
Control and Management of Ships' Biofouling

Notice to ship owners, managers, Masters, Approved Nautical Inspectors, Recognised Organisations and surveyors

This Notice supersedes BMA Information Bulletin No.171

1. Purpose

- 1.1. This Information Notice (IN) provides guidance on the control and management of ships' biofouling to minimise the transfer of invasive aquatic species.

2. Application

- 2.1. This Notice applies to all ships.

3. Introduction

- 3.1. The International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC) adopted Resolution [MEPC.378\(80\)¹ 2023 Guidelines for the Control and Management of Ships' Biofouling to Minimise the Transfer of Invasive Aquatic Species](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.378(80).pdf) in July 2023 to provide a globally consistent approach to the management of biofouling. This resolution revoked the earlier [MEPC.207\(62\) 2011 Guidelines for the Control and Management of Ships' Biofouling to Minimise the Transfer of Invasive Aquatic Species](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.207(62).pdf).
- 3.2. As noted in the introduction to MEPC.378(80), the potential for invasive aquatic species transferred through biofouling to cause harm has been recognised by the IMO, the Convention on Biological Diversity (CBD), several [United Nations Environment Programme \(UNEP\)](https://www.unep.org/)² Regional Seas Conventions (e.g., Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution), the Asia Pacific Economic Cooperation forum (APEC), and the Secretariat of the Pacific Region Environmental Program (SPREP).

¹ [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.378\(80\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.378(80).pdf)

² <https://www.unep.org/>

- 3.3. Studies have shown that biofouling can also be a significant vector for the transfer of invasive aquatic species. Biofouling on ships entering the waters of States may result in the establishment of invasive aquatic species which may pose threats to human, animal and plant life, economic and cultural activities and the aquatic environment.
- 3.4. All ships have some degree of biofouling, even those which may have been recently cleaned or had a new application of an anti-fouling coating system. Studies have shown that the biofouling process begins within the first few hours of a ship's immersion in water. The biofouling that may be found on a ship is influenced by a range of factors, such as:
- i. design and construction, particularly the number, location and design of niche areas;
 - ii. specific operating profile, including factors such as operating speeds, ratio of time underway compared with time alongside, moored or at anchor, and where the ship is located when not in use (e.g., open anchorage or estuarine port);
 - iii. places visited and trading routes; and
 - iv. maintenance history, including: the type, age and condition of any anti-fouling coating system, installation and operation of anti-fouling systems and dry-docking/slipping and hull cleaning practices.
- 3.5. Implementing practices to control and manage biofouling can greatly assist in reducing the risk of the transfer of invasive aquatic species. Such management practices can also improve a ship's hydrodynamic performance and can be effective tools in enhancing energy efficiency and reducing air emissions from ships.
- 3.6. Whilst MEPC.378(80) is not mandatory, the Bahamas Maritime Authority (BMA) encourages Companies³ operating ships registered in The Bahamas to familiarise themselves with the content of MEPC.378(80) and voluntarily apply the guidelines to their ships.
- 3.7. It should be noted that [Resolution MEPC.357\(78\) 2022 Guidelines for Inspection of Antifouling systems on ships](#)⁴ recommended that those guidelines be incorporated in the future revision of resolution [A.1155\(32\) Procedures for port State control, 2021](#)⁵; however this has not been actioned as of the latest version, [A.1185\(33\) Procedures for port State control, 2023](#).

³ The "Company" is the entity responsible for the management of the ship in accordance with the ISM Code. For ships to which the ISM Code is not applicable, the Company is the Managing Owner in accordance with Section 52 of the Bahamas Merchant Shipping Act

⁴ [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.357\(78\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.357(78).pdf)

⁵ [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1155\(32\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1155(32).pdf)

