

Prohibition of Extinguishing Media Containing Perfluorooctane Sulfonic Acid (PFOS)

Object of Amendment

Rules for the Survey and Construction of Steel Ships Parts B and R
Guidance for the Survey and Construction of Steel Ships Parts B and R
Rules / Guidance for High Speed Craft

Reason for Amendment

The organic fluoride compound perfluorooctane sulfonic acid (PFOS) is water-repellent, oil-repellent, thermally stable and chemically stable. For such reasons, therefore, it has been used in various ways such as an abrasive, insecticide or foam-type extinguishing media. Due to its chemical stability, however, PFOS does not degrade under environment conditions and thus traces of it can remain for quite some time. Since studies have shown that PFOS is harmful to not only humans but also animals, its production and use has been internationally restricted by the “Stockholm Convention on Persistent Organic Pollutants” (POPs) since 2010.

On the other hand, the use of PFOS for ship equipment and extinguishing media is not restricted and is can be found used on several existing ships. At the 107th session of the IMO Maritime Safety Committee (MSC107) in May 2023, amendments to Regulations II-2 of SOLAS prohibiting fire-extinguishing media containing PFOS were adopted as resolution MSC.532(107). Similar amendments to the International Code of Safety for High-Speed Craft (HSC Code) were also adopted as resolutions MSC.536(107) and MSC.537(107).

At the 110th session of the IMO Maritime Safety Committee (MSC110) in June 2025, a unified interpretation (UI) regarding maker declarations and laboratory test reports related to confirmation that PFOS is not be used was adopted.

Accordingly, relevant requirements are amended based on MSC.532(107), MSC.536(107), MS.537(107) and the UI adopted at MSC110.

Outline of the Amendment

- (1) Specifies requirements related to the prohibition of the use of fire-extinguishing media containing PFOS.
- (2) Specifies requirements to confirm that fire-extinguishing media do not contain PFOS.

Effective Date and application

- (1) 10.11, Part R of the Rules for the Survey and Construction of Steel Ships and 1.1.4, Part 11 of the Rules for High Speed Craft
This amendment applies to ships the keels of which are laid or which are at a similar stage of construction on or after 1 January 2026.
- (2) Other than (1) above
Effective date of this amendment is 1 January 2026.

An asterisk (*) after the title of a requirement indicates that there is also relevant information in the corresponding Guidance.

ID:DX25-01

Amended-Original Requirements Comparison Table
 (Prohibition of Extinguishing Media Containing Perfluorooctane Sulfonic Acid (PFOS))

Amended	Original	Remarks
<p>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p>Part B CLASS SURVEYS</p> <p>Chapter 1 GENERAL</p> <p>1.4 Preparation for Survey and Other Items</p> <p>1.4.5 Procedure for Tests, Wear and Tear, etc.* 4 Replacement of fittings, equipment and parts, etc. In cases where it is necessary to replace any fittings, equipment or parts, etc. used onboard, replacements are to comply with the regulations to be applied during ship construction. However, in cases where new requirements are specified or where deemed necessary by the Society, the Society may require that such replacements comply with any new requirements in effect at the time the relevant replacement work is carried out. In addition, replacements are not to use any materials which contain asbestos, <u>and replacements for fire-extinguishing media are not to contain perfluorooctane sulfonic acid (PFOS).</u></p>	<p>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p>Part B CLASS SURVEYS</p> <p>Chapter 1 GENERAL</p> <p>1.4 Preparation for Survey and Other Items</p> <p>1.4.5 Procedure for Tests, Wear and Tear, etc. 4 Replacement of fittings, equipments and parts, etc. In cases where it is necessary to replace any fittings, equipment or parts, etc. used onboard, replacements are to comply with the regulations to be applied during ship construction. However, in cases where new requirements are specified or where deemed necessary by the Society, the Society may require that such replacements comply with any new requirements in effect at the time the relevant replacement work is carried out. In addition, replacements are not to use any materials which contain asbestos.</p>	

