The International Convention on the control of harmful anti-fouling systems on ships, 2001 (AFS Convention) addresses the anti-fouling systems on ships, with its focus on the prevention of adverse impacts from the use of anti-fouling systems and the biocides they may contain, rather than the transfer of invasive aquatic species.


The potential for invasive aquatic species to be transferred through biofouling has been recognized, as all ships have some degree of biofouling.

There are a number of factors that influence the level of biofouling, such as design and construction, particularly the number and location of niche areas, operating profile (time underway, alongside or at anchor), trading routes and maintenance history, including type and condition of anti-fouling coating system.

Implementing practices to control and manage biofouling can greatly assist with reducing the transfer of invasive aquatic species.

**Biofouling Management Plan and Record Book**

The biofouling management measures to be undertaken on a ship should be outlined in a biofouling management plan and records of practices kept in a biofouling record book.

**Biofouling Management Plan**

It is recommended that every ship should have a biofouling management plan.

The intent of the plan should be to provide effective procedures for biofouling management.

The Biofouling Management Plan may be a stand-alone document, or integrated in part or fully, into the existing ships’ operational and procedural manuals and/or planned maintenance system.

The biofouling management plan should be specific to each ship and be included in the ship’s operational documentation.

The plan should address, among other things, the following:

1. relevant parts of the Guidelines
2. details of the anti-fouling systems and operational practices or treatments used, including those for niche areas
3. hull locations susceptible to biofouling, schedule of planned inspections, repairs, maintenance and renewal of anti-fouling systems
4. details of the recommended operating conditions suitable for the chosen anti-fouling systems and operational practices
5. details relevant for the safety of the crew, including details on the anti-fouling system(s) used
6. details of the documentation required to verify any treatments recorded in the Biofouling Record Book

The biofouling management plan should be updated as necessary.
Biofouling Record Book

It is recommended that a Biofouling Record Book is maintained for each ship.

The book should record details of all inspections and biofouling management measures undertaken on the ship. This is to assist the shipowner and operator to evaluate the efficacy of the specific anti-fouling systems and operational practices on the ship in particular and of the biofouling management plan in general.

The record book could also assist interested State authorities to quickly and efficiently assess the potential biofouling risk of the ship and thus minimize delays to ship operations.

The Biofouling Record Book may be a stand-alone document, or integrated in part, or fully, into the existing ships' operational and procedural manuals and/or planned maintenance system.

It is recommended that the Biofouling Record Book be retained on the ship for the life of the ship.

Information that should be recorded in a Biofouling Record Book includes the following:

1. details of the anti-fouling systems and operational practices used (where appropriate as recorded in the Anti-fouling System Certificate), where and when installed, areas of the ship coated, its maintenance and where applicable, its operation;
2. dates and location of dry-dockings/slipping’s, including the date the ship was refloated, and any measures taken to remove biofouling, or to renew or repair the anti-fouling system;
3. the date and location of in-water inspections, the results of that inspection and any corrective action taken to deal with observed biofouling;
4. the dates and details of inspection and maintenance of internal seawater cooling systems, the results of these inspections and any corrective action taken to deal with observed biofouling and any reported blockages;
5. details of when the ship has been operating outside its normal operating profile, including any details of when the ship was laid-up, or inactive for extended periods of time.

Guidance on the format and content of a Biofouling Management Plan and Format of Biofouling Record Book can be found in IMO Resolution MEPC.207 (62).

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