

# **Review of Guidance for the Approval of Materials and Equipment for Marine Use**

## **Object of Amendment**

Rules for the Survey and Construction of Steel Ships Parts B, C, D, GF, H, L, N, and X  
Guidance for the Survey and Construction of Steel Ships Parts B, C, U, W, CS, D, GF, H, K, L, N, S, P, PS, and R  
Guidance for Marine Pollution Prevention Systems  
Rules / Guidance for Cargo Refrigerating Installations  
Rules for Automatic and Remote Control Systems  
Guidance for Preventive Machinery Maintenance Systems  
Guidance for Centralized Cargo Monitoring and Control Systems  
Rules / Guidance for High Speed Craft  
Guidance for the Survey and Construction of Passenger Ships  
Rules / Guidance for the Survey and Construction of Inland Waterway Ships  
Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

## **Reason for Amendment**

The materials, equipment, etc. used on ships have traditionally required manufacturing process approval, type approval and approval of use, etc. in accordance with the Rules for the Survey and Construction of Steel Ships and other Rules, with specific approval procedures, in principle, being stipulated in the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use (hereinafter referred to as the “Guidance for Approval”). Based on Guidance for Approval, approval work is conducted through the review of drawings and various documents, investigations of manufacturing facilities and testing.

However, the handing of approval is complicated because the difference between “type approval” and “approval of use”, as both terms are defined in the Guidance for Approval, is unclear and because there are many terms related to approval. Furthermore, procedures related to the approval of materials, equipment, etc. that should be stipulated in the Guidance for Approval are sometimes stipulated in other Rules.

Accordingly, relevant requirements are amended to clarify the handling of approval.

## **Outline of Amendment**

The main details of this amendment are as follows:

- (1) Revises definitions and terminology.
- (2) Unifies descriptions of the expiration date of certificates of approval.
- (3) Deletes descriptions of the number of copies of documents to be submitted.
- (4) The “General” section is placed in Part 1, and Parts 1 to 4 have been reorganised to match the structure of other rules.
- (5) Adds type approval of materials for insulation used in liquefied gas fuel containment systems as Chapter 7 of Part 5. (Transferred from Annex 1 of Part N and Annex 1 of Part GF)
- (6) Adds type approval of Planned Machinery Maintenance Scheme (PMS) or Condition Based Maintenance Scheme (CBM) for management software as Chapter 1 of Part 6.

- (Transferred from the Annex of Part B)
- (7) Deletes “standardised design for machinery and equipment” from Part 6, Chapter 1. (Transferred to the Annex of Part B)
  - (8) In Chapters 1 and 2 of Part 7, changes “inspection and test specification for quality control (including test data)” at the time of application procedure to “information on the manufacturing and quality control standards” in line with other type approvals.
  - (9) Adds materials related to quality control standards and usage records to the submission materials in Chapter 3 of Part 7.
  - (10) In Chapter 1 of Part 8, changes type tests to type approval, and adds requirements related to submission documents and prior examination in line with other type approvals.

### **Effective Date and Application**

This amendment applies to materials and equipment for marine use for which the application for approval is submitted to the Society on or after 1 July 2026.

ID:DD25-01

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

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Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part B CLASS SURVEYS</b></p> <p align="center"><b>Chapter 2 CLASSIFICATION SURVEYS</b></p> <p><b>2.1 Classification Survey during Construction</b></p> <p><b>2.1.6 Coating and Corrosion Resistant Steel Technical Files</b></p> <p><b>1 Coating Technical Files</b> For the coatings of internal spaces, the coating technical files are to include at least (1) to (7) below.</p> <p>(1) A copy of the statement of compliance or approval certificate. ((2) to (7) are omitted.)</p> <p><b>2 Corrosion Resistant Steel Technical Files</b> Corrosion resistant steel technical files are to include at least (1) to (3) below.</p> <p>(1) Copy of Approval Certificate. ((2) and (3) are omitted.)</p>	<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part B CLASS SURVEYS</b></p> <p align="center"><b>Chapter 2 CLASSIFICATION SURVEYS</b></p> <p><b>2.1 Classification Survey during Construction</b></p> <p><b>2.1.6 Coating and Corrosion Resistant Steel Technical Files</b></p> <p><b>1 Coating Technical Files</b> For the coatings of internal spaces, the coating technical files are to include at least (1) to (7) below.</p> <p>(1) A copy of the statement of compliance or <u>type</u> approval certificate. ((2) to (7) are omitted.)</p> <p><b>2 Corrosion Resistant Steel Technical Files</b> Corrosion resistant steel technical files are to include at least (1) to (3) below.</p> <p>(1) Copy of <u>Type</u> Approval Certificate. ((2) and (3) are omitted.)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks																																			
<p><b>2.3 Alterations</b></p> <p><b>2.3.1 Examinations of Altered Parts*</b></p>	<p><b>2.3 Alterations</b></p> <p><b>2.3.1 Examinations of Altered Parts*</b></p>	Terminology alignment																																			
<p>Table B2.1 Plans and Documents – Hull (General)</p>																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="3" style="width: 15%;">Name*1</th> <th rowspan="3" style="width: 25%;">Notes</th> <th colspan="3" style="text-align: center;">Submission</th> <th colspan="2" style="text-align: center;">Maintained On Board</th> </tr> <tr> <th rowspan="2" style="width: 10%;">Approval</th> <th rowspan="2" style="width: 10%;">Other</th> <th rowspan="2" style="width: 10%;">Finished Plans (Submission)</th> <th rowspan="2" style="width: 10%;">Finished Plans (On Board)</th> <th colspan="2" style="text-align: center;">Ship Construction File</th> </tr> <tr> <th style="width: 10%;">Ships engaged in international voyages</th> <th style="width: 10%;">Ships subject to SOLAS Chapter II-1 Regulation 3-10</th> </tr> </thead> <tbody> <tr> <td colspan="7" style="text-align: center;">(Omitted)</td> </tr> <tr> <td style="vertical-align: top;">74</td> <td style="vertical-align: top;">Watertight cable penetration registers</td> <td style="vertical-align: top;">(1) All watertight cable penetrations are to be recorded and identified in the watertight cable penetration register. This is to include documentation referencing manufacturer manuals for each type of watertight cable penetration installed, type approval certificates for each type of watertight cable penetration, applicable installation drawings, records of each installed watertight cable penetration documenting the as-built condition after final inspections at shipyards, and sections to record any inspection, modification, repair or maintenance.  (2) to (4) are omitted.</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> </tr> <tr> <td colspan="7" style="text-align: center;">(Omitted)</td> </tr> </tbody> </table>			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)							74	Watertight cable penetration registers	(1) All watertight cable penetrations are to be recorded and identified in the watertight cable penetration register. This is to include documentation referencing manufacturer manuals for each type of watertight cable penetration installed, type approval certificates for each type of watertight cable penetration, applicable installation drawings, records of each installed watertight cable penetration documenting the as-built condition after final inspections at shipyards, and sections to record any inspection, modification, repair or maintenance.  (2) to (4) are omitted.	○	○	○	○	(Omitted)					
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<p>Notes</p> <p>*1 : For ships of not less than 500 <i>gross tonnage</i> engaged in international voyages, it is recommended submitted plans and documents be marked with <i>IMO</i> ship identification numbers.</p> <p>*2 : Plans and documents approved by the Society or copies thereto.</p>																																					

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<b>Table B2.10 Survey – Coating Application</b>		
<b>Survey Items</b>	<b>Details</b>	
1 Technical data sheet*1 and statement of compliance or type approval certificate	<p>(1) The technical data sheet and statement of compliance or <del>type</del> approval certificate comply with the “<i>PERFORMANCE STANDARD FOR PROTECTIVE COATINGS FOR DEDICATED SEAWATER BALLAST TANKS IN ALL TYPE OF SHIPS AND DOUBLE-SIDE SKIN SPACES OF BULK CARRIERS</i>” (IMO Performance Standard for Protective Coatings for Seawater Ballast Tanks, etc. / IMO resolution MEPC.215(82) as amended). The statement of compliance or <del>type</del> approval certificate is to be one of the following (a) to (c) items.</p> <p>(a) The Society’s approval certificate specified in <b>Chapter 4, Part 45 of Guidance for the Approval and <del>Type Approval</del> of Materials and Equipment for Marine Use</b></p> <p>(b) Statement of compliance issued by the Research Institute of Marine Engineering, Japan (RIME), the Japan Paint Inspection and Testing Association or MARINTEK</p> <p>(c) Other documents approved by the Society</p> <p>(2) The technical data sheet and statement of compliance or <del>type</del> approval certificate comply with the “<i>PERFORMANCE STANDARD FOR PROTECTIVE COATINGS FOR CARGO OIL TANKS OF CRUDE OIL TANKERS</i>” (IMO Performance Standard for Protective Coatings for Cargo Oil Tanks / IMO resolution MEPC.288(87) as amended). The statement of compliance or <del>type</del> approval certificate is to be either of the following (a) or (b) items.</p> <p>(a) The Society’s approval certificate specified in <b>Chapter 4, Part 45 of Guidance for the Approval and <del>Type Approval</del> of Materials and Equipment for Marine Use</b></p> <p>(b) Other documents approved by the Society</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>
2 Coating identification	(1) The coating identification on representative containers is consistent with the coating identified in the technical data sheet and statement of compliance or <del>type</del> approval certificate specified in item 1 above.	
(Omitted)	(Omitted)	
<p>Note</p> <p>*1 : “Technical data sheet” refers to the paint manufacturer product data sheets which contain detailed technical instructions and other information relevant to coatings and their application.</p>		

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p style="text-align: center;"><b><u>Annex 2.1.3 APPROVAL OF STANDARDIZED DESIGN FOR MACHINERY AND EQUIPMENT</u></b></p> <p><b><u>An1.1 General</u></b></p> <p><b><u>An1.1.1 Scope</u></b>  <u>The requirements of this chapter deal with the approval of the drawings and documents which are submitted in advance to the Society as the standardized design designating the construction, dimensions, materials, specifications, etc. on machinery and equipment required to obtain approval by submitting drawings to the Society in accordance with the requirements of 2.1.3, Part B of the Rules for the Survey and Construction of Steel Ships, 2.1.2, Part 2 of the Rules for High Speed Craft, 2.1.2, Part 2 of the Rules for the Survey and Construction of Inland Waterway Ships, 2.3.1, Part 1 of the Rules for Lifting Appliances and Anchor Handling Winches and 2.2.1 of the Rules for Cargo Refrigerating Installations.</u></p> <p><b><u>An1.2 Application</u></b></p> <p><b><u>An1.2.1 Application Form</u></b>  <u>The manufacturer, who intends to obtain the approval of standardized design, is to submit the appropriate application form (Form 6-1) filled in with necessary data and information to the Society (Head Office).</u></p>	<p><b>(Newly added)</b></p>	<p>"APPROVAL OF STANDARDIZED DESIGN FOR MACHINERY AND EQUIPMENT" in Part 6, Chapter 1 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use will be relocated to Annex of Part B. There are no changes to the approval requirements.</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b><u>An1.2.2 Drawings and Documents</u></b>  <u>In accordance with the requirements of the rules applicable to the machinery and equipment, drawings and documents, in triplicate, are to be submitted together with the application form specified in An 1.2.1.</u></p> <p><b><u>An1.3 Approval</u></b></p> <p><b><u>An1.3.1 Notification of Approval</u></b>  <u>The Society, when satisfied upon examination that the drawings and documents fulfill the requirement concerned, will agree on handling these drawings and documents as the standardized design. Then one copy each of the drawings and documents will be returned to the applicant with approval stamp of the Society, approval date, approval number and term of validity indicated on them.</u></p> <p><b><u>An1.3.2 Term of Validity</u></b>  <u>The term of validity of the approval of standardized design will be five <i>years</i> from the date of approval.</u></p> <p><b><u>An1.3.3 Renewal of Approval</u></b>  <u>1 The manufacturer, who intends to have a continuation of the approval of standardized design already expired or to make partial modification on the design, is to submit an application in accordance with the requirements of An 1.2 newly.</u>  <u>2 In case where approval is given for a design with partial modification, expiration date will not be renewed in principle.</u></p>		