**Amended-Original Requirements Comparison Table
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Amended		Original					Remarks
Chapter 2 CLASSIFICATION SURVEYS							Unified Interpretations
Table B2.1 Plans and Documents – Hull (General)							
Name*1	Notes	Submission			Maintained On Board		
		Approval	Other	Finished Plans (Submission)	Finished Plans (On Board)	Ship Construction File	
					Ships engaged in international voyages	Ships subject to SOLAS Chapter II-1 Regulation 3-10	
(Omitted)							
<u>100 Maker declarations or laboratory test reports stating fire-fighting foams do not contain perfluorooctane sulfonic acid (PFOS)</u>	(1) <u>The phrase “containing perfluorooctane sulfonic acid (PFOS)” means present in concentrations of PFOS above 10 mg/kg (0.001 % by weight).</u> (2) <u>The declaration issued by the foam maker is to contain information about the foam such as, but not limited to, foam type, production period, batch No., ref. to type approval / MED Certificate for the foam.</u>		○				
Notes (Omitted)							

**Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
Chapter 3 ANNUAL SURVEYS		
Table B3.2 General Examination		
Items	Examination	Unified Interpretations
(Omitted)		
14 Fire extinguishing arrangement	(1) Confirmation that the fire extinguishing arrangement is in good condition and the fixed fire extinguishing system, semi-portable and portable fire extinguishers, firefighters' outfits, emergency fire pumps and the international shore connection are maintained in good order. (2) <u>When fire-fighting foams are replaced or newly fitted, confirmation that maker declarations or laboratory test reports are kept on board in accordance with item 100 of Table B2.1.</u>	
(Omitted)		
Note: Examination of suspect areas identified at previous surveys is to be carried out.		
The effective date of the amendment is according to EFFECTIVE DATE AND APPLICATION (A)		

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
<p align="center">RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p align="center">Part R FIRE PROTECTION, DETECTION AND EXTINCTION</p> <p align="center">Chapter 10 FIRE FIGHTING</p> <p><u>10.11 Fire-extinguishing Media Restrictions</u></p> <p><u>The purpose of this paragraph is to protect persons on board against exposure to dangerous substances used in fire fighting, as well as to minimize the impact of fire-extinguishing media that are deemed detrimental to the environment.</u></p> <p><u>10.11.1 General*</u></p> <p><u>1 Substances prohibited by this requirement are to be delivered to appropriate shore-based reception facilities when removed from the ship.</u></p> <p><u>2 Use or storage of extinguishing media containing perfluorooctane sulfonic acid (PFOS) is prohibited.</u></p>	<p align="center">RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p align="center">Part R FIRE PROTECTION, DETECTION AND EXTINCTION</p> <p align="center">Chapter 10 FIRE FIGHTING</p> <p align="center">(Newly added)</p>	<p align="center">MSC.532(107)</p>
<p align="center">The effective date of the establishment is according to EFFECTIVE DATE AND APPLICATION (B)</p>		

Amended-Original Requirements Comparison Table
 (Prohibition of Extinguishing Media Containing Perfluorooctane Sulfonic Acid (PFOS))

Amended	Original	Remarks
<p align="center">RULES FOR HIGH SPEED CRAFT</p> <p align="center">Part 2 CLASS SURVEYS</p> <p align="center">Chapter 1 GENERAL</p> <p>1.2 Preparation for Surveys and Others</p> <p>1.2.5 Procedure for Tests, Wear and Tear, etc.</p> <p>4 Replacement of fittings, equipment and parts, etc.</p> <p>In cases where it is necessary to replace any fittings, equipment or parts, etc. used onboard, replacements are to comply with the regulations to be applied during ship construction. However, in cases where new requirements are specified or where deemed necessary by the Society, the Society may require that such replacements comply with any new requirements in effect at the time the relevant replacement work is carried out. In addition, replacements are not to use any materials which contain asbestos, <u>and replacements for fire-extinguishing media are not to contain perfluorooctane sulfonic acid (PFOS).</u></p>	<p align="center">RULES FOR HIGH SPEED CRAFT</p> <p align="center">Part 2 CLASS SURVEYS</p> <p align="center">Chapter 1 GENERAL</p> <p>1.2 Preparation for Surveys and Others</p> <p>1.2.5 Procedure for Tests, Wear and Tear, etc.</p> <p>4 Replacement of fittings, equipments and parts, etc.</p> <p>In cases where it is necessary to replace any fittings, equipment or parts, etc. used onboard, replacements are to comply with the regulations to be applied during ship construction. However, in cases where new requirements are specified or where deemed necessary by the Society, the Society may require that such replacements comply with any new requirements in effect at the time the relevant replacement work is carried out. In addition, replacements are not to use any materials which contain asbestos.</p>	