4. **Biofouling Record Book**

- 4.1. In order to record details of hull inspections and biofouling management measures undertaken on ships, the BMA has been producing a Biofouling Record Book, in the format specified in MEPC.207(62). The Biofouling Record Book was extensively revised and split into 2 parts in MEPC.378(80):
- i. **Part I - Biofouling management activities:** Biofouling Record Book Part I should be provided to every ship with a Biofouling Management Plan (BFMP), to record relevant biofouling activities such as inspections, maintenance and cleaning activities. Biofouling Record Book Part II should also be provided to record when the ship has a higher risk of biofouling accumulation and related contingency actions.
 - ii. **Part II - Monitoring of biofouling risk parameters:** Biofouling Record Book Part II should be provided to every ship with a Biofouling Management Plan, to record when the ship is at higher risk of biofouling accumulation given by monitoring of biofouling risk parameters. Relevant contingency actions should also be recorded.
- 4.2. Biofouling Record Book Parts I & II are available to order from the BMA Publications section – see [BMA Marine Notice 51](#)⁶ for ordering details.
- 4.3. As MEPC.378(80) changed the numbers used to record items in the Biofouling Record Books, existing Biofouling Record Books are not compatible with MEPC.378(80). Accordingly, the BMA will not provide any further Record Books in the old (MEPC.207(62)) format.
- 4.4. However, in order to reduce waste, existing purchased stocks of Biofouling Record Books may continue to be used until stock is exhausted, provided that:
- i. Existing Biofouling Record Books are closed, and a line drawn through any unused pages;
 - ii. The cover of the new (MEPC.207(62) format) Record Book is clearly annotated as “Part I” or “Part II”, as appropriate;
 - iii. A copy of these instructions and the relevant introduction pages as per MEPC.378(80) are printed and attached to the new Record Book. These are provided in Annex I & II for reference.
 - iv. The introduction pages in the MEPC.207(62) format Record Book have a line drawn through them;
 - v. Entries use the Code/Item numbers as specified in the MEPC.378(80) format.
- 4.5. The use of electronic record keeping systems to record activities is an alternative method to a hard copy record book. In case electronic recording is to be used,

⁶ <https://www.bahamasmaritime.com/wp-content/uploads/2021/11/MN051-Publications-v1.0-ID-2543438.pdf>

resolution [MEPC.312\(74\)](#)⁷ may be used for guidance. Please also refer to BMA Marine Notices [MN09 Electronic Record Keeping Systems](#) and [MN10 MARPOL Electronic Record Books](#).

5. Specific Regional Requirements

- 5.1. Certain regions have specific requirements relating to the control of biofouling. There may be penalties for ships which are considered to have excessive biofouling or that do not comply with local requirements. **Heavily fouled ships may be refused entry.**
- 5.2. Companies operating ships in such regions should ensure that they comply with any specific regional requirements.
- 5.3. Where the BMA is aware of specific regional requirements, these are summarised in Annex III.

6. Queries

- 6.1. Any queries on this Notice may be addressed to tech@bahamasmaritime.com or any BMA office.

⁷ [https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.312\(74\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MEPCDocuments/MEPC.312(74).pdf)

Revision History

Version	Description of Revision
1.0	First Issue
1.1	Updated branding
2.0	Updated mandatory biofouling requirements for Australia and updated various weblinks.
2.1	New paragraph 3.7. new section 6 and minor editorial changes
2.2	Section 3 Update Reference to IMO MEPC.378(80) and minor editorial changes and terms of reference applied; section 4 revised and Annexes I & II added; specific regional requirements moved to Annex III (with update to terms of reference for Australian Biofouling Management Requirements Version 02, confirmation of date for implementation and introduction of 3 Options available to meet the required standard; update to terms of reference for New Zealand Craft Risk Management Standard for Biofouling Version 2023 and implementation date).

ANNEX I – BIOFOULING RECORD BOOK PART I - Introduction pages**1 Introduction**

The following pages of this section show a comprehensive list of items of biofouling management activities which are, when appropriate, to be recorded in Biofouling Record Book Part I. Management of biofouling should be in line with an approved Biofouling Management Plan (BFMP) and take into account guidelines developed by the Organization. The items have been grouped into operational sections, each of which is denoted by a letter code.

When making entries in Biofouling Record Book Part I, the date, operational code and item number should be inserted in the appropriate columns and the required particulars should be recorded chronologically in the blank spaces. Each completed operation should be signed for and dated by the officer or officers in charge. The master of the ship should sign each completed page.