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b><u>An1.3.4 Revocation of Approval</u></b>            In case where either of the following (1) or (2) applies, the Society will revoke the approval of standardized design, and give a notice to the manufacturer.</p> <p>(1) In association with the implementation or revision of international conventions, laws and regulations, the machinery and equipment for which the standardized design were approved do not deserve the approval any longer.</p> <p>(2) Serious shortcomings are found in the machinery and equipment manufactured according to the approved standardized design after being installed in ships.</p> <p><b><u>An1.4 Handling after Approval</u></b></p> <p><b><u>An1.4.1 Allocation of Machinery and Equipment to Ships</u></b>  <u>In case where the machinery and equipment for which the standardized design have been approved are allocated to NK-classed ships, the appropriate application form is to be submitted to the Society (Head Office), in triplicate, in place of the drawings and documents required by the rules.</u></p>		



Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p style="text-align: center;"><b>(Delete)</b></p>	<p style="text-align: center;"><b><u>Annex 9.1.3 PROCEDURES FOR THE APPROVAL OF PMS/CBM MANAGEMENT SOFTWARE</u></b></p> <p style="text-align: center;"><b><u>(Annex 9.1.3 Main text omitted)</u></b></p>	<p>In order to relocate "PROCEDURES FOR THE APPROVAL OF PMS/CBM MANAGEMENT SOFTWARE" to Chapter 1, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement is deleted.</p>

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Amended	Original	Remarks
<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part C HULL CONSTRUCTION AND EQUIPMENT</b></p> <p align="center"><b>Part 1 GENERAL HULL REQUIREMENTS</b></p> <p align="center"><b>Chapter 3 STRUCTURAL DESIGN PRINCIPLES</b></p> <p><b>3.8 Loading Manual and Loading Instruments</b></p> <p><b>3.8.3 Loading Instrument</b></p> <p><b>3.8.3.1 General</b></p> <p><b>1</b> (Omitted)</p> <p><b>2</b> The loading instrument is to be capable of performing its intended functions in the installed environment. A loading instrument complying with <b>Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> is recommended.</p> <p><b>3</b> (Omitted)</p>	<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part C HULL CONSTRUCTION AND EQUIPMENT</b></p> <p align="center"><b>Part 1 GENERAL HULL REQUIREMENTS</b></p> <p align="center"><b>Chapter 3 STRUCTURAL DESIGN PRINCIPLES</b></p> <p><b>3.8 Loading Manual and Loading Instruments</b></p> <p><b>3.8.3 Loading Instrument</b></p> <p><b>3.8.3.1 General</b></p> <p><b>1</b> (Omitted)</p> <p><b>2</b> The loading instrument is to be capable of performing its intended functions in the installed environment. A loading instrument complying with <b>Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> is recommended.</p> <p><b>3</b> (Omitted)</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Annex 3.2 GUIDANCE FOR THE USE OF FIBRE-REINFORCED PLASTIC (FRP)</b></p> <p><b>An2 Requirements for FRP Products</b></p> <p><b>An2.1 General Requirements for FRP Products</b></p> <p><b>An2.1.1 General Requirements</b>  <b>1</b> All <i>FRP</i> products are to be approved by the Society in accordance with <b>Chapter 9, Part 3</b> of the <b>Guidance for the Approval of Materials and Equipment for Marine Use</b> and are to be adequate for the service conditions.</p> <p><b>2</b> (Omitted)</p> <p><b>An2.2 Requirements for FRP Products Depending on Service and/or Locations</b></p> <p><b>An2.2.1 Requirements Depending on Service and/or Locations</b></p> <p><b>1</b> (Omitted)  <b>2</b> (Omitted)  <b>3</b> Where the fire integrity test and the flame spread test have been approved as the approval tests specified in <b>Chapter 9, Part 3</b> of the <b>Guidance for the Approval of Materials and Equipment for Marine Use</b> in accordance with <i>ASTM F 3059-14</i>, notwithstanding <b>Table An1</b>, applicable requirements for <i>FRP</i> products can be in accordance with <i>ASTM F 3059-14</i>.</p> <p><b>4</b> Notwithstanding the requirements in -1 and -3 above,</p>	<p><b>Annex 3.2 GUIDANCE FOR THE USE OF FIBRE-REINFORCED PLASTIC (FRP)</b></p> <p><b>An2 Requirements for FRP Products</b></p> <p><b>An2.1 General Requirements for FRP Products</b></p> <p><b>An2.1.1 General Requirements</b>  <b>1</b> All <i>FRP</i> products are to be approved by the Society in accordance with <b>Chapter 9, Part 2</b> of the <b>Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> and are to be adequate for the service conditions.</p> <p><b>2</b> (Omitted)</p> <p><b>An2.2 Requirements for FRP Products Depending on Service and/or Locations</b></p> <p><b>An2.2.1 Requirements Depending on Service and/or Locations</b></p> <p><b>1</b> (Omitted)  <b>2</b> (Omitted)  <b>3</b> Where the fire integrity test and the flame spread test have been approved as the approval tests specified in <b>Chapter 9, Part 2</b> of the <b>Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> in accordance with <i>ASTM F 3059-14</i>, notwithstanding <b>Table An1</b>, applicable requirements for <i>FRP</i> products can be in accordance with <i>ASTM F 3059-14</i>.</p> <p><b>4</b> Notwithstanding the requirements in -1 and -3 above,</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><i>FRP</i> products used for safe access to bows specified in <b>14.13.2</b> are to be tested and approved by the Society in accordance with the fire integrity test specified in <b>9.4.2-1(4), Chapter 9, Part 3 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>, the surface flammability test specified in <b>9.4.2-3(2)</b>, the smoke generation test specified in <b>9.4.2-4(2)</b>, and the toxicity test specified in <b>9.4.2-5(1)</b>.</p> <p><b>5</b> (Omitted)  <b>6</b> (Omitted)</p>	<p><i>FRP</i> products used for safe access to bows specified in <b>14.13.2</b> are to be tested and approved by the Society in accordance with the fire integrity test specified in <b>9.4.2-1(4), Chapter 9, Part 2 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>, the surface flammability test specified in <b>9.4.2-3(2)</b>, the smoke generation test specified in <b>9.4.2-4(2)</b>, and the toxicity test specified in <b>9.4.2-5(1)</b>.</p> <p><b>5</b> (Omitted)  <b>6</b> (Omitted)</p>	

**Table An1 Applicable Requirements for *FRP* Products**

Location	Service	Fire Integrity	Fire Retardance	Flame Spread and Surface Flammability	Smoke Generation	Toxicity
Cargo Pump Rooms	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>L</i> <sub>1</sub>	○	○	—	—
Cargo Holds	Walkways or areas that may be used for escape, or access for firefighting, emergency operation, or rescue	<i>V</i> <sub>1</sub>	○	—	—	—
	Walkways, catwalks, ladders, platforms, or access areas other than those described above	—	○	—	—	—
Cargo Tanks	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>See Note (3)</i>	○	—	—	—
Fuel Oil Tanks	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>See Note (3)</i>	○	—	—	—
Ballast Water Tanks	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>See Note (4)</i>	○	—	—	—
Cofferdams, void spaces, double bottoms, pipe tunnels, etc.	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>See Note (4)</i>	○	—	—	—
Accommodation, service spaces and control rooms	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>L</i> <sub>1</sub>	○	○	○	—

Changes due to the renaming of the “Guidance for the Approval”  
Changes due to the reorganization of the “Guidance for the Approval”

**Amended-Original Requirements Comparison Table**  
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Amended		Original					Remarks
Lifeboat embarkation or safe refuge stations in open deck areas	All personnel walkways, catwalks, ladders, platforms, or access areas	<i>L</i> <sub>2</sub>	○	—	—	—	
Open decks or semi-enclosed areas	Walkways or areas which may be used for escape or access for firefighting, emergency operation, or rescue <sup>(6)</sup>	<i>L</i> <sub>3</sub> <sup>(5)</sup>	○	—	—	—	
	Walkways, catwalks, ladders, platforms, or access areas other than those described above	—	○	—	—	—	
<p>(Notes)</p> <p>(1) Symbols  ○: The fire retardance test, flame spread and surface flammability test, smoke generation test and toxicity test specified in 9.4.2, Chapter 9, Part 23 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use are to be satisfied.  —: Not applicable</p> <p>(2) Abbreviations  <i>L</i><sub>1</sub>: <i>L</i><sub>1</sub> is the abbreviation for Fire Integrity Level 1. <i>FRP</i> products complying with Fire Integrity Level 1 are those specified in 9.1.2(4), Chapter 9, Part 23 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.  <i>L</i><sub>2</sub>: <i>L</i><sub>2</sub> is the abbreviation for Fire Integrity Level 2. <i>FRP</i> products complying with Fire Integrity Level 2 are those specified in 9.1.2(3), Chapter 9, Part 23 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.  <i>L</i><sub>3</sub>: <i>L</i><sub>3</sub> is the abbreviation for Fire Integrity Level 3. <i>FRP</i> products complying with Fire Integrity Level 3 are those specified in 9.1.2(2), Chapter 9, Part 23 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use”.</p> <p>(3) Fire integrity is not required in principle. However, if these spaces are normally entered and exited when underway, <i>FRP</i> of <i>L</i><sub>1</sub> is to be applied.</p> <p>(4) Fire integrity is not required in principle. However, if these spaces are normally entered and exited when underway, <i>FRP</i> of <i>L</i><sub>3</sub> is to be applied.</p> <p>(5) Vessels fitted with fixed foam fire-extinguishing systems and fixed dry chemical powder type extinguishing systems on deck require <i>FRP</i> of <i>L</i><sub>1</sub> integrity for foam system operational areas and access routes.</p> <p>(6) Excluding the safe access to the bow specified in 14.13.2.</p>							

