state that an in-water cleaning system with capture should be capable of removing macrofouling without damaging the surface of the ship. It requires that residual macrofouling is recorded. Furthermore, any damage to ship coatings and/or surfaces during the testing of the in-water cleaning system should be documented.

Action requested of the Sub-Committee

16 The Sub-Committee is invited to consider the *Procedure for independent testing and certification of in-water cleaning companies*, which can be downloaded using the following address: https://www.bimco.org/about-us-and-our-members/publications/procedure-for-independent-testing-and-certification-of-in-water-cleaning-companies, when developing guidance on matters relating to in-water cleaning.