The use of an electronic record book to record activities is an alternative method to a hard copy record book. Electronic recording and reporting should be encouraged as it may have many benefits and may allow ships to utilize their technology to reduce administrative burdens and contribute to onboard environmental initiatives, e.g. reduction of paper use. In case electronic recording is to be used, resolution MEPC.312(74) may be used for guidance.

Biofouling Record Book Part I contains many references to observations regarding fouling rating. These observations may be included in separate reports including observations of subsections and corresponding photos/video. The entries in Biofouling Record Book Part I may be a summary only including a conclusion on whether the activity is in line with the BFMP.

Biofouling Record Book Part I should be kept on board the ship in a place where it is readily available for inspection at all reasonable times and for the life of the ship. Any inspection of Biofouling Record Book Part I should be performed as expeditiously as possible without causing the ship to be unduly delayed.

LIST OF ITEMS TO BE RECORDED**(A) Proactive cleaning**

1. Date and location of ship when proactive cleaning occurred.
2. General observations with regard to biofouling prior to cleaning, if any (i.e. extent of microfouling and macrofouling in line with the defined ratings).
3. Records of permits required to undertake in-water proactive cleaning, if applicable.
4. Details of hull and niche areas cleaned.
5. General observations with regard to biofouling after the cleaning, if any (i.e. extent of microfouling and macrofouling in line with the defined ratings).
6. Reference to any supporting evidence/reports of the cleaning (e.g. report from supplier, photographs/videos and/or receipts), if any.
7. Method, manufacturer and model of proactive cleaning method used, if not given in BFMP.
8. Reference to test standard for which the method has been tested, if not given in BFMP.
9. Name, position and signature of the person in charge of the activity.

(B) Inspection

1. Date and location of inspection.
2. Methods used for inspection (including inspection tools/devices).
3. Areas inspected of the ship.
4. Observations with regard to biofouling (extent of microfouling and macrofouling in line with the defined fouling rates).
5. Observations with regard to anti-fouling system (AFS) condition.
6. Reference to any supporting evidence/reports of the inspection.

7. Name, position and signature of the person in charge of the activity.

(C) Reactive cleaning

1. Date and location of ship when cleaning occurred.
2. Records of permits required to undertake in-water cleaning, if applicable.
3. Description of hull and niche areas cleaned.
4. Methods of reactive cleaning used.
5. Estimation of overall biofouling after cleaning in line with the defined fouling rates.
6. Reference to any supporting evidence/reports of the activity.
7. Receipt or other documenting evidence of collection/delivery of the wastes.
8. Name, position and signature of the person in charge of the activity.
9. Manufacturer and model of cleaning and capture device as well as cleaning company executing the cleaning.
10. Reference to test standard for which the method has been tested, if relevant.

(D) Additional operational procedures and general remarks

ANNEX II – BIOFOULING RECORD BOOK PART II - Introduction pages**1 Introduction**

The following pages of this section show a comprehensive list of risk parameters to be monitored and recorded in Biofouling Record Book Part II whenever the risk is increased according to the BFMP. The items have been grouped into sections, each of which is denoted by a letter code.

When making entries in Biofouling Record Book Part II, the date, code and item number should be inserted in the appropriate columns and the required particulars should be recorded chronologically in the blank spaces. Each completed operation should be signed for and dated by the officer or officers in charge. The master of the ship should sign each completed page.

The use of an electronic record book to record when the ship is subject to higher risk of biofouling accumulation is an alternative method to a hard copy record book. Electronic recording and reporting should be encouraged as it may have many benefits and may allow ships to utilize technology to monitor the risk parameters as defined in the BFMP. This may reduce administrative burdens and contribute to better surveillance of potential risk. In case electronic recording is to be used whenever the ship has higher risk, resolution MEPC.312(74) may be used for guidance.

Biofouling Record Book Part II may contain many references to contingency actions. When actions include inspection, maintenance and/or cleaning, these may be recorded in Biofouling Record Book Part I.

Biofouling Record Book Part II should be kept on board the ship in a place where it is readily available for inspection at all reasonable times and for the life of the ship.