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<b>Chapter 14 EQUIPMENT</b>	<b>Chapter 14 EQUIPMENT</b>	
<b>14.5 Equipment Numbers and Emergency Towing Arrangements</b>	<b>14.5 Equipment Numbers and Emergency Towing Arrangements</b>	
<b>14.5.2 Emergency Towing Arrangements</b>	<b>14.5.2 Emergency Towing Arrangements</b>	
<b>14.5.2.4 Soundness of Emergency Towing Arrangement</b> The emergency towing arrangement is to comply with the following (1) or (2).	<b>14.5.2.4 Soundness of Emergency Towing Arrangement</b> The emergency towing arrangement is to comply with the following (1) or (2).	Changes due to the renaming of the "Guidance for the Approval"
(1) Where a prototype of the emergency towing arrangement is arranged in the same manner as it is to be installed on board the ship, the prototype test is to be carried out in accordance with the requirements specified in <b>Chapter 6, Part 3 of Guidance for the Approval of Materials and Equipment for Marine Use</b> and a production test of individual components is to be carried out in accordance with the same requirements.	(1) Where a prototype of the emergency towing arrangement is arranged in the same manner as it is to be installed on board the ship, the prototype test is to be carried out in accordance with the requirements specified in <b>Chapter 6, Part 2 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> and a production test of individual components is to be carried out in accordance with the same requirements.	Changes due to the reorganization of the "Guidance for the Approval"
(2) (Omitted)	(2) (Omitted)	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part D MACHINERY INSTALLATIONS</b></p> <p><b>Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 General*</b></p> <p><b>3</b> For each type of reciprocating internal combustion engines, <u>type approval</u> is to be obtained by the engine designer (hereinafter referred to “licensor” in this Chapter) as specified separately by the Society.</p> <p><b>2.1.3 Drawings and Data*</b></p> <p><b>2</b> The drawings and data for the inspection and testing specified in -1 (the items represented by the mark ○ in <b>Table D2.1(a)</b> and <b>Table D2.1(b)</b>, hereinafter indicated the same way throughout this Chapter) are to be submitted in accordance with <b>2.1.4-1</b> by the engine manufacturer producing engines with the drawings and data whose <u>type approval</u> has been obtained in accordance with <b>2.1.1-3</b> (hereinafter referred to as “licensee” in this Chapter). Such drawings and data, however, may be submitted by the licensor in accordance with <b>2.1.4-2</b>.</p>	<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part D MACHINERY INSTALLATIONS</b></p> <p><b>Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 General*</b></p> <p><b>3</b> For each type of reciprocating internal combustion engines, <u>an approval of use</u> is to be obtained by the engine designer (hereinafter referred to “licensor” in this Chapter) as specified separately by the Society.</p> <p><b>2.1.3 Drawings and Data*</b></p> <p><b>2</b> The drawings and data for the inspection and testing specified in -1 (the items represented by the mark ○ in <b>Table D2.1(a)</b> and <b>Table D2.1(b)</b>, hereinafter indicated the same way throughout this Chapter) are to be submitted in accordance with <b>2.1.4-1</b> by the engine manufacturer producing engines with the drawings and data whose <u>approval of use</u> has been obtained in accordance with <b>2.1.1-3</b> (hereinafter referred to as “licensee” in this Chapter). Such drawings and data, however, may be submitted by the licensor in accordance with <b>2.1.4-2</b>.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks													
<b>Table D2.1(a) Drawings and Data for Approval</b>		Terminology alignment													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 55%; text-align: center;">Items</th> <th style="width: 35%; text-align: center;">For inspection and testing</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">(Omitted)</td> <td></td> </tr> <tr> <td></td> <td>                     (b) Category <i>B</i> turbochargers                     <ul style="list-style-type: none"> <li>i) Sectional assembly (including principal dimensions and materials of housing components for containment evaluation.)</li> <li>ii) Documentation of containment in the event of the disc fracture specified in 2.5.1-6</li> <li>iii) Documentation of following operational data and limitations                             <ul style="list-style-type: none"> <li>• Maximum permissible operating speed (<i>rpm</i>)</li> <li>• Maximum permissible exhaust gas temperature at the turbine inlet</li> <li>• Minimum lubrication oil inlet pressure</li> <li>• Maximum permissible vibration levels (self- and externally generated vibrations)</li> <li>• Alarm level for exhaust gas temperature at the turbine inlet (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil inlet pressure low alarm set point (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil outlet temperature high alarm set point (levels are also to be indicated on engine control system diagrams)</li> </ul> </li> <li>iv) Diagram of lubrication oil systems (diagrams included in piping arrangements fitted to engines may be accepted instead)</li> <li>v) Test report of type <u>approval</u> test (only for type <u>approval</u> tests)</li> <li>vi) Test procedure (only for type <u>approval</u> tests)</li> </ul> </td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">(Omitted)</td> <td></td> </tr> </tbody> </table>			Items	For inspection and testing		(Omitted)			(b) Category <i>B</i> turbochargers <ul style="list-style-type: none"> <li>i) Sectional assembly (including principal dimensions and materials of housing components for containment evaluation.)</li> <li>ii) Documentation of containment in the event of the disc fracture specified in 2.5.1-6</li> <li>iii) Documentation of following operational data and limitations                             <ul style="list-style-type: none"> <li>• Maximum permissible operating speed (<i>rpm</i>)</li> <li>• Maximum permissible exhaust gas temperature at the turbine inlet</li> <li>• Minimum lubrication oil inlet pressure</li> <li>• Maximum permissible vibration levels (self- and externally generated vibrations)</li> <li>• Alarm level for exhaust gas temperature at the turbine inlet (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil inlet pressure low alarm set point (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil outlet temperature high alarm set point (levels are also to be indicated on engine control system diagrams)</li> </ul> </li> <li>iv) Diagram of lubrication oil systems (diagrams included in piping arrangements fitted to engines may be accepted instead)</li> <li>v) Test report of type <u>approval</u> test (only for type <u>approval</u> tests)</li> <li>vi) Test procedure (only for type <u>approval</u> tests)</li> </ul>			(Omitted)		
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	(Omitted)														



**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines</b></p> <p><b>1</b> Reciprocating internal combustion engines are to be approved in accordance with the following <b>(1)</b> to <b>(6)</b>:</p> <p>(1) Development of documents and data for engine production</p> <p>(a) (Omitted)</p> <p>(b) Each type of reciprocating internal combustion engine is to be provided with a certificate of <u>type approval</u> obtained by the licensor in accordance with 2.1.1-3. For the first engine of a type or for those with no service records, the process of an approval of use and the approval process for production by the licensee may be performed simultaneously.</p> <p>(c) The licensor is to review the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained for the application and develop, if necessary, application specific drawings and data for production of reciprocating internal combustion engines for the use of the licensee in developing the reciprocating internal combustion engine specific production drawings and data for the inspection and testing specified in 2.1.3-1.</p> <p>(d) If substantive modifications to the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained have been made in the drawings and data of reciprocating internal combustion engines to be</p>	<p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines</b></p> <p><b>1</b> Reciprocating internal combustion engines are to be approved in accordance with the following <b>(1)</b> to <b>(6)</b>:</p> <p>(1) Development of documents and data for engine production</p> <p>(a) (Omitted)</p> <p>(b) Each type of reciprocating internal combustion engine is to be provided with a certificate of <u>approval of use</u> obtained by the licensor in accordance with 2.1.1-3. For the first engine of a type or for those with no service records, the process of an approval of use and the approval process for production by the licensee may be performed simultaneously.</p> <p>(c) The licensor is to review the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained for the application and develop, if necessary, application specific drawings and data for production of reciprocating internal combustion engines for the use of the licensee in developing the reciprocating internal combustion engine specific production drawings and data for the inspection and testing specified in 2.1.3-1.</p> <p>(d) If substantive modifications to the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained have been made in the drawings and data of reciprocating internal combustion engines to be</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>produced, the affected drawings and data are to be resubmitted to the Society as specified separately by the Society.</p> <p>(2) Drawings and data for the inspection and testing of reciprocating internal combustion engines</p> <p>(a) The licensee is to develop the drawings and data for the inspection and testing specified in <b>2.1.3-1</b> and a comparison list of these drawings and data to the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained by the licensor and submit these drawings and the comparison list to the Society.</p> <p>(b) As for the drawings and data for the inspection and testing specified in <b>2.1.3-1</b>, if there are differences in the technical content on the licensee’s production drawings and data of the reciprocating internal combustion engine compared to the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained by the licensor, the licensee is to submit “Confirmation of the licensor’s acceptance of licensee’s modifications” approved by the licensor and signed by the licensee and licensor. If the licensor acceptance is not confirmed, the reciprocating internal combustion engine manufactured by the licensee is to be regarded as a different engine type and is <b>2.1.1-3</b> is to apply to the reciprocating internal combustion engine.</p> <p>((c) to (e) are omitted.)</p>	<p>produced, the affected drawings and data are to be resubmitted to the Society as specified separately by the Society.</p> <p>(2) Drawings and data for the inspection and testing of reciprocating internal combustion engines</p> <p>(a) The licensee is to develop the drawings and data for the inspection and testing specified in <b>2.1.3-1</b> and a comparison list of these drawings and data to the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained by the licensor and submit these drawings and the comparison list to the Society.</p> <p>(b) As for the drawings and data for the inspection and testing specified in <b>2.1.3-1</b>, if there are differences in the technical content on the licensee’s production drawings and data of the reciprocating internal combustion engine compared to the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained by the licensor, the licensee is to submit “Confirmation of the licensor’s acceptance of licensee’s modifications” approved by the licensor and signed by the licensee and licensor. If the licensor acceptance is not confirmed, the reciprocating internal combustion engine manufactured by the licensee is to be regarded as a different engine type and is <b>2.1.1-3</b> is to apply to the reciprocating internal combustion engine.</p> <p>((c) to (e) are omitted.)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p>by the <u>type approval test</u>.            In the case of reciprocating internal combustion engine with an application for approval of use dated before 1 July 2016 which is an engine type that does not have the results of temperature measurements required by the <u>type approval test</u>, temperature measurements are to be performed by a procedure deemed appropriate by the Society.            ((7) and (8) are omitted.)</p>	<p><u>test</u>.            In the case of reciprocating internal combustion engine with an application for approval of use dated before 1 July 2016 which is an engine type that does not have the results of temperature measurements required by the <u>type test</u>, temperature measurements are to be performed by a procedure deemed appropriate by the Society.            ((7) and (8) are omitted.)</p>	

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**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><b>Table D2.7 Programme for Shop Trials of Engines</b>  <b>(Table is omitted.)</b></p> <p>Notes:</p> <ol style="list-style-type: none"> <li>(1) After testing has been completed, the fuel delivery system is to be blocked so as to limit the engines to run at not more than 100 % power, unless intermittent overload power is approved by the Society. In the case of propulsion engines also driving power take-off generators, the fuel delivery system is to be adjusted so that overload of generator (110 % power) can be given in service and the electrical protection of downstream system components is activated before the engine stalls.</li> <li>(2) After testing has been completed, the fuel delivery system is to be adjusted such that overload (110 % power) can be given in service after installation on board so that the governing characteristics (including the activation of generator protective devices) can be fulfilled at all times.</li> <li>(3) For dual fuel engines, tests in the gas mode are not required in accordance with 2.6.1-3(2).</li> <li>(4) Submission of test reports for identical engines and turbocharger configurations proving their compatibility for over-loaded operation may be accepted as substitutions for the 110 % power run.</li> <li>(5) In the case of propulsion engines also driving power take-off generators, tests are to be carried out at <math>n_0</math> for 15 <i>minutes</i> after having reached a steady operating condition.</li> <li>(6) The sequence is to be selected by the engine manufacturer.</li> <li>(7) A shorter time may be considered by the Society provided that the time specified in 2.6.1-2(3) is allowed.</li> <li>(8) Only for variable speed engines.</li> <li>(9) The test item applies only to direct reversible engines.</li> <li>(10) Only for engines for which intermittent overload is approved, and tests are to be for the duration agreed upon with the manufacturer.</li> <li>(11) The scope of the open-up inspection is to be as deemed appropriate by the surveyor. The omission of the open-up inspection may be considered by the Society provided that all of the following (a) through (g) are met: <ol style="list-style-type: none"> <li>(a) It is not the open-up inspection to be carried out during the <u>type</u> approval test specified in <b>Chapter 8, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>.</li> <li>(b) No abnormality is found in the temperature measurement for each bearing of the main bearings and the crank pin bearings after the load test, and in the visual inspection of the inner surfaces of the cylinder liners from the inspection ports of the crankcase. (In the case of a 2-stroke engine, the cylinder liners, pistons, piston rings and</li> </ol> </li> </ol>		<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

