



**JABATAN LAUT MALAYSIA  
MARINE DEPARTMENT MALAYSIA**

**MALAYSIAN SHIPPING NOTICE**

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Notis kepada pemilik kapal serta orang yang mempunyai kepentingan kepada kebenaran pengeluaran sijil-sijil statutory.

*Notice to ship owners and persons with interest toward the delegation of statutory certification.*

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**IMPLEMENTATION OF THE INTERNATIONAL CONVENTION ON THE  
CONTROL OF HARMFUL ANTI-FOULING SYSTEMS ON SHIPS (AFS), 2001**

1. International Convention On The Control Of Harmful Anti-fouling Systems on Ships (AFS), 2001 came into effect for Malaysia since **17<sup>th</sup> September 2008**. The enforcement of the AFS for Malaysia is done by way of the Merchant Shipping Ordinance 1952.
2. Pursuant to the above, the detail requirements and standards for the implementation of the AFS for Malaysian Ship as attached in **Appendix 1**.
3. This notice is applicable throughout Malaysia and to all Malaysian ships and all ships while in Malaysian waters.

**Ketua Pengarah Laut/ Director General of Marine**  
**Tarikh/Date: 28 DECEMBER 2008**

## APPENDIX 1

## INTERNATIONAL CONVENTION ON THE CONTROL OF HARMFUL ANTI-FOULING SYSTEMS ON SHIPS, 2001

## Annex 1 - Controls on Anti-Fouling Systems

Anti-fouling system	Control measures	Application	Effective date
Organotin compounds which act as biocides in anti-fouling systems	Ships shall not apply or re-apply such compounds	All ships	1 January 2003
Organotin compounds which act as biocides in anti-fouling systems	Ships either: (1) shall not bear such compounds on their hulls or external parts or surfaces; or (2) shall bear a coating that forms a barrier to such compounds leaching from the underlying noncompliant antifouling systems	All ships (except fixed and floating platforms, FSUs, and FPSOs that have been constructed prior to 1 January 2003 and that have not been in dry-dock on or after 1 January 2003)	1 January 2008

## Annex 2 - Required Elements for an Initial Proposal

- (1). An initial proposal shall include adequate documentation containing at least the following:
  - (a). identification of the anti-fouling system addressed in the proposal: name of the anti-fouling system; name of active ingredients and Chemical Abstract Services Registry Number (CAS number), as applicable; or components of the system which are suspected of causing the adverse effects of concern;
  - (b). characterization of the information which suggests that the anti-fouling system or its transformation products may pose a risk to human health or may cause adverse effects in non-target organisms at concentrations likely to be found in the environment (e.g., the results of toxicity studies on representative species or bioaccumulation data);
  - (c). material supporting the potential of the toxic components in the anti-fouling system, or its transformation products, to occur in the environment at concentrations which could result in adverse effects to non-target organisms, human health, or water quality (e.g., data on persistence in the water column, sediments and biota; the release rate of toxic components from treated surfaces in studies or under actual use conditions; or monitoring data, if available);
  - (d). an analysis of the association between the anti-fouling system, the related adverse effects and the environmental concentrations observed or anticipated; and
  - (e). a preliminary recommendation on the type of restrictions that could be effective in reducing the risks associated with the anti-fouling system.

- (2). An initial proposal shall be submitted in accordance with rules and procedures of the Organization.

### **Annex 3 - Required Elements of a Comprehensive Proposal**

- (1). A comprehensive proposal shall include adequate documentation containing the following:
- (a). developments in the data cited in the initial proposal;
  - (b). findings from the categories of data set out in paragraphs (3)(a), (b) and (c), as applicable, depending on the subject of the proposal and the identification or description of the methodologies under which the data were developed;
  - (c). a summary of the results of studies conducted on the adverse effects of the anti-fouling system;
  - (d). if any monitoring has been conducted, a summary of the results of that monitoring, including information on ship traffic and a general description of the area monitored;
  - (e). a summary of the available data on environmental or ecological exposure and any estimates of environmental concentrations developed through the application of mathematical models, using all available environmental fate parameters, preferably those which were determined experimentally, along with an identification or description of the modeling methodology;
  - (f). an evaluation of the association between the anti-fouling system in question, the related adverse effects and the environmental concentrations, either observed or expected;
  - (g). a qualitative statement of the level of uncertainty in the evaluation referred to in subparagraph (f);
  - (h). a recommendation of specific control measures to reduce the risks associated with the anti-fouling system; and
  - (i). a summary of the results of any available studies on the potential effects of the recommended control measures relating to air quality, shipyard conditions, international shipping and other relevant sectors, as well as the availability of suitable alternatives.
- (2). A comprehensive proposal shall also include information on each of the following physical and chemical properties of the component(s) of concern, if applicable:
- melting point;
  - boiling point;
  - density (relative density);
  - vapour pressure;
  - water solubility / pH / dissociation constant (pKa);