Any inspection of Biofouling Record Book Part II should be performed as expeditiously as possible without causing the ship to be unduly delayed.

LIST OF ITEMS TO BE RECORDED**(A) When the ship operates outside the expected operating profile specified in the****BFMP (e.g. speed, temperature or salinity)**

1. Duration and dates when ship is not operating in line with its BFMP.
2. Reason for departure from normal operation.
3. Contingency actions taken to minimize biofouling accumulation (e.g. more frequent inspections) taken in the period when the ship is operating outside the expected operating profile.
4. Time and location (port name or latitude/longitude) when the ship operates again as specified in the BFMP.

(B) Maintenance/service or damage to AFC

1. Date/period and description of any observed reduction of the efficacy, damage or deviation from maintenance/service to anti-fouling coating (AFC) during its lifetime.
2. Date/period and description of any operation beyond expected lifetime.
3. Contingency actions taken to minimize biofouling accumulation (e.g. more frequent inspections).
4. Date/period and location where any AFC maintenance or repair was performed (e.g. in dry dock).
5. Description of any AFC, including patch repairs, that was applied during maintenance.

Detail the type of AFC, the area and locations it was applied to (including the location of dry-dock support blocks if relevant), an estimated percentage cover of reapplication of the AFC, the coating thickness achieved and any surface preparation work undertaken (e.g. complete removal of underlying AFC or application of new AFC over the top of existing AFC).

6. Reference to any supporting data for AFC maintenance (e.g. AFC technical file).
7. Name, position and signature of the person in charge of the activity.

(C) Maintenance/service or downtime/malfunction of MGPS

1. Date/period and description of any observed reduction of the efficacy, downtime, malfunction or deviation from maintenance/service of marine growth prevention system (MGPS) during its lifetime.
2. Date/period and description of operation beyond the expected lifetime.
3. Date and location of any instances when the system was not operating in line with the BFMP.
4. Records of maintenance (including regularly monitoring the electrical and mechanical functions of the systems, calibration, or adjustment of treatment dosages).
5. Contingency actions taken to minimize biofouling accumulation (e.g. more frequent inspections).
6. Name, position and signature of the person in charge of the activity.

(D) Maintenance/service or downtime/malfunction of other AFS

1. Date/period and description of any observed reduction of the efficacy, downtime, malfunction or deviation from maintenance/service of other AFS during its lifetime.
2. Date/period and description of operation beyond expected lifetime.
3. Date and location of any instances when the system was not operating in line with the Biofouling Management Plan.
4. Records of maintenance.
5. Contingency actions taken to minimize biofouling accumulation (e.g. more frequent inspections).

(E) Deviation from regular use of expected proactive cleaning as specified in the**BFMP**

1. Date and location where ship did not conduct proactive cleaning as specified.
2. Contingency actions taken to minimize biofouling accumulation (e.g. inspections of biofouling and/or reactive cleaning before return to proactive cleaning activity).
3. Records of maintenance, if any.
4. Date when ship returned to normal activities with proactive cleaning.

(F) Deviation from necessary reactive cleaning as specified in the BFMP

1. Date and location where ship was inspected and reactive cleaning found necessary.
2. Contingency actions taken until reactive cleaning, including scheduling of reactive cleaning activity.
3. Date when ship completed the reactive cleaning and reference to relevant recording in Part I.

(G) When the ship is idle (berthed, anchored, moored) for a longer period

1. Date and location where ship was laid up, including general description of biofouling pressure, e.g. temperature and distance to the coastline.
2. Contingency actions taken to minimize biofouling accumulation (e.g. inspections, sea chests blanked off or short voyages taken prior to and following the period laid up).
3. Precautions taken to minimize biofouling accumulation (e.g. short voyage).
4. Date when ship returned to normal operations.

(H) When the ship has performance loss as per Performance Monitoring System

for a period beyond the expected period as specified in the BFMP

1. Date and location where ship started with performance loss beyond the expectations.
2. Inspections or biofouling management actions taken prior to and following the period with performance loss.
3. Contingency actions taken to minimize biofouling accumulation.
4. Date when ship returned to normal performance.