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Amended	Original	Remarks
<p>piston rods are to be inspected from the scavenging space.)</p> <p>(c) No abnormality is found in the visual inspection of the lubrication oil after the load test (including the visual inspection of the filter in cases where the open-up of the strainer is reasonable).</p> <p>(d) Flushing of the parts through which the lubrication oil passes is carried out during the manufacturing process.</p> <p>(e) The manufacturer of the reciprocating internal combustion engine is approved by the Society in accordance with the <b>Rules for Approval of Manufacturers and Service Suppliers</b>.</p> <p>(f) There is agreement between the involved parties. (manufacturer, shipyard, prospective owner, etc.)</p> <p>(g) Other items deemed necessary by the Society.</p> <p><b>Chapter 12 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES</b></p> <p><b>12.4 Connection and Forming of Piping Systems</b></p> <p><b>12.4.1 Welding of Piping Systems</b></p> <p><b>2</b> Welding consumables used for the welding work of pipes belonging to Group I and Group II are to be <u>approved</u> by the Society in accordance with the requirements in <b>Part M</b>, as specified in <b>11.1.1-2</b>. In cases where compliance with this requirement, however, is deemed impractical, welding consumables that satisfy the following (1) and (2) may be accepted:</p> <p>((1) and (2) are omitted.)</p>	<p><b>Chapter 12 PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES</b></p> <p><b>12.4 Connection and Forming of Piping Systems</b></p> <p><b>12.4.1 Welding of Piping Systems</b></p> <p><b>2</b> Welding consumables used for the welding work of pipes belonging to Group I and Group II are to be <u>type-approved</u> by the Society in accordance with the requirements in <b>Part M</b>, as specified in <b>11.1.1-2</b>. In cases where compliance with this requirement, however, is deemed impractical, welding consumables that satisfy the following (1) and (2) may be accepted:</p> <p>((1) and (2) are omitted.)</p>	<p>Terminology alignment</p>

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Amended	Original	Remarks
<p>Table D12.8 Application Classifications of Mechanical Joints<sup>(1)</sup></p> <p>(Table is omitted.)</p> <p>Notes:</p> <p>(1) +: Application is allowed; -: Application is not allowed</p> <p>(2) Fire endurance test in accordance with 9.3.2(6), Part 6 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</p> <p>(3) If mechanical joints include any components which readily deteriorate in case of fire, the following (4) to (7) apply.</p> <p>(4) Fire endurance test is to be applied when mechanical joints are installed in pump rooms and open decks.</p> <p>(5) Slip-on joints are not accepted inside machinery spaces of category <i>A</i> or accommodation spaces. May be accepted in machinery spaces other than those of category <i>A</i> provided that the joints are located in easily visible and accessible positions (refer to <i>MSC/Circ.734</i>).</p> <p>(6) Fire resistant types approved by the Society except in cases where such mechanical joints are installed on open decks as defined in 9.2.3-2(10), Part R of the Rules; this excludes spaces in the cargo areas of tankers, ships carrying liquefied gases in bulk and ships carrying dangerous chemicals in bulk (as defined in 3.2.6, Part R, 1.1.4(6), Part N and 1.3.1(4), Part S), but not used for fuel oil lines, fire extinguishing systems and fire mains.</p> <p>(7) Fire endurance test is to be applied when mechanical joints are installed inside machinery spaces of category <i>A</i></p> <p>(8) Only above the freeboard deck.</p> <p>(9) Slip type slip-on joints as shown in Fig. D12.1 may be used for pipes on deck with a design pressure of 1.0 MPa or less.</p> <p>(10) Piping where mechanical joints are used is also to comply with the requirements specified in 13.2.4-4.</p> <p>(11) Piping where slip joints are used is also to comply with the requirements specified in 13.2.4-6.</p> <p>(12) If a connection has passed the “30 min dry” test, it is considered suitable also for applications for which the “8 min dry + 22 min wet” and/or “30 min wet” tests are required. If a connection has passed the “8 min dry+22 min wet” test, it is considered suitable also for applications for which the “30 min wet” test is required.</p>		<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Chapter 16 WINDLASSES AND MOORING WINCHES</b></p> <p><b>16.2 Windlasses</b></p> <p><b>16.2.3 Materials and Fabrication*</b>  <b>2 Welded fabrication</b>  Welded fabrication is to comply with the following requirements:  ((1) to (3) are omitted.)  (4) Welding consumables are to be <u>approved</u> by the Society in accordance with the requirements in <b>Part M</b>. In cases where compliance with this requirement, however, is deemed impractical, welding consumables that satisfy the following (a) and (b) may be accepted.  ((a) and (b) are omitted.)</p> <p><b>Chapter 18 AUTOMATIC AND REMOTE CONTROL</b></p> <p><b>18.7 Tests</b></p> <p><b>18.7.2 <u>Type Approval</u></b>  <b>1</b> In cases where automatic devices and automatic equipment have passed the environmental tests specified in <b>18.7.1</b>, they will receive <u>type approval</u> from the Society; and,</p>	<p><b>Chapter 16 WINDLASSES AND MOORING WINCHES</b></p> <p><b>16.2 Windlasses</b></p> <p><b>16.2.3 Materials and Fabrication*</b>  <b>2 Welded fabrication</b>  Welded fabrication is to comply with the following requirements:  ((1) to (3) are omitted.)  (4) Welding consumables are to be <u>type-approved</u> by the Society in accordance with the requirements in <b>Part M</b>. In cases where compliance with this requirement, however, is deemed impractical, welding consumables that satisfy the following (a) and (b) may be accepted.  ((a) and (b) are omitted.)</p> <p><b>Chapter 18 AUTOMATIC AND REMOTE CONTROL</b></p> <p><b>18.7 Tests</b></p> <p><b>18.7.2 <u>Approval of Use</u></b>  <b>1</b> In cases where automatic devices and automatic equipment have passed the environmental tests specified in <b>18.7.1</b>, they will receive <u>approval of use</u> from the Society; and,</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p>upon request from the manufacturer, the Society will make this information public.</p> <p><b>2</b> With respect to all automatic devices and automatic equipment which have already received <u>type approval</u> from the Society, a part or all of the environmental test specified in <b>18.7.1(1)</b> may be omitted.</p>	<p>upon request from the manufacturer, the Society will make this information public.</p> <p><b>2</b> With respect to all automatic devices and automatic equipment which have already received <u>approval of use</u> from the Society, a part or all of the environmental test specified in <b>18.7.1(1)</b> may be omitted.</p>	<p>Terminology alignment</p>

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Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
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Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>2.4 Accessory Equipment</b></p> <p><b>2.4.1 Charge Air Systems and Exhaust Gas Systems</b>  <b>6</b> Explosion relief devices for air inlet and exhaust manifold are to be <u>type approved</u> according to <b>Chapter 13, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>8</b> The arrangement of the explosion relief devices is to be determined in the risk analysis required by <b>8.3, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> and reflected in the safety concept.</p> <p><b>2.4.2 Gas Pipes</b>  <b>5</b> For piping attached to gas-fuelled engines, the following (1) to (8) also apply.</p> <p>(1) (Omitted)  (2) Other connections as mentioned in <b>7.3.6-4(4), Part GF of the Rules</b> may be accepted subject to <u>type approval</u> in accordance with the requirements of <b>Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p>((3) to (8) are omitted.)</p>	<p><b>2.4 Accessory Equipment</b></p> <p><b>2.4.1 Charge Air Systems and Exhaust Gas Systems</b>  <b>6</b> Explosion relief devices for air inlet and exhaust manifold are to be <u>approved</u> according to <b>Chapter 13, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p><b>8</b> The arrangement of the explosion relief devices is to be determined in the risk analysis required by <b>8.3, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> and reflected in the safety concept.</p> <p><b>2.4.2 Gas Pipes</b>  <b>5</b> For piping attached to gas-fuelled engines, the following (1) to (8) also apply.</p> <p>(1) (Omitted)  (2) Other connections as mentioned in <b>7.3.6-4(4), Part GF of the Rules</b> may be accepted subject to <u>approval of use</u> in accordance with the requirements of <b>Chapter 9, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p>((3) to (8) are omitted.)</p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<b>Chapter 4 TESTS</b>	<b>Chapter 4 TESTS</b>	
<p><b>4.1 <u>Type Approval</u></b></p> <p>For each type of gas-fuelled engine, <u>type approval</u> is to be obtained by the engine designer (licensor) in accordance with requirements specified in <b>Chapter 8, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p><b>4.1 <u>Approval of Use</u></b></p> <p>For each type of gas-fuelled engine, <u>approval of use</u> is to be obtained by the engine designer (licensor) in accordance with requirements specified in <b>Chapter 8, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p>	<p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part HELECTRICAL INSTALLATIONS</b></p> <p><b>Annex 2.11.1-2 Accumulator Battery Systems</b></p> <p><b>1.1 General</b></p> <p><b>1.1.3 Submission of Drawings and Documents</b></p> <p>2 The drawings for approval and documents for reference to be submitted to the Society for the designs of accumulator battery systems and their components (e.g. cells and modules) are as follows. However, other drawings and documents may be required when deemed necessary by the Society.</p> <p>(1) (Omitted)</p> <p>(2) Documents for reference</p> <p>(a) Test reports for cells or modules (not required for cells or modules of types used in accumulator battery systems which have already received <u>type approval</u>)</p> <p>(b) Test reports for accumulator battery systems (not required for accumulator battery systems of a type which has received <u>type approval</u>)</p> <p>(c) (Omitted)</p>	<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part HELECTRICAL INSTALLATIONS</b></p> <p><b>Annex 2.11.1-2 Accumulator Battery Systems</b></p> <p><b>1.1 General</b></p> <p><b>1.1.3 Submission of Drawings and Documents</b></p> <p>2 The drawings for approval and documents for reference to be submitted to the Society for the designs of accumulator battery systems and their components (e.g. cells and modules) are as follows. However, other drawings and documents may be required when deemed necessary by the Society.</p> <p>(1) (Omitted)</p> <p>(2) Documents for reference</p> <p>(a) Test reports for cells or modules (not required for cells or modules of types used in accumulator battery systems which have already received <u>approval of use</u>)</p> <p>(b) Test reports for accumulator battery systems (not required for accumulator battery systems of a type which has received <u>approval of use</u>)</p> <p>(c) (Omitted)</p>	<p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
 (Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>1.3 Additional Requirements for Electrical Propulsion, Main Electrical Power Source or Emergency Electrical Power Source Purposes</b></p> <p><b>1.3.7 Shop Tests</b></p> <p>1 The electrical equipment specified below is to be tested in accordance with <b>18.7.1, Part D</b> at manufacturing plants or other locations. However, with respect to equipment which has been already received <u>type approval</u> from the Society, some or all of the environmental tests specified in <b>18.7.1(1), Part D</b> may be omitted.                      ((1) and (2) are omitted.)</p> <p><b>1.4 Accumulator Battery Systems</b></p> <p><b>1.4.3 Shop Tests</b></p> <p>1 Cells and modules of accumulator battery systems are to be tested as specified in <b>Table 1</b> at manufacturing plants or other locations. However, all the tests may be omitted for cells and modules of types used in accumulator battery systems that have already received approval of use from the Society in accordance with <b>Chapter 9, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p>2 Control and protection functions of <i>BMS</i> for accumulator battery systems are to be tested as specified in <b>Table 2</b> at manufacturing plants or other locations. However, all the tests may be omitted for accumulator battery systems that have already received approval of use from the Society in accordance with <b>Chapter 9, Part 7 of the Guidance for the</b></p>	<p><b>1.3 Additional Requirements for Electrical Propulsion, Main Electrical Power Source or Emergency Electrical Power Source Purposes</b></p> <p><b>1.3.7 Shop Tests</b></p> <p>1 The electrical equipment specified below is to be tested in accordance with <b>18.7.1, Part D</b> at manufacturing plants or other locations. However, with respect to equipment which has been already received <u>approval of use</u> from the Society, some or all of the environmental tests specified in <b>18.7.1(1), Part D</b> may be omitted.                      ((1) and (2) are omitted.)</p> <p><b>1.4 Accumulator Battery Systems</b></p> <p><b>1.4.3 Shop Tests</b></p> <p>1 Cells and modules of accumulator battery systems are to be tested as specified in <b>Table 1</b> at manufacturing plants or other locations. However, all the tests may be omitted for cells and modules of types used in accumulator battery systems that have already received approval of use from the Society in accordance with <b>Chapter 9, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>.</p> <p>2 Control and protection functions of <i>BMS</i> for accumulator battery systems are to be tested as specified in <b>Table 2</b> at manufacturing plants or other locations. However, all the tests may be omitted for accumulator battery systems that have already received approval of use from the Society in accordance with <b>Chapter 9, Part 7 of the Guidance for the</b></p>	<p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><b>Approval of Materials and Equipment for Marine Use.</b></p> <p><b>4</b> Accumulator battery systems are to be tested as specified in <b>18.7.1, Part D</b> at manufacturing plants. It is acceptable for environmental tests to use only those elements (e.g. battery packs) of accumulator battery systems installed on board ships that have the minimum functions required for verification of tests. However, some of all of the environmental tests specified in <b>18.7.1(1), Part D</b> may be omitted for accumulator battery systems which have already received <u>type approval</u> from the Society.</p>	<p><b>Approval and <u>Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p><b>4</b> Accumulator battery systems are to be tested as specified in <b>18.7.1, Part D</b> at manufacturing plants. It is acceptable for environmental tests to use only those elements (e.g. battery packs) of accumulator battery systems installed on board ships that have the minimum functions required for verification of tests. However, some of all of the environmental tests specified in <b>18.7.1(1), Part D</b> may be omitted for accumulator battery systems which have already received <u>approval of use</u> from the Society.</p>	Terminology alignment