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
<p>Chapter 2 CLASSIFICATION SURVEYS</p> <p>2.1 Classification Survey during Construction</p> <p>2.1.3 Submission of Other Plans and Documents 1 When it is intended to build a craft to the classification with the Society, the following plans and documents are to be submitted in addition to those required in 2.1.2:</p> <p>((1) to (9) are omitted.) <u>(10) Maker declarations or laboratory test reports stating fire-fighting foams do not contain perfluorooctane sulfonic acid (PFOS), as specified in 1.1.4, Part 11 of the Rules</u> <u>(11) Other plans and documents may be required where deemed necessary by the Society</u></p>	<p>Chapter 2 CLASSIFICATION SURVEYS</p> <p>2.1 Classification Survey during Construction</p> <p>2.1.3 Submission of Other Plans and Documents 1 When it is intended to build a craft to the classification with the Society, the following plans and documents are to be submitted in addition to those required in 2.1.2:</p> <p>((1) to (9) are omitted.) (Newly added) <u>(10) Other plans and documents may be required where deemed necessary by the Society.</u></p>	
<p>The effective date of the establishment is according to EFFECTIVE DATE AND APPLICATION (A)</p>		

Amended-Original Requirements Comparison Table
 (Prohibition of Extinguishing Media Containing Perfluorooctane Sulfonic Acid (PFOS))

Amended	Original	Remarks
<p>Part 11 FIRE PROTECTION, DETECTION, EXTINCTION AND MEANS OF ESCAPE</p> <p>Chapter 1 GENERAL</p> <p>1.1 General</p> <p><u>1.1.5 Fire-extinguishing Media Restrictions*</u> <u>The following restrictions apply to the use, storage or disposal of perfluorooctane sulfonic acid (PFOS).</u></p> <p><u>(1) Use or storage of extinguishing media containing perfluorooctane sulfonic acid (PFOS) is prohibited.</u></p> <p><u>(2) Substances prohibited by this requirement are to be delivered to appropriate shore-based reception facilities when removed from the craft.</u></p>	<p>Part 11 FIRE PROTECTION, DETECTION, EXTINCTION AND MEANS OF ESCAPE</p> <p>Chapter 1 GENERAL</p> <p>1.1 General</p> <p>(Newly added)</p>	<p>MSC.536(107) MSC.537(107)</p>
<p>The effective date of the establishment is according to EFFECTIVE DATE AND APPLICATION (B)</p>		

Amended-Original Requirements Comparison Table
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<p style="text-align: center;">GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p style="text-align: center;">Part B CLASS SURVEYS</p> <p style="text-align: center;">B1 GENERAL</p> <p>B1.1 Surveys</p> <p>B1.1.3 Intervals of Class Maintenance Surveys 3 The Occasional Surveys specified in 1.1.3-3(5), Part B of the Rules are as specified below: ((1) to (24) are omitted.) <u>(25) Fire-fighting foams containing perfluorooctane sulfonic acid (PFOS)</u> <u>For ships which are at the beginning stage of construction before 1 January 2026, confirmation that maker declarations or laboratory test reports are kept on board is to be carried out to verify compliance with 10.11.1, Part R of the Rules before first periodical survey on or after 1 January 2026. Where maker declarations or laboratory test reports are not available, sampling and testing of the extinguishing media on board is required to be conducted in accordance with guidance deemed appropriate by the Society. Here, “guidance deemed appropriate by the Society” means, for example, the guidance set out in EMSA Guidance on the Inventory</u></p>	<p style="text-align: center;">GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p style="text-align: center;">Part B CLASS SURVEYS</p> <p style="text-align: center;">B1 GENERAL</p> <p>B1.1 Surveys</p> <p>B1.1.3 Intervals of Class Maintenance Surveys 3 The Occasional Surveys specified in 1.1.3-3(5), Part B of the Rules are as specified below: ((1) to (24) are omitted.) (Newly added)</p>	<p>MSC.532(107) Unified Interpretations</p>