(I) Other deviations

ANNEX III – SPECIFIC REGIONAL REQUIREMENTS

7. AUSTRALIA

- 1.1. The Biosecurity Amendment (Biofouling Management) Regulations 2021 (biofouling regulations) [entered into force on 15 June 2022](#)⁸. This introduced requirements for operators of all vessels to provide information on biofouling management practices prior to arriving in Australia.
- 1.2. Vessel operators can demonstrate proactive management of biofouling by implementing one of three accepted proactive biofouling management options. Version 2 of Australian Biofouling Management Requirements [ABFMR](#)⁹ is available on their website.
- 1.3. Vessel operators can demonstrate proactive management of biofouling by implementing one of the three accepted proactive biofouling management options:

- i. **Option 1: Implementation of an effective biofouling management plan (BFMP) and record book.**

If you report that the vessel has implemented an effective biofouling management plan and record book, you must be able to provide us with the following documents:

Biofouling management plan (BFMP) that meets the minimum standards set out in the ABFMR.

An effective BFMP must be vessel specific and should be included in the ships' operational documentation. The BFMP must have sufficient detail for the crew to implement the specified biofouling management activities.

Email marinepests@aff.gov.au to obtain a biofouling management plan example template.

Biofouling record book (BFRB) that meets the minimum standards set out in ABFMR.

The BFRB should contain a complete and up-to-date record of all biofouling management activities undertaken on the vessel and used in conjunction with the BFMP. It should be kept from the date the BFMP came into effect and retained for the life of the vessel. The BFRB may be electronic or in hard copy and available for inspection on request.

⁸ <https://www.agriculture.gov.au/biosecurity-trade/import/industry-advice/2023/269-2023>

⁹ <https://www.agriculture.gov.au/biosecurity-trade/aircraft-vessels-military/vessels/marine-pest-biosecurity/biofouling/australian-biofouling-requirements#management-requirements>

A biofouling management plan and record book must meet the department's minimum standards to satisfy the requirements of option 1.

ii. **Option 2: Cleaned all biofouling within 30 days prior to arriving in Australian territory.**

If you report that the vessel has been cleaned of all biofouling within 30 days prior to arrival in Australian territorial seas, the following documents must be provided:

- cleaning report that meets the minimum standard set out in the ABFMR.
- supporting photographs and/or video that meets the minimum standard set out in the ABFMR.

A cleaning report and supporting evidence must meet the department's minimum standards to satisfy the requirements of proactive biofouling management option 2

iii. **Option 3: Implementation of an alternative biofouling management method pre-approved by the department.**

If you report that the vessel has an alternative biofouling management method, it must be pre-approved by the department and you must provide:

- department issued written approval, specific to the vessel and voyage.
- any specified documents in the department issued approval.

Approval of the alternative biofouling management method must be obtained from the department prior to arrival to meet the requirements of proactive biofouling management option 3.

Obtaining pre-approval

The department will consider applications for an alternative biofouling management method if the vessel operator can provide:

- a proposed alternative method that appropriately manages the biosecurity risk associated with the vessel's biofouling.
- sufficient evidence to substantiate the proposal.

Applications for an alternative biofouling management method must include:

- a completed and signed application form
- the most recent in-water inspection and cleaning reports
- evidence to support your application.

The application must be submitted to marinepests@aff.gov.au no later than 30 days prior to arrival in Australian territorial seas. Email marinepests@aff.gov.au to obtain an application form.