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part L EQUIPMENT</b></p> <p><b>Chapter 2 ANCHORS</b></p> <p><b>2.2 Anchors Used for Positioning Systems</b></p> <p><b>2.2.4 Processes of Manufacture and Constructions</b></p> <p>2 For anchors intended for use on vessels or floating offshore facilities fixed or positioned at specific sea areas for long periods of time, detailed data relating to performance, etc. are to be submitted for Society approval in accordance with <b>Chapter 1A, Part <u>3</u> of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>2.2.10 Visual Inspections and Non-destructive Tests*</b></p> <p>1 Anchors are to be subjected to and pass visual inspections and the non-destructive tests specified in (1) to (4) below. Such inspections and tests are, however, to be carried out after proof tests are completed.</p> <p>((1) to (3) are omitted.)</p> <p>(4) For anchors complying with the requirements in <b>Chapter 1A, Part <u>3</u> of the Guidance for the Approval of Materials and Equipment for Marine</b></p>	<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part L EQUIPMENT</b></p> <p><b>Chapter 2 ANCHORS</b></p> <p><b>2.2 Anchors Used for Positioning Systems</b></p> <p><b>2.2.4 Processes of Manufacture and Constructions</b></p> <p>2 For anchors intended for use on vessels or floating offshore facilities fixed or positioned at specific sea areas for long periods of time, detailed data relating to performance, etc. are to be submitted for Society approval in accordance with <b>Chapter 1A, Part <u>2</u> of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p><b>2.2.10 Visual Inspections and Non-destructive Tests*</b></p> <p>1 Anchors are to be subjected to and pass visual inspections and the non-destructive tests specified in (1) to (4) below. Such inspections and tests are, however, to be carried out after proof tests are completed.</p> <p>((1) to (3) are omitted.)</p> <p>(4) For anchors complying with the requirements in <b>Chapter 1A, Part <u>2</u> of the Guidance for the Approval <u>and Type Approval</u> of Materials and</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>



**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>Use or 2.2.9-4 above, ultrasonic testing is to be carried out for all full penetration welding in addition to the tests specified in (3) above.</p>	<p><b>Equipment for Marine Use</b> or 2.2.9-4 above, ultrasonic testing is to be carried out for all full penetration welding in addition to the tests specified in (3) above.</p>	

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Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part N SHIPS CARRYING LIQUEFIED GASES IN BULK</b></p> <p align="center"><b>Annex 16.1.1-3 GAS-FUELLED ENGINES</b></p> <p align="center"><b>Chapter 2 CONSTRUCTION AND EQUIPMENT OF GAS-FUELLED ENGINES</b></p> <p><b>2.2 Construction and Strength</b></p> <p><b>2.2.3 Crankcase</b>  <b>1</b> Crankcase explosion relief valves are to be installed in accordance with 2.4.3, Part D of the Rules. Refer also to 10.3.1-2, Part GF of the Rules. For engines not covered by 2.4.3, Part D of the Rules, the detailed evaluation required by 8.3, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use is to determine if crankcase explosion relief valves are necessary.</p>	<p align="center"><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part N SHIPS CARRYING LIQUEFIED GASES IN BULK</b></p> <p align="center"><b>Annex 16.1.1-3 GAS-FUELLED ENGINES</b></p> <p align="center"><b>Chapter 2 CONSTRUCTION AND EQUIPMENT OF GAS-FUELLED ENGINES</b></p> <p><b>2.2 Construction and Strength</b></p> <p><b>2.2.3 Crankcase</b>  <b>1</b> Crankcase explosion relief valves are to be installed in accordance with 2.4.3, Part D of the Rules. Refer also to 10.3.1-2, Part GF of the Rules. For engines not covered by 2.4.3, Part D of the Rules, the detailed evaluation required by 8.3, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use is to determine if crankcase explosion relief valves are necessary.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>2.4 Accessory Equipment</b></p> <p><b>2.4.1 Charge Air Systems and Exhaust Gas Systems</b>  <b>6</b> Explosion relief devices for air inlet and exhaust manifold are to be <u>type</u> approved according to <b>Chapter 13, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>8</b> The arrangement of the explosion relief devices is to be determined in the risk analysis required by <b>8.3, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> and reflected in the safety concept.</p> <p><b>2.4.2 Gas Pipes</b>  <b>4</b> For piping attached to gas-fuelled engines, the following (1) to (8) also apply.</p> <p>(1) (Omitted)  (2) Other connections as mentioned in <b>7.3.6-4(4), Part GF of the Rules</b> may be accepted subject to <u>type approval</u> in accordance with the requirements of <b>Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b>  ((3) to (8) are omitted.)</p>	<p><b>2.4 Accessory Equipment</b></p> <p><b>2.4.1 Charge Air Systems and Exhaust Gas Systems</b>  <b>6</b> Explosion relief devices for air inlet and exhaust manifold are to be approved according to <b>Chapter 13, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p><b>8</b> The arrangement of the explosion relief devices is to be determined in the risk analysis required by <b>8.3, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> and reflected in the safety concept.</p> <p><b>2.4.2 Gas Pipes</b>  <b>4</b> For piping attached to gas-fuelled engines, the following (1) to (8) also apply.</p> <p>(1) (Omitted)  (2) Other connections as mentioned in <b>7.3.6-4(4), Part GF of the Rules</b> may be accepted subject to <u>approval of use</u> in accordance with the requirements of <b>Chapter 9, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b>  ((3) to (8) are omitted.)</p>	<p>Changes due to the renaming of the “Guidance for the Approval”  Terminology alignment  Changes due to the renaming of the “Guidance for the Approval”</p> <p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<b>Chapter 5 TESTS</b>	<b>Chapter 5 TESTS</b>	
<p><b>5.1 <u>Type Approval</u></b></p> <p>For each type of gas-fuelled engine, <u>type approval</u> is to be obtained by the engine designer (licensor) in accordance with requirements specified in <b>Chapter 8, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p><b>5.1 <u>Approval of Use</u></b></p> <p>For each type of gas-fuelled engine, <u>approval of use</u> is to be obtained by the engine designer (licensor) in accordance with requirements specified in <b>Chapter 8, Part 6 of the Guidance for the Approval and <u>Type Approval</u> of Materials and Equipment for Marine Use.</b></p>	<p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part X COMPUTER-BASED SYSTEMS</b></p> <p><b>Chapter 2 PLANS, DOCUMENTS AND TESTS</b></p> <p><b>2.1 Submission of Plans and Documents</b></p> <p><b>2.1.1 Submission of Plans and Documents</b> The following drawings and data are, in principle, to be submitted.</p> <p>(1) Plans and documents for approval:</p> <p>(a) Plans and documents for computer-based systems subject to <b>Chapter 3</b> that are required to be submitted for approval purposes are specified in <b>2.2.1</b> according to system category. Summaries of said plans and documents are shown in <b>Tables X2.1 and X2.2</b>. However, for computer-based systems <u>type approved</u> in accordance with <b>Chapter 8, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>, plans and documents submitted for the <u>type approval</u> may be reutilized.</p> <p>(b) Plans and documents for computer-based systems subject to <b>Chapter 4</b> that are required to</p>	<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part X COMPUTER-BASED SYSTEMS</b></p> <p><b>Chapter 2 PLANS, DOCUMENTS AND TESTS</b></p> <p><b>2.1 Submission of Plans and Documents</b></p> <p><b>2.1.1 Submission of Plans and Documents</b> The following drawings and data are, in principle, to be submitted.</p> <p>(1) Plans and documents for approval:</p> <p>(a) Plans and documents for computer-based systems subject to <b>Chapter 3</b> that are required to be submitted for approval purposes are specified in <b>2.2.1</b> according to system category. Summaries of said plans and documents are shown in <b>Tables X2.1 and X2.2</b>. However, for computer-based systems approved <u>for use</u> in accordance with <b>Chapter 8, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>, plans and documents submitted for the <u>approval of use</u> may be reutilized.</p> <p>(b) Plans and documents for computer-based systems subject to <b>Chapter 4</b> that are required to</p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>be submitted for approval purposes are specified in 4.4.1(1), (2), (3), (4) and (6). Summaries of said plans and documents are shown in <b>Table X2.3</b>. However, for computer-based systems <u>type approved</u> in accordance with <b>Chapter 10, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>, where appropriate “Test Reports” specified in 4.4.1(10) are submitted, plans and documents submitted for the <u>type approval</u> may be reutilized except for “Computer-based Systems Asset Inventory” specified in 4.4.1(1) and “Topology Diagram” specified in 4.4.1(2).</p> <p>(c) (omitted)  (d) (omitted)</p> <p>(2) Plans and documents for reference:</p> <p>(a) Plans and documents for computer-based systems subject to <b>Chapter 3</b> that are required to be submitted for reference purposes are specified in 2.2.1 according to system category. Summaries of said plans and documents are shown in <b>Tables X2.1 and X2.2</b>. However, for computer-based systems <u>type approved</u> in accordance with <b>Chapter 8, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>, plans and documents submitted for the <u>type approval</u> may be reutilized except for the “list of system categorisations” specified in 2.2.1-3(3).</p> <p>(b) Plans and documents for computer-based</p>	<p>be submitted for approval purposes are specified in 4.4.1(1), (2), (3), (4) and (6). Summaries of said plans and documents are shown in <b>Table X2.3</b>. However, for computer-based systems approved <u>for use</u> in accordance with <b>Chapter 10, Part 7 of the Guidance for the Approval and <u>Type Approval</u> of Materials and Equipment for Marine Use</b>, where appropriate “Test Reports” specified in 4.4.1(10) are submitted, plans and documents submitted for the <u>approval of use</u> may be reutilized except for “Computer-based Systems Asset Inventory” specified in 4.4.1(1) and “Topology Diagram” specified in 4.4.1(2).</p> <p>(c) (omitted)  (d) (omitted)</p> <p>(2) Plans and documents for reference:</p> <p>(a) Plans and documents for computer-based systems subject to <b>Chapter 3</b> that are required to be submitted for reference purposes are specified in 2.2.1 according to system category. Summaries of said plans and documents are shown in <b>Tables X2.1 and X2.2</b>. However, for computer-based systems approved <u>for use</u> in accordance with <b>Chapter 8, Part 7 of the Guidance for the Approval and <u>Type Approval</u> of Materials and Equipment for Marine Use</b>, plans and documents submitted for the <u>approval of use</u> may be reutilized except for the “list of system categorisations” specified in 2.2.1-3(3).</p> <p>(b) Plans and documents for computer-based</p>	<p>Changes due to the renaming of the “Guidance for the Approval”  Terminology alignment</p> <p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”  Terminology alignment</p> <p>Changes due to the</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks										
<p>systems subject to <b>Chapter 4</b> that are required to be submitted for reference purposes are specified in <b>4.4.1(5), (7), (8) and (9)</b>. Summaries of said plans and documents are shown in <b>Table X2.3</b>. However, for computer-based systems <u>type approved</u> in accordance with <b>Chapter 10, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>, where appropriate “Test Reports” specified in <b>4.4.1(10)</b> are submitted, plans and documents submitted for the <u>type approval</u> may be reutilized.</p> <p>(c) Other plans and documents considered necessary by the Society</p>	<p>systems subject to <b>Chapter 4</b> that are required to be submitted for reference purposes are specified in <b>4.4.1(5), (7), (8) and (9)</b>. Summaries of said plans and documents are shown in <b>Table X2.3</b>. However, for computer-based systems approved <u>for use</u> in accordance with <b>Chapter 10, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>, where appropriate “Test Reports” specified in <b>4.4.1(10)</b> are submitted, plans and documents submitted for the <u>approval of use</u> may be reutilized.</p> <p>(c) Other plans and documents considered necessary by the Society</p>	<p>renaming of the “Guidance for the Approval” Terminology alignment</p>										
<p><b>Table X2.3 Supplier’s Plans and Documents to be Submitted</b>  <b>(Related to Chapter 4 CYBER RESILIENCE OF ON-BOARD SYSTEMS AND EQUIPMENT)</b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 0 auto;"> <thead> <tr> <th style="width: 5%; text-align: center;">#</th> <th style="width: 30%; text-align: center;">Document (Referenced requirements)</th> <th style="width: 40%; text-align: center;">Requirements (Referenced requirements)</th> <th style="width: 10%; text-align: center;">Reference</th> <th style="width: 15%; text-align: center;">Approval</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">(Omitted)</td> </tr> </tbody> </table> <p>(Notes)                      Approval: Plans and documents to be submitted for approval                      Reference: Plans and documents to be submitted for reference                      ○: Submission required                      (1): Submitted when approval of use has not been obtained in accordance with <b>Chapter 10, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>                      (2): Submitted when approval of use has been obtained in accordance with <b>Chapter 10, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b></p>			#	Document (Referenced requirements)	Requirements (Referenced requirements)	Reference	Approval	(Omitted)				
#	Document (Referenced requirements)	Requirements (Referenced requirements)	Reference	Approval								
(Omitted)												
		<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>										

