



REPUBLIC OF THE MARSHALL ISLANDS

MARITIME ADMINISTRATOR

BIOFOULING RECORD BOOK INSTRUCTIONS

Biofouling Record Book (BFRB) Part I – Biofouling Management Activities

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

When making entries in the BFRB 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 BFRB 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 the BFRB Part I may be a summary only including a conclusion on whether the activity is in line with the BFMP. The BFRB 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 the BFRB Part I should be performed as expeditiously as possible without causing the ship to be unduly delayed.



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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 (e.g., 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 (e.g., extent of microfouling and macrofouling in line with the defined ratings).
6. Reference to any supporting evidence/reports of the cleaning, if any (e.g., report from supplier, photographs/videos and/or receipts).
7. Method, manufacturer, and model of proactive cleaning method used, if not given in the BFMP.
8. Reference to the test standard for which the method has been tested, if not given in the 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.



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(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 the test standard for which the method has been tested, if relevant.

(D) ADDITIONAL OPERATIONAL PROCEDURES AND GENERAL REMARKS



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BFRB Part II – Monitoring of Biofouling Risk Parameters

The following pages of this section show a comprehensive list of risk parameters to be monitored and recorded in the BFRB 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 the BFRB 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 BFRB Part II may contain many references to contingency actions. When actions include inspection, maintenance, and/or cleaning, these may be recorded in the BFRB Part I.

The BFRB 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 the BFRB Part II should be performed as expeditiously as possible without causing the ship to be unduly delayed.



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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 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.



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(C) MAINTENANCE/SERVICE OR DOWNTIME/MALFUNCTION OF MARINE GROWTH PREVENTION SYSTEM

1. Date/period and description of any observed reduction of the efficacy, downtime, malfunction, or deviation from maintenance/service of marine growth prevention system 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 BFMP.
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.



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(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 the BFRB 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