The department may request further information to process the application

- 1.4. An effective biofouling management plan must be vessel specific and should be included in ships' operational documentation. If a vessel reports to have implemented an effective biofouling management plan, a biosecurity officer may ask questions

during an inspection to determine whether the biofouling management plan and biofouling record book includes the following information:

- i. The operational profile of the vessel
 - ii. biofouling management actions for all niche areas
 - iii. the name of the anti-fouling coating(s) used on the vessel and where it is applied
 - iv. the effective anti-fouling coating service life
 - v. planned in-water biofouling inspections of the hull at specific timeframes of the in-service period
 - vi. whether the planned in-water biofouling inspections were completed as per the biofouling management plan
 - vii. whether the biofouling management plan specifies management actions based on the outcomes of in-water biofouling inspections
 - viii. if applicable, descriptions of installed marine growth prevention systems (MGPS) and scheduled maintenance for the systems.
- 1.5. A vessel operator that cannot demonstrate proactive biofouling management practices using one of the three accepted management options will be required to provide additional information in their pre-arrival report.
- 1.6. Biosecurity officers will use these responses to make a preliminary assessment of the biosecurity risks associated with the biofouling management practices on the vessel. This will determine the actions taken by the department on arrival into Australia..
- 1.7. On 15 December 2023 the department ended its introductory phase of biofouling requirements and is now focusing on transitioning to a business-as-usual approach, [Australian biofouling management requirements -version 2](#) ¹⁰
- 1.8. The approval process to conduct in-water cleaning operations in Australia is complex. The application process varies between state and territory jurisdictions and can involve multiple government agencies and port authorities who consider the biosecurity risks, environmental and port operation impacts of the activity. To obtain permission to clean vessels in Australian state or territory waters please contact the relevant authority which can be found on the [Department website](#)¹¹.
- 1.9. Downloads of Australian requirements are available in [PDF and Word formats](#).¹² Any questions or clarifications may be addressed directly to the Department at marinepests@awe.gov.au.

¹⁰ <https://www.agriculture.gov.au/sites/default/files/documents/Australian-biofouling-management-requirements.pdf>

¹¹ <https://www.awe.gov.au/biosecurity-trade/aircraft-vessels-military/vessels/marine-pest-biosecurity/biofouling/anti-fouling-and-inwater-cleaning-guidelines>

¹² <https://www.agriculture.gov.au/sites/default/files/documents/Australian-biofouling-management-requirements.pdf>

2. NEW ZEALAND

- 2.1. All vessels must provide evidence of biofouling management before they arrive in New Zealand.
- 2.2. The [Craft Risk Management Standard](#)¹³: Vessels 2023 (CRMS) for Biofouling outlines the requirements for international vessels. As of the 13 October 2023, all biosecurity requirements for the topside of vessels and for biofouling are in the updated Craft Risk Management Standard: Vessels 2023 .The new standard combines 2 previous standards – the Craft Risk Management Standard for Biofouling (2018) and the Craft Risk Management Standard for Vessels (2018).
- 2.3. There are two vessel categories under the CRMS based on the length of the intended stay in New Zealand:
 - i. Short-stay vessels – those staying in New Zealand for less than 20 days, and only visiting [approved places of first arrival](#)¹⁴.
 - ii. Long-stay vessels – those staying 21 days or longer, or visiting areas not approved as places of first arrival.
- 2.4. Most short-stay vessels are commercial vessels, including:
 - i. tankers
 - ii. bulkers
 - iii. container ships
 - iv. commercial cargo vessels.
- 2.5. Long-stay vessels often include:
 - i. yachts and other recreational vessels
 - ii. cruise vessels
 - iii. work and project vessels
 - iv. research vessels
 - v. defence vessels.
- 2.6. The biofouling requirements may be met by carrying out and keeping records of one of the following:
 - i. Undertaking continual hull maintenance using best practices (recommended for short-stay vessels).

¹³ <https://www.mpi.govt.nz/dmsdocument/19757-Craft-Risk-Management-Standard-for-Vessel>

¹⁴ <https://www.biosecurity.govt.nz/news-and-resources/resources/registers-and-lists/places-of-first-arrival-seaports/>

- ii. Cleaning the hull and niche areas within 30 days before arrival in New Zealand (recommended for long-stay vessels).
- 2.7. Some commercial vessels, such as cruise vessels, may not be able to meet the requirements of the CRMS using one of the methods outlined in the standard. These vessels are encouraged to develop a [Craft Risk Management Plan \(CRMP\)](#)¹⁵ that outlines alternate but equivalent ways of managing biofouling.
- 2.8. If a vessel that is surveyed is found to be non-compliant, normal processes for non-compliant vessels will follow. Note this does not necessarily mean a vessel will be directed to leave New Zealand waters. A range of actions are available to deal with non-compliance, including education or restrictions to itinerary.
- 2.9. Further information on New Zealand's requirements is provided at the [Biosecurity New Zealand](#)¹⁶ website, including a [Frequently Asked Questions \(FAQ\)](#)¹⁷ document. Alternatively, the Ministry for Primary Infrastructure (MPI) can be contacted at standards@mpi.govt.nz.