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Amended	Original	Remarks
<p style="text-align: center;"><u>of Hazardous Materials.</u></p> <p>B1.4 Preparation for Survey and Other Items</p> <p>B1.4.5 Procedure for Tests, Wear and Tear, etc. <u>1</u> With respect to 1.4.5-4, Part B of the Rules, surveyors are to confirm at periodical surveys that asbestos-free declarations and supporting documents are provided for any replaced or newly installed fittings, equipment, parts, etc. The wording “materials containing asbestos” means that asbestos is present in the product/material above the threshold value stipulated in Appendix 1 of <i>IMO</i> resolution <i>MEPC.379(80)</i>. <u>2</u> With respect to 1.4.5-4, Part B of the Rules, surveyors are to confirm at periodical surveys that <u>maker declarations or laboratory test reports stating replaced or newly installed fire-fighting foams do not contain perfluorooctane sulfonic acid (PFOS) are kept on board. The wording “containing perfluorooctane sulfonic acid (PFOS)” means present in concentrations of PFOS above 10 mg/kg (0.001 % by weight). The declaration issued by the foam maker is to contain information about the foam such as, but not limited to, foam type, production period, batch No., ref. to type approval / MED Certificate for the foam.</u></p>	<p>B1.4 Preparation for Survey and Other Items</p> <p>B1.4.5 Procedure for Tests, Wear and Tear, etc. With respect to 1.4.5-4, Part B of the Rules, surveyors are to confirm at periodical surveys that asbestos-free declarations and supporting documents are provided for any replaced or newly installed fittings, equipment, parts, etc. The wording “materials containing asbestos” means that asbestos is present in the product/material above the threshold value stipulated in Appendix 1 of <i>IMO</i> resolution <i>MEPC.379(80)</i>. (Newly added)</p>	
The effective date of the establishment is according to EFFECTIVE DATE AND APPLICATION (A)		

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<p align="center">GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p align="center">Part R FIRE PROTECTION, DETECTION AND EXTINCTION</p> <p align="center">R10 FIRE FIGHTING</p> <p><u>R10.11 Fire-extinguishing Media Restrictions</u></p> <p><u>R10.11.1 General</u> <u>1 The meaning of “fire-extinguishing media” in 10.11.1-2, Part R of the Rules includes fire-fighting foams.</u> <u>2 The wording “containing perfluorooctane sulfonic acid (PFOS)” in 10.11.1-2, Part R of the Rules means present in concentrations of PFOS above 10 mg/kg (0.001 % by weight).</u></p>	<p align="center">GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</p> <p align="center">Part R FIRE PROTECTION, DETECTION AND EXTINCTION</p> <p align="center">R10 FIRE FIGHTING</p> <p align="center">(Newly added)</p>	<p align="center">Unified Interpretations</p>
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<p align="center">GUIDANCE FOR HIGH SPEED CRAFT</p> <p align="center">Part 2 CLASS SURVEYS</p> <p align="center">Chapter 1 GENERAL</p> <p>1.1 Surveys</p> <p>1.1.3 Occasional Surveys For the occasional surveys specified in 1.1.3(5), Part 2 of the Rules, the following is to be complied with: (1) to (3) are omitted.) <u>(4) Fire-fighting foams containing perfluorooctane sulfonic acid (PFOS)</u> <u>For ships which are at the beginning stage of construction before 1 January 2026, confirmation that maker declarations or laboratory test reports are kept on board is to be carried out to verify compliance with 1.11.4, Part 11 of the Rules before first periodical survey on or after 1 January 2026. Where maker declarations or laboratory test reports are not available, sampling and testing of the extinguishing media on board is required to be conducted in accordance with guidance deemed appropriate by the Society. Here, “guidance deemed appropriate by the Society” means, for example, the guidance set out in EMSA Guidance on the Inventory of Hazardous Materials.</u></p>	<p align="center">GUIDANCE FOR HIGH SPEED CRAFT</p> <p align="center">Part 2 CLASS SURVEYS</p> <p align="center">Chapter 1 GENERAL</p> <p>1.1 Surveys</p> <p>1.1.3 Occasional Surveys For the occasional surveys specified in 1.1.3(5), Part 2 of the Rules, the following is to be complied with: (1) to (3) are omitted.) (Newly added)</p>	<p>MSC.536(107) MSC.537(107)</p>