- oxidation/reduction potential;
- molecular mass;
- molecular structure; and
- other physical and chemical properties identified in the initial proposal.

(3). For the purposes of paragraph (1)(b) above, the categories of data are:

(a). Data on environmental fate and effect:

- modes of degradation/dissipation (e.g., hydrolysis/photodegradation/biodegradation);
- persistence in the relevant media (e.g., water column/sediments/biota);
- sediments/water partitioning;
- leaching rates of biocides or active ingredients;
- mass balance;
- bioaccumulation, partition coefficient, octanol/water coefficient; and
- any novel reactions on release or known interactive effects.

(b). Data on any unintended effects in aquatic plants, invertebrates, fish, seabirds, marine mammals, endangered species, other biota, water quality, the seabed, or habitat of non-target organisms, including sensitive and representative organisms:

- acute toxicity;
- chronic toxicity;
- developmental and reproductive toxicity;
- endocrine disruption;
- sediment toxicity;
- bioavailability/biomagnification/bioconcentration;
- food web/population effects;
- observations of adverse effects in the field/fish kills/ strandings/ tissue analysis; and
- residues in seafood.

These data shall relate to one or more types of non-target organisms such as aquatic plants, invertebrates, fish, birds, mammals and endangered species.

- (c). Data on the potential for human health effects (including, but not limited to, consumption of affected seafood).
- (4). A comprehensive proposal shall include a description of the methodologies used, as well as any relevant measures taken for quality assurance and any peer review conducted of the studies.

#### **Annex 4 - Surveys and Certification Requirements for Anti-Fouling Systems**

##### **Regulation 1 - Surveys**

- (1). Ships of 400 gross tonnage and above referred to in [article 3\(1\)\(a\)](#) engaged in international voyages, excluding fixed or floating platforms, FSUs, and FPSOs, shall be subject to surveys specified below:
  - (a). an initial survey before the ship is put into service or before the International Antifouling System Certificate (Certificate) required under [regulation 2](#) or [3](#) is issued for the first time; and
  - (b). a survey when the anti-fouling systems are changed or replaced. Such surveys shall be endorsed on the Certificate issued under [regulation 2](#) or [3](#).
- (2). The survey shall be such as to ensure that the ship's anti-fouling system fully complies with this Convention.
- (3). The Director General shall establish appropriate measures for ships that are not subject to the provisions of paragraph (1) of this regulation in order to ensure that this Convention is complied with.
- (4).
  - (a). As regards the enforcement of this Convention, surveys of ships shall be carried out by officers duly authorized by the Director General or as provided in [regulation 3\(1\)](#), taking into account guidelines for surveys developed by the Organization. Alternatively, the Director General may entrust surveys required by this Convention either to surveyors nominated for that purpose or to organizations recognized by it.
  - (b). An Director General nominating surveyors or recognizing organizations—to conduct surveys shall, as a minimum, empower any nominated surveyor or recognized organization to:
    - (i). require a ship that it surveys to comply with the provisions of [Annex 1](#); and
    - (ii). carry out surveys if requested by the appropriate authorities of a port State that is a Party to this Convention.
  - (c). When the Director General, a nominated surveyor, or a recognized organization determines that the ship's anti-fouling system does not conform either to the particulars of a Certificate required under [regulation 2](#) or [3](#), or to the requirements of this

Convention, such Director General, surveyor or organization shall immediately ensure that corrective action is taken to bring the ship into compliance. A surveyor or organization shall also in due course notify the Director General of any such determination. If the required corrective action is not taken, the Director General shall be notified forthwith and it shall ensure that the Certificate is not issued or is withdrawn as appropriate.