¹⁵ <https://www.mpi.govt.nz/import/border-clearance/ships-and-boats-border-clearance/biofouling/commercial-vessels/>

¹⁶ <https://www.biosecurity.govt.nz/importing/border-clearance/vessels/arrival-process-steps/biofouling/commercial-vessels/>

¹⁷ <https://www.biosecurity.govt.nz/dmsdocument/41226-2020-Biofouling-survey-faqs.pdf>

3. UNITED STATES OF AMERICA - CALIFORNIA

- 3.1. The [California State Lands Commission](#)¹⁸ (SLC) regulates biofouling aboard all vessels of 300 gross registered tons or more arriving at California ports which carry, or are capable of carrying, ballast water.
- 3.2. **Reporting requirements:** Ships are required to submit SLC's "Marine Invasive Species Program (MISP) [Annual Vessel Reporting Form](#)¹⁹(AVRF) through the web-based platform, [MISP.IO](#)²⁰ at least 24 hours in advance of a ship's first arrival at any California port each calendar year. For more information regarding regulations, statutes, stakeholder communications, technical advisory groups, and legislation for the Marine Invasive Species Program, visit the [California State Lands Commission website](#)²¹
- 3.3. **Recordkeeping & Management requirements:** For existing ships, the requirements apply after the first dry-docking (out of water) on or after 01 January 2018. The requirements also apply to new ships delivered on or after 01 January 2018. The following records must be made available for the SLC's inspection and review upon request. Ships that do not maintain records consistent with the Biofouling Regulations' requirements, will have a 60-day "grace period" to develop compliant records:
- i. **Biofouling Management Plan.** The Biofouling Regulations incorporate by reference MEPC.378(80). Ships must have onboard a written biofouling management plan that is at least consistent with MEPC.378(80) and which addresses certain information depending on the biofouling management practice employed by the ship (e.g., anti-fouling coatings, anodes, injections systems, or electrolysis).
 - ii. **Biofouling Record Book.** Ships must have onboard a biofouling record book that is at least consistent with the format specified in MEPC.378(80) and which contains details of all inspections and biofouling management measures undertaken on the ship since its most recent dry docking, or since the beginning of a newly-delivered ship's service.
- 3.4. **Mandatory biofouling management requirements.** Anti-fouling coatings must not be aged beyond their effective lifespan. Ships that do not have anti-fouling coatings must demonstrate how they have adhered to their Biofouling Management Plan. With respect to niche areas, the anti-fouling practices used by a ship should be listed in its Biofouling Management Plan. There are additional requirements for vessels remaining in any port for 45 days or more. All instances of biofouling management must be recorded in a vessel's Biofouling Record Book. Furthermore, the Biofouling Regulations expressly prohibit propeller cleaning in California.

¹⁸ https://www.slc.ca.gov/wp-content/uploads/2018/10/4_8_GuidanceDoc.pdf

¹⁹ https://www.slc.ca.gov/wp-content/uploads/2018/08/Annual_Vessel_Reporting_Form.pdf

²⁰ <https://misp.io/>

²¹ <https://www.slc.ca.gov/misp/>

- 3.5. It should be noted that, as of 01 January 2020, SLC is authorised to access vessels to sample ballast water and biofouling for research purposes under the Marine Invasive Species Act.
- 3.6. A MISP Web Reporting Portal has been added for submission of required biofouling management (and ballast water) reporting forms. The MISP Reporting Portal is available [here](#)²².
- 3.7. Further information on the MISP is available from the SLC website:
<https://www.slc.ca.gov/misp/>.

²² <https://www.slc.ca.gov/content-types/2024-misp-updates/>