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>2.2 Tests</b></p> <p><b>2.2.1 Tests (Related to Chapter 3 COMPUTER BASED SYSTEMS)</b></p> <p><b>2</b> Verification Items for System Suppliers ((1) to (3) are omitted.)</p> <p>(4) Environmental compliance of hardware components (see 3.4.2-4)</p> <p>(a) Category I: Environmental tests may be omitted. However, <u>type approval</u> certificates issued in accordance with <b>Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> or documents proving the passing of the environmental tests specified in <b>18.7.1(1), Part D</b> are to be submitted for reference when deemed necessary by Society (see 3.3.2).</p> <p>(b) Categories II and III: <u>Type approval</u> certificates issued in accordance with <b>Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> or documents proving the passing of the environmental tests specified in <b>18.7.1(1), Part D</b> are to be submitted for reference.</p> <p>((5) to (8) are omitted.)</p>	<p><b>2.2 Tests</b></p> <p><b>2.2.1 Tests (Related to Chapter 3 COMPUTER BASED SYSTEMS)</b></p> <p><b>2</b> Verification Items for System Suppliers ((1) to (3) are omitted.)</p> <p>(4) Environmental compliance of hardware components (see 3.4.2-4)</p> <p>(a) Category I: Environmental tests may be omitted. However, certificates issued in accordance with <b>Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> or documents proving the passing of the environmental tests specified in <b>18.7.1(1), Part D</b> are to be submitted for reference when deemed necessary by Society (see 3.3.2).</p> <p>(b) Categories II and III: <u>Certificates</u> issued in accordance with <b>Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> or documents proving the passing of the environmental tests specified in <b>18.7.1(1), Part D</b> are to be submitted for reference.</p> <p>((5) to (8) are omitted.)</p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>



Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Chapter 3      COMPUTER-BASED SYSTEMS</b></p> <p><b>3.1 General</b></p> <p><b>3.1.3 Structure</b> 1 General certification requirements for computer-based systems and their relationship to are described in 3.2.</p> <p><b>3.2 Approval of Systems and Components</b></p> <p><b>3.2.2 <u>Type approval</u> for Computer-based Systems</b> 1 Computer-based systems that are routinely manufactured and include standardised software functions may be <u>type approved</u> in accordance with <b>Chapter 8, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>. Hardware is to be documented according to 2.2.1-2(4). The <u>type approval</u> consists of two main verification activities:  (1) assessment of type-specific documentation, and  (2) survey and testing of the standardised functions.  2 In principle, vessel-specific system certification is required as specified in 3.2.1 even if the <u>type approval</u> is acquired for computer-based systems. However, for such computer systems, submitted drawings may be omitted subject to 2.1.1(1)(a) and (2)(a), and tests may be subject to 3.2.1-2.</p>	<p><b>Chapter 3      COMPUTER-BASED SYSTEMS</b></p> <p><b>3.1 General</b></p> <p><b>3.1.3 Structure</b> 1 General certification requirements for computer-based systems and their relationship to <u>approval of use</u> are described in 3.2.</p> <p><b>3.2 Approval of Systems and Components</b></p> <p><b>3.2.2 <u>Approval of Use</u> for Computer-based Systems</b> 1 Computer-based systems that are routinely manufactured and include standardised software functions may be <u>approved</u> in accordance with <b>Chapter 8, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>. Hardware is to be documented according to 2.2.1-2(4). The <u>approval of use</u> consists of two main verification activities:  (1) assessment of type-specific documentation, and  (2) survey and testing of the standardised functions.  2 In principle, vessel-specific system certification is required as specified in 3.2.1 even if the <u>approval of use</u> is acquired for computer-based systems. However, for such computer systems, submitted drawings may be omitted subject to 2.1.1(1)(a) and (2)(a), and tests may be subject to 3.2.1-2.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Terminology alignment</p>



**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>((1) to (9) are omitted)</p> <p>(10) Test reports            Computer-based systems with <u>type</u> approval certificate covering the security capabilities of this Chapter may be exempted from survey by the Society. However, test reports signed by the supplier are to be submitted to the Society, demonstrating that the supplier has completed design, construction, testing, configuration, and hardening as would otherwise be verified by the Society in survey (4.6.3 and 2.2.3).</p> <p><b>4.6 Demonstration of Compliance</b></p> <p><b>4.6.1 Introduction</b>  <b>3</b> Approval of use based on <b>Chapter 10, Part 7 of Guidance for the Approval of Materials and Equipment for Marine Use</b> is voluntary and applies for computer-based systems that are standard and routinely manufactured. See 3.2.1 and 3.2.2 for definition of System certification and <u>type approval</u>.</p> <p><b>4.6.2 Plan Approval</b>  <b>2</b> If the computer-based system holds a valid <u>type</u> approval certificate covering the requirements of this Chapter, subject to approval by the Society, the supplier may submit a reduced set of vessel-specific documents to the Society (see <b>Table X2.3</b>).</p> <p><b>4.6.3 Survey and Factory Acceptance Test</b>  <b>1</b> Survey and factory acceptance test is a vessel-specific</p>	<p>((1) to (9) are omitted)</p> <p>(10) Test reports            Computer-based systems with approval certificate covering the security capabilities of this Chapter may be exempted from survey by the Society. However, test reports signed by the supplier are to be submitted to the Society, demonstrating that the supplier has completed design, construction, testing, configuration, and hardening as would otherwise be verified by the Society in survey (4.6.3 and 2.2.3).</p> <p><b>4.6 Demonstration of Compliance</b></p> <p><b>4.6.1 Introduction</b>  <b>3</b> Approval of use based on <b>Chapter 10, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> is voluntary and applies for computer-based systems that are standard and routinely manufactured. See 3.2.1 and 3.2.2 for definition of System certification and <u>approval of use</u>.</p> <p><b>4.6.2 Plan Approval</b>  <b>2</b> If the computer-based system holds a valid approval certificate covering the requirements of this Chapter, subject to approval by the Society, the supplier may submit a reduced set of vessel-specific documents to the Society (see <b>Table X2.3</b>).</p> <p><b>4.6.3 Survey and Factory Acceptance Test</b>  <b>1</b> Survey and factory acceptance test is a vessel-specific</p>	<p>Changes due to the renaming of the “Guidance for the Approval”            Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
 (Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
verification activity required for computer-based systems that do not hold a valid <u>type</u> approval certificate covering the requirements of this Chapter.	verification activity required for computer-based systems that do not hold a valid approval certificate covering the requirements of this Chapter.	

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Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>RULES FOR CARGO REFRIGERATING INSTALLATIONS</b></p> <p><b>Chapter 2 SURVEYS</b></p> <p><b>2.1 General</b></p> <p><b>2.1.2 Registration Surveys and Intervals of Registration Maintenance Surveys*</b></p> <p>(1) Registration Surveys during Construction Refrigerating installations intended to be constructed and registered with the Society under the survey by the Surveyors in accordance with the designs approved by the Society are to undergo the Registration Survey during Construction. The presence of the Surveyor is required at the following stages of the work. However, except the case of thermal balance test specified in 6.2.6 of the Rules, the requirements may be modified having regard to the actual status of facilities, technical abilities and quality control at the works.</p> <p>(a) When the tests of materials in accordance with the requirements in <b>Part K of the Rules for the Survey and Construction of Steel Ships</b> and other tests necessary for the approval described in 3.1.3-4, 5.2.1-1 and 5.2.5 of the Rules are carried out.</p>	<p><b>RULES FOR CARGO REFRIGERATING INSTALLATIONS</b></p> <p><b>Chapter 2 SURVEYS</b></p> <p><b>2.1 General</b></p> <p><b>2.1.2 Registration Surveys and Intervals of Registration Maintenance Surveys*</b></p> <p><b>1</b> Registration Surveys</p> <p>(1) Registration Surveys during Construction Refrigerating installations intended to be constructed and registered with the Society under the survey by the Surveyors in accordance with the designs approved by the Society are to undergo the Registration Survey during Construction. The presence of the Surveyor is required at the following stages of the work. However, except the case of thermal balance test specified in 6.2.6 of the Rules, the requirements may be modified having regard to the actual status of facilities, technical abilities and quality control at the works.</p> <p>(a) When the tests of materials in accordance with the requirements in <b>Part K of the Rules for the Survey and Construction of Steel Ships</b> and other tests necessary for the approval <u>or acceptance</u> described in 3.1.3-4, 5.2.1-1 and 5.2.5</p>	<p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p>((b) to (d) are omitted.) (2) (Omitted)</p> <p><b>Chapter 3 REFRIGERATING MACHINERY</b></p> <p><b>3.1 General</b></p> <p><b>3.1.3 Materials and Welding*</b> 6 Special materials such as rubber hoses, plastic tubes (including vinyl pipes), aluminium alloys, etc. used for refrigerating machinery is to be approved by the Society in consideration of the refrigerant used or service conditions.</p> <p><b>Chapter 5 REFRIGERATED CHAMBERS</b></p> <p><b>5.2 Insulation and Insulation Materials</b></p> <p><b>5.2.1 Insulation Materials</b> 1 Insulation materials approved by the Society are to be used.</p>	<p style="text-align: center;">of the Rules are carried out. ((b) to (d) are omitted.) (2) (Omitted)</p> <p><b>Chapter 3 REFRIGERATING MACHINERY</b></p> <p><b>3.1 General</b></p> <p><b>3.1.3 Materials and Welding*</b> 6 Special materials such as rubber hoses, plastic tubes (including vinyl pipes), aluminium alloys, etc. used for refrigerating machinery is to be approved <u>or accepted</u> by the Society in consideration of the refrigerant used or service conditions.</p> <p><b>Chapter 5 REFRIGERATED CHAMBERS</b></p> <p><b>5.2 Insulation and Insulation Materials</b></p> <p><b>5.2.1 Insulation Materials</b> 1 Insulation materials approved <u>or accepted</u> by the Society are to be used.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p style="text-align: center;"><b>RULES FOR AUTOMATIC AND REMOTE CONTROL SYSTEMS</b></p> <p><b>Chapter 2 SURVEYS OF AUTOMATIC AND REMOTE CONTROL SYSTEMS</b></p> <p><b>2.2 Registration Surveys</b></p> <p><b>2.2.3 <u>Type Approval</u></b>  <u>Type approval</u> for those devices and equipment which have passed those environmental tests specified in 2.2.2 above is to be in accordance with those requirements specified in 18.7.2, Part D of the Rules for the Survey and Construction of Steel Ships.</p>	<p style="text-align: center;"><b>RULES FOR AUTOMATIC AND REMOTE CONTROL SYSTEMS</b></p> <p><b>Chapter 2 SURVEYS OF AUTOMATIC AND REMOTE CONTROL SYSTEMS</b></p> <p><b>2.2 Registration Surveys</b></p> <p><b>2.2.3 <u>Approval of Use</u></b>  <u>Approval of use</u> for those devices and equipment which have passed those environmental tests specified in 2.2.2 above is to be in accordance with those requirements specified in 18.7.2, Part D of the Rules for the Survey and Construction of Steel Ships.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>RULES FOR HIGH SPEED CRAFT</b></p> <p><b>Part 9 MACHINERY INSTALLATIONS</b></p> <p><b>Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 General*</b></p> <p>2 For each type of reciprocating internal combustion engines, <u>a type approval</u> is to be obtained by the engine designer (hereinafter referred to “licensor” in this Chapter) as specified separately by the Society.</p> <p><b>2.1.3 Drawings and Data*</b></p> <p>2 The drawings and data for the purpose of inspection and testing specified in -1 (the items represented by the mark ○ in <b>Table 9.2.1(a)</b> and <b>Table 9.2.1(b)</b>, hereinafter indicated in the same way throughout this Chapter) are to be submitted in accordance with <b>2.1.4-1</b> by the engine manufacturer producing engines with the drawings and data whose <u>type approval</u> has been obtained in accordance with <b>2.1.1-2</b> (hereinafter referred to as “licensee” in this Chapter). Such drawings and data, however, may be submitted by the licensor in accordance with <b>2.1.4-2</b>.</p>	<p><b>RULES FOR HIGH SPEED CRAFT</b></p> <p><b>Part 9 MACHINERY INSTALLATIONS</b></p> <p><b>Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 General*</b></p> <p>2 For each type of reciprocating internal combustion engines, <u>an approval of use</u> is to be obtained by the engine designer (hereinafter referred to “licensor” in this Chapter) as specified separately by the Society.</p> <p><b>2.1.3 Drawings and Data*</b></p> <p>2 The drawings and data for the purpose of inspection and testing specified in -1 (the items represented by the mark ○ in <b>Table 9.2.1(a)</b> and <b>Table 9.2.1(b)</b>, hereinafter indicated in the same way throughout this Chapter) are to be submitted in accordance with <b>2.1.4-1</b> by the engine manufacturer producing engines with the drawings and data whose <u>approval of use</u> has been obtained in accordance with <b>2.1.1-2</b> (hereinafter referred to as “licensee” in this Chapter). Such drawings and data, however, may be submitted by the licensor in accordance with <b>2.1.4-2</b>.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>



**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks											
<b>Table 9.2.1(a) Drawings and Data for Approval</b>		Terminology alignment											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 65%; text-align: center;">Items</th> <th style="width: 30%; text-align: center;">For inspection and testing</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="2" style="text-align: center;">(Omitted)</td> </tr> <tr> <td></td> <td>                     (b) Category B turbochargers                     <ul style="list-style-type: none"> <li>i) Sectional assembly (including principal dimensions and materials of housing components for containment evaluation.)</li> <li>ii) Documentation of containment in the event of the disc fracture</li> <li>iii) Documentation of following operational data and limitations                             <ul style="list-style-type: none"> <li>• Maximum permissible operating speed (<i>rpm</i>)</li> <li>• Maximum permissible exhaust gas temperature at the turbine inlet</li> <li>• Minimum lubrication oil inlet pressure</li> <li>• Maximum permissible vibration levels (self- and externally generated vibrations)</li> <li>• Alarm level for exhaust gas temperature at the turbine inlet (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil inlet pressure low alarm set point (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil outlet temperature high alarm set point (levels are also to be indicated on engine control system diagrams)</li> </ul> </li> <li>iv) Diagram of lubrication oil systems (diagrams included in piping arrangements fitted to engines may be accepted instead)</li> <li>v) Test report of type <u>approval</u> test (only for type <u>approval</u> tests)</li> <li>vi) Test procedure (only for type <u>approval</u> tests)</li> </ul> </td> <td style="text-align: center;">—</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">(Omitted)</td> </tr> </tbody> </table>				Items	For inspection and testing		(Omitted)			(b) Category B turbochargers <ul style="list-style-type: none"> <li>i) Sectional assembly (including principal dimensions and materials of housing components for containment evaluation.)</li> <li>ii) Documentation of containment in the event of the disc fracture</li> <li>iii) Documentation of following operational data and limitations                             <ul style="list-style-type: none"> <li>• Maximum permissible operating speed (<i>rpm</i>)</li> <li>• Maximum permissible exhaust gas temperature at the turbine inlet</li> <li>• Minimum lubrication oil inlet pressure</li> <li>• Maximum permissible vibration levels (self- and externally generated vibrations)</li> <li>• Alarm level for exhaust gas temperature at the turbine inlet (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil inlet pressure low alarm set point (levels are also to be indicated on engine control system diagrams)</li> <li>• Lubrication oil outlet temperature high alarm set point (levels are also to be indicated on engine control system diagrams)</li> </ul> </li> <li>iv) Diagram of lubrication oil systems (diagrams included in piping arrangements fitted to engines may be accepted instead)</li> <li>v) Test report of type <u>approval</u> test (only for type <u>approval</u> tests)</li> <li>vi) Test procedure (only for type <u>approval</u> tests)</li> </ul>	—		(Omitted)
	Items	For inspection and testing											
	(Omitted)												
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	(Omitted)												
Note: (Omitted)		Terminology alignment											
<b>Table 9.2.1(b) Drawings and Data for Reference</b>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 65%; text-align: center;">Items</th> <th style="width: 30%; text-align: center;">For inspection and testing</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="2" style="text-align: center;">(Omitted)</td> </tr> <tr> <td style="text-align: center;">(31)</td> <td>Certification of an approval of use a type approval for environmental tests, control components<sup>(2)</sup></td> <td style="text-align: center;">○</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">(Omitted)</td> </tr> </tbody> </table>			Items	For inspection and testing		(Omitted)		(31)	Certification of an approval of use a type approval for environmental tests, control components <sup>(2)</sup>	○		(Omitted)	
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	(Omitted)												

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines*</b></p> <p><b>1</b> Reciprocating internal combustion engines are to be approved in accordance with the following <b>(1)</b> to <b>(6)</b>:</p> <p>(1) Development of documents and data for engine production</p> <p>(a) (Omitted)</p> <p>(b) Each type of reciprocating internal combustion engine is to be provided with a certificate of <u>type approval</u> obtained by the licensor in accordance with 2.1.1-2. For the first engine of a type or for those with no service records, the process of an approval of use and the approval process for production by the licensee may be performed simultaneously.</p> <p>(c) The licensor is to review the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained for the application and develop, if necessary, application specific drawings and data for production of reciprocating internal combustion engines for the use of the licensee in developing the reciprocating internal combustion engine specific production drawings and data for the purpose of inspection and testing specified in 2.1.3-1.</p> <p>(d) If substantive modifications to the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained have been made in the drawings and data of</p>	<p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines*</b></p> <p><b>1</b> Reciprocating internal combustion engines are to be approved in accordance with the following <b>(1)</b> to <b>(6)</b>:</p> <p>(1) Development of documents and data for engine production</p> <p>(a) (Omitted)</p> <p>(b) Each type of reciprocating internal combustion engine is to be provided with a certificate of <u>approval of use</u> obtained by the licensor in accordance with 2.1.1-2. For the first engine of a type or for those with no service records, the process of an approval of use and the approval process for production by the licensee may be performed simultaneously.</p> <p>(c) The licensor is to review the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained for the application and develop, if necessary, application specific drawings and data for production of reciprocating internal combustion engines for the use of the licensee in developing the reciprocating internal combustion engine specific production drawings and data for the purpose of inspection and testing specified in 2.1.3-1.</p> <p>(d) If substantive modifications to the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained have been made in the drawings and data of</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>reciprocating internal combustion engines to be produced, the affected drawings and data are to be resubmitted to the Society as specified separately by the Society.</p> <p>(2) Drawings and data for the inspection and testing of reciprocating internal combustion engines</p> <p>(a) The licensee is to develop the drawings and data for the inspection and testing specified in 2.1.3-1 and a comparison list of these drawings and data to the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained by the licensor and submit these drawings and the comparison list to the Society.</p> <p>(b) As for the drawings and data for the inspection and testing specified in 2.1.3-1, if there are differences in the technical content on the licensee’s production drawings and data of the reciprocating internal combustion engine compared to the drawings and data of the reciprocating internal combustion engine whose <u>type approval</u> has been obtained by the licensor, the licensee is to submit “Confirmation of the licensor’s acceptance of licensee’s modifications” approved by the licensor and signed by the licensee and licensor. If the licensor acceptance is not confirmed, the reciprocating internal combustion engine manufactured by the licensee is to be regarded as a different engine type and is 2.1.1-2 is to apply to the reciprocating internal combustion engine.</p>	<p>reciprocating internal combustion engines to be produced, the affected drawings and data are to be resubmitted to the Society as specified separately by the Society.</p> <p>(2) Drawings and data for the inspection and testing of reciprocating internal combustion engines</p> <p>(a) The licensee is to develop the drawings and data for the inspection and testing specified in 2.1.3-1 and a comparison list of these drawings and data to the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained by the licensor and submit these drawings and the comparison list to the Society.</p> <p>(b) As for the drawings and data for the inspection and testing specified in 2.1.3-1, if there are differences in the technical content on the licensee’s production drawings and data of the reciprocating internal combustion engine compared to the drawings and data of the reciprocating internal combustion engine whose <u>approval of use</u> has been obtained by the licensor, the licensee is to submit “Confirmation of the licensor’s acceptance of licensee’s modifications” approved by the licensor and signed by the licensee and licensor. If the licensor acceptance is not confirmed, the reciprocating internal combustion engine manufactured by the licensee is to be regarded as a different engine type and is 2.1.1-2 is to apply to the reciprocating internal combustion engine.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
((c) to (e) are omitted.) ((3) to (6) are omitted.)	((c) to (e) are omitted.) ((3) to (6) are omitted.)	

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(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS</b></p> <p><b>Part 7 MACHINERY INSTALLATIONS</b></p> <p><b>Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.6 Tests</b></p> <p><b>2.6.1 Shop Tests*</b></p> <p style="text-align: center;">Table 7.2.9 Programme for Shop Trials of Engines (Table omitted)</p> <p>Notes:                      ((1) to (10) are omitted.)                      (11) The scope of the open-up inspection is to be as deemed appropriate by the surveyor. The omission of the open-up inspection may be considered by the Society provided that all of the following(a)through(g)re met:                      (a) It is not the open-up inspection to be carried out during the approval test specified in <b>Chapter 8, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b>                      ((b) to (g) are omitted.)</p>	<p><b>RULES FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS</b></p> <p><b>Part 7 MACHINERY INSTALLATIONS</b></p> <p><b>Chapter 2 RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.6 Tests</b></p> <p><b>2.6.1 Shop Tests*</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part B CLASS SURVEYS</b></p> <p align="center"><b>B1 GENERAL</b></p> <p><b>B1.1 Surveys</b></p> <p><b>B1.1.3 Intervals of Class Maintenance Surveys</b>  <b>3</b> The Occasional Surveys specified in 1.1.3-3(5), <b>Part B of the Rules</b> are as specified below:            ((1) to (12) are omitted.)            (13) Devices to prevent the passage of flame (flame screen, flame arrester, detonation flame arrester and high velocity device)            For devices to prevent the passage of flame required to ships which had been at the beginning stage of construction before 1 January 2013 and for ships which carry cargos shown as apparatus groups IIB, IIC or no apparatus group assigned in the column <i>i</i>" of <b>Table S17.1, Part S of the Rules</b>, a survey is to be carried out to verify that the devices are in compliance with 7.4.2-2, <b>Chapter 7, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> by the first scheduled dry-docking after 1 January 2013.</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part B CLASS SURVEYS</b></p> <p align="center"><b>B1 GENERAL</b></p> <p><b>B1.1 Surveys</b></p> <p><b>B1.1.3 Intervals of Class Maintenance Surveys</b>  <b>3</b> The Occasional Surveys specified in 1.1.3-3(5), <b>Part B of the Rules</b> are as specified below:            ((1) to (12) are omitted.)            (13) Devices to prevent the passage of flame (flame screen, flame arrester, detonation flame arrester and high velocity device)            For devices to prevent the passage of flame required to ships which had been at the beginning stage of construction before 1 January 2013 and for ships which carry cargos shown as apparatus groups IIB, IIC or no apparatus group assigned in the column <i>i</i>" of <b>Table S17.1, Part S of the Rules</b>, a survey is to be carried out to verify that the devices are in compliance with 7.4.2-2, <b>Chapter 7, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> by the first scheduled dry-docking after 1 January 2013.</p>	<p>Changes due to the renaming of the "Guidance for the Approval"</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>((14) to (27) are omitted.)</p> <p><b>B8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS</b></p> <p><b>B8.1 General</b></p> <p><b>B8.1.2 Preventive Maintenance System of Shafts</b>  <b>2</b> The wording “Remote monitoring devices for wear-down of shaft deemed appropriate by the Society” in <b>8.1.2-2(7), Part B of the Rules</b> means devices approved by the Society in accordance with <b>Chapter 1, Part 7 of Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p>((14) to (27) are omitted.)</p> <p><b>B8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS</b></p> <p><b>B8.1 General</b></p> <p><b>B8.1.2 Preventive Maintenance System of Shafts</b>  <b>2</b> The wording “Remote monitoring devices for wear-down of shaft deemed appropriate by the Society” in <b>8.1.2-2(7), Part B of the Rules</b> means devices approved by the Society in accordance with <b>Chapter 1, Part 7 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part C HULL CONSTRUCTION AND EQUIPMENT</b></p> <p style="text-align: center;"><b>Part 1 GENERAL HULL REQUIREMENTS</b></p> <p style="text-align: center;"><b>C13 RUDDERS</b></p> <p><b>C13.2 Rudders</b></p> <p><b>C13.2.10 Bearings of Rudder Stocks and Pintles</b></p> <p><b>C13.2.10.2 Minimum Bearing Surface</b></p> <p>1 (Omitted)</p> <p>2 “The type as deemed appropriate by the Society” stipulated in Table 13.2.10-1, Part C of the Rules means that approval is to be made in accordance with the requirements of Chapter 5, Part 5 of Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part C HULL CONSTRUCTION AND EQUIPMENT</b></p> <p style="text-align: center;"><b>Part 1 GENERAL HULL REQUIREMENTS</b></p> <p style="text-align: center;"><b>C13 RUDDERS</b></p> <p><b>C13.2 Rudders</b></p> <p><b>C13.2.10 Bearings of Rudder Stocks and Pintles</b></p> <p><b>C13.2.10.2 Minimum Bearing Surface</b></p> <p>1 (Omitted)</p> <p>2 “The type as deemed appropriate by the Society” stipulated in Table 13.2.10-1, Part C of the Rules means that approval is to be made in accordance with the requirements of Chapter 5, Part 4 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>



Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part U INTACT STABILITY</b></p> <p style="text-align: center;"><b>Annex U1.2.2 GUIDANCE FOR STABILITY COMPUTER</b></p> <p><b>1.3 Hardware for Stability Computer</b></p> <p><b>1.3.1 Hardware Requirements</b>  <b>1</b> Hardware for stability computers is recommended to be of approved type in accordance with the requirements of Chapter 2, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use “APPROVAL OF USE OF LOADING COMPUTER”.</p>	<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part U INTACT STABILITY</b></p> <p style="text-align: center;"><b>Annex U1.2.2 GUIDANCE FOR STABILITY COMPUTER</b></p> <p><b>1.3 Hardware for Stability Computer</b></p> <p><b>1.3.1 Hardware Requirements</b>  <b>1</b> Hardware for stability computers is recommended to be of approved type in accordance with the requirements of Chapter 2, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use “APPROVAL OF USE OF LOADING COMPUTER”.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part W      NAVIGATION BRIDGE VISIBILITY</b></p> <p align="center"><b>W1      GENERAL</b></p> <p><b>W1.1 General</b></p> <p><b>W1.1.2 Ships of Unconventional Design</b> The use of remote camera systems for ships of unconventional design specified in <b>1.1.2 of the Rules</b> (excluding the ships mentioned in the provisory requirement specified in <b>2.1.4(2) of the Rules</b>) may be accepted as an alternative to <b>2.1.4 of the Rules</b> provided that they are deemed by the Society to comply with the following requirements (1) to (5), subject to acceptance by the flag state authority.</p> <p>(1) (Omitted) (2) (Omitted) (3) The remote camera systems are to be capable of continuous operation under environmental conditions in <b>Table 7.1-1, Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b> (4) (Omitted) (5) ((Omitted)</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part W      NAVIGATION BRIDGE VISIBILITY</b></p> <p align="center"><b>W1      GENERAL</b></p> <p><b>W1.1 General</b></p> <p><b>W1.1.2 Ships of Unconventional Design</b> The use of remote camera systems for ships of unconventional design specified in <b>1.1.2 of the Rules</b> (excluding the ships mentioned in the provisory requirement specified in <b>2.1.4(2) of the Rules</b>) may be accepted as an alternative to <b>2.1.4 of the Rules</b> provided that they are deemed by the Society to comply with the following requirements (1) to (5), subject to acceptance by the flag state authority.</p> <p>(1) (Omitted) (2) (Omitted) (3) The remote camera systems are to be capable of continuous operation under environmental conditions in <b>Table 7.1-1, Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b> (4) (Omitted) (5) (Omitted)</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part CS HULL CONSTRUCTION AND EQUIPMENT OF SMALL SHIPS</b></p> <p><b>CS3 RUDDERS</b></p> <p><b>CS3.11 Bearings of Rudder Stocks and Pintles</b></p> <p><b>CS3.11.1 Minimum Bearing Surface</b>  <b>2</b> “The type as deemed appropriate by the Society” stipulated in <b>Table CS3.3, Part CS</b> of the Rules means that approval is to be made in accordance with the requirements of <b>Chapter 5, Part 5</b> of <b>Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p>	<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part CS HULL CONSTRUCTION AND EQUIPMENT OF SMALL SHIPS</b></p> <p><b>CS3 RUDDERS</b></p> <p><b>CS3.11 Bearings of Rudder Stocks and Pintles</b></p> <p><b>CS3.11.1 Minimum Bearing Surface</b>  <b>2</b> “The type as deemed appropriate by the Society” stipulated in <b>Table CS3.3, Part CS</b> of the Rules means that approval is to be made in accordance with the requirements of <b>Chapter 5, Part 4</b> of <b>Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part D MACHINERY INSTALLATIONS</b></p> <p align="center"><b>D2 RECIPROCATING INTERNAL CONBUSTION ENGINES</b></p> <p><b>D2.1 General</b></p> <p><b>D2.1.1 General</b> The wording “as specified separately by the Society” specified in 2.1.1-3, Part D of the Rules means “in accordance with Chapter 8, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p> <p><b>D2.1.4 Approval of Reciprocating Internal Combustion Engines</b> 2 The phrase “design approval is to be obtained as specified separately by the Society” specified in 2.1.4-1(1)(a), Part D of the Rules means that the design approval and design appraisal are to be obtained in accordance with Chapter 8, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use. 3 The wording “the drawings and data of