- (d). In the situation described in subparagraph (c), if the ship is in the port of another Party, the appropriate authorities of the port State shall be notified forthwith. When the Director General, a nominated surveyor, or a recognized organization has notified the appropriate authorities of the port State, the Government of the port State concerned shall give such Director General, surveyor, or organization any necessary assistance to carry out their obligations under this regulation, including any action described in [article 11](#) or [12](#).

### **Regulation 2 - Issue or Endorsement of an International Anti-fouling System Certificate**

- (1). The Director General shall require that a ship to which [regulation 1](#) applies is issued with a Certificate after successful completion of a survey in accordance with [regulation 1](#). A Certificate issued under the authority of a Party shall be accepted by the other Parties and regarded for all purposes covered by this Convention as having the same validity as a Certificate issued by them.
- (2). Certificates shall be issued or endorsed either by the Director General or by any person or organization duly authorized by it. In every case, the Director General assumes full responsibility for the Certificate.
- (3). For ships bearing an anti-fouling system controlled under [Annex 1](#) that was applied before the date of entry into force of a control for such a system, the Director General shall issue a Certificate in accordance with paragraphs (2) and (3) of this regulation not later than two years after entry into force of that control. This paragraph shall not affect any requirement for ships to comply with [Annex 1](#).
- (4). The Certificate shall be drawn up in the form corresponding to the model given in [Appendix 1](#) to this Annex and shall be written at least in English, French, or Spanish. If an official language of the issuing State is also used this shall prevail in the case of the dispute or discrepancy.

### **Regulation 3 - Issue or Endorsement of an International Anti-fouling System Certificate by Another Party**

- (1). At the request of the Director General, another Party may cause a ship to be surveyed and, if satisfied that this Convention has been complied with, it shall issue or authorize the issue of a Certificate to the ship and, where appropriate, endorse or authorize the endorsement of that Certificate for the ship, in accordance with this Convention.
- (2). A copy of the Certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Director General.
- (3). A Certificate so issued shall contain a statement that it has been issued at the request of the Director General referred to in paragraph (1) and it shall have the same force and receive the same recognition as a Certificate issued by the Director General.

- (4). No Certificate shall be issued to a ship which is entitled to fly the flag of a State which is not a Party.

#### **Regulation 4 - Validity of an International Anti-fouling System Certificate**

- (1). A Certificate issued under [regulation 2](#) or [3](#) shall cease to be valid in either of the following cases:
  - (a). if the anti-fouling system is changed or replaced and the Certificate is not endorsed in accordance with this Convention; and
  - (b). upon transfer of the ship to the flag of another State. A new Certificate shall only be issued when the Party issuing the new Certificate is fully satisfied that the ship is in compliance with this Convention. In the case of a transfer between Parties, if requested within three months after the transfer has taken place, the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Director General a copy of the Certificates carried by the ship before the transfer and, if available, a copy of the relevant survey reports.
- (2). The issue by a Party of a new Certificate to a ship transferred from another Party may be based on a new survey or on a valid Certificate issued by the previous Party whose flag the ship was entitled to fly.

#### **Regulation 5 - Declaration on Anti-fouling System**

- (1). The Director General shall require a ship of 24 meters or more in length, but less than 400 gross tonnage engaged in international voyages and to which [article 3\(1\)\(a\)](#) applies (excluding fixed or floating platforms, FSUs, and FPSOs) to carry a Declaration signed by the owner or owner's authorized agent. Such Declaration shall be accompanied by appropriate documentation (such as a paint receipt or a contractor invoice) or contain appropriate endorsement.
- (2). The Declaration shall be drawn up in the form corresponding to the model given in [Appendix 2](#) to this Annex and shall be written at least in English, French, or Spanish. If an official language of the State whose flag the ship is entitled to fly is also used, this shall prevail in the case of a dispute or discrepancy.

**Appendix 1 to Annex 4**

**INTERNATIONAL ANTI-FOULING SYSTEM CERTIFICATE**

(This certificate shall be supplemented by a Record of Anti-fouling Systems)

(Official seal)

(State)

Issued under the  
International Convention on the Control of Harmful Anti-Fouling Systems on Ships  
under the authority of the Government of

.....

(name of the State)

by

.....

(person or organization authorized)

When a Certificate has been previously issued, this Certificate replaces the certificate dated .....

Particulars of ship

Name of ship.....

Distinctive number or letters.....

Port of registry.....

Gross tonnage.....

IMO number .....

An anti-fouling system controlled under Annex 1 has not been applied during or after construction of this ship

An anti-fouling system controlled under Annex 1 has been applied on this ship previously, but has been removed by ..... (insert name of the facility) on .....(date)

An anti-fouling system controlled under Annex 1 has been applied on this ship previously, but has been covered with a sealer coat applied by ..... (insert name of the facility) .....on.....(date)

An anti-fouling system controlled under Annex 1 was applied on this ship prior to..... (date) , but must be removed or covered with a sealer coat prior to .....(date)

THIS IS TO CERTIFY THAT:

1 the ship has been surveyed in accordance with regulation 1 of Annex 4 to the Convention; and

2 the survey shows that the anti-fouling system on the ship complies with the applicable requirements of Annex 1 to the Convention.

Issued at.....

(Place of issue of Certificate)

.....  
(Date of issue)

.....  
(Signature of authorized official issuing the Certificate)

Date of completion of the survey on which this certificate is issued: .....

**RECORD OF ANTI-FOULING SYSTEMS**

This Record shall be permanently attached to the International Anti-Fouling System Certificate.



Particulars of ship

Name of ship : .....  
Distinctive number or letters : .....  
IMO number : .....

Details of anti-fouling system(s) applied

Type(s) of anti-fouling system(s) used .....

Date(s) of application of anti-fouling system(s) .....

Name(s) of company(ies) and facility(ies)/location(s) where applied .....

.....

Name(s) of anti-fouling system manufacturer(s).....

.....

Name(s) and colour(s) of anti-fouling system(s).....

.....

Active ingredient(s) and their Chemical Abstract Services Registry Number(s)

(CAS number(s))

.....

Type(s) of sealer coat, if applicable .....

Name(s) and colour(s) of sealer coat applied, if applicable

.....

Date of application of sealer coat.....

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at.....

(Place of issue of Record)

.....

(Date of issue)

.....

(Signature of authorized official  
issuing the record)



**Endorsement of the Records**

THIS IS TO CERTIFY that a survey required in accordance with regulation 1(1)(b) of Annex 4 to the Convention found that the ship was in compliance with the Convention

Details of anti-fouling system(s) applied

Type(s) of anti-fouling system(s) used.....

.....  
Date(s) of application of anti-fouling system(s).....

Name(s) of company(ies) and facility(ies) location(s) where applied.....

.....  
Name(s) of anti-fouling system(s) manufacturer(s).....

.....  
Name(s) and colour(s) of anti-fouling system(s).....

.....  
Active ingredient(s) and their Chemical Abstract Services Registry Number(s ) (CAS number(s))

.....  
Type(s) of sealer coat, if applicable .....

Name(s) and colour(s) of sealer coat applied, if applicable

.....  
Date of application of sealer coat .....

Signed:.....

(Signature of authorized official issuing the Record)

Place: .....

Date: .....

(Seal or stamp of the authority)

**Appendix 2 to Annex 4**

**DECLARATION ON ANTI-FOULING SYSTEM**

Drawn up under the

**International Convention on the Control of Harmful Anti-Fouling Systems on Ships**

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Length .....

Gross tonnage .....

IMO number (if applicable) .....

I declare that the anti-fouling system used on this ship complies with Annex 1 of the Convention.

.....  
 (Date) (Signature of owner or owner's authorized agent)

Endorsement of anti-fouling system(s) applied

Type(s) of anti- fouling system(s) used and date(s) of application.....  
 .....  
 .....  
 (Date) (Signature of owner or owner's authorized agent)

Type(s) of anti- fouling system(s) used and date(s) of application.....  
 .....  
 .....  
 (Date) (Signature of owner or owner's authorized agent)

Type(s) of anti- fouling system(s) used and date(s) of application.....  
 .....  
 .....  
 (Date) (Signature of owner or owner's authorized agent)