Amended-Original Requirements Comparison Table
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Amended	Original	Remarks
<p>1.2 Preparation for Surveys and Others</p> <p>1.2.5 Procedure for Tests, Wear and Tear, etc.</p> <p><u>1</u> With respect to 1.2.5-4, Part 2 of the Rules, surveyors are to confirm at periodical surveys that asbestos-free declarations and supporting documents are provided for any replaced or newly installed fittings, equipment, parts, etc. The wording “materials containing asbestos” means that asbestos is present in the product/material above the threshold value stipulated in Appendix 1 of <i>IMO</i> resolution <i>MEPC.379(80)</i>.</p> <p><u>2</u> With respect to 1.2.5-4, Part 2 of the Rules, <u>surveyors are to confirm at periodical surveys that maker declarations or laboratory test reports stating replaced or newly installed fire-fighting foams do not contain perfluorooctane sulfonic acid (PFOS) are kept on board. The wording “containing perfluorooctane sulfonic acid (PFOS)” means present in concentrations of PFOS above 10 mg/kg (0.001 % by weight). The declaration issued by the foam maker is to contain information about the foam such as, but not limited to, foam type, production period, batch No., ref. to type approval / MED Certificate for the foam.</u></p>	<p>1.2 Preparation for Surveys and Others</p> <p>1.2.5 Procedure for Tests, Wear and Tear, etc.</p> <p>With respect to 1.2.5-4, Part 2 of the Rules, surveyors are to confirm at periodical surveys that asbestos-free declarations and supporting documents are provided for any replaced or newly installed fittings, equipment, parts, etc. The wording “materials containing asbestos” means that asbestos is present in the product/material above the threshold value stipulated in Appendix 1 of <i>IMO</i> resolution <i>MEPC.379(80)</i>. (Newly added)</p>	
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<p>Part 11 FIRE PROTECTION, DETECTION, EXTINCTION AND MEANS OF ESCAPE</p> <p>Chapter 1 GENERAL</p> <p>1.1 General</p> <p><u>1.1.4 Fire-extinguishing Media Restrictions</u> <u>1 The meaning of “fire-extinguishing media” in 1.1.4, Part 11 of the Rules includes fire-fighting foams.</u> <u>2 The wording “containing perfluorooctane sulfonic acid (PFOS)” in 1.1.4, Part 11 of the Rules means present in concentrations of PFOS above 10 mg/kg (0.001 % by weight).</u></p>	<p>Part 11 FIRE PROTECTION, DETECTION, EXTINCTION AND MEANS OF ESCAPE</p> <p>Chapter 1 GENERAL</p> <p>1.1 General</p> <p>(Newly added)</p>	<p>Unified Interpretations</p>
<p>The effective date of the establishment is according to EFFECTIVE DATE AND APPLICATION (A)</p>		
<p>EFFECTIVE DATE AND APPLICATION (A)</p> <p>1. The effective date of the amendments is 1 January 2026.</p> <p>EFFECTIVE DATE AND APPLICATION (B)</p> <p>1. This amendment applies to ships the keels of which are laid or which are at a similar stage of construction on or after the 1 January 2026 of establishment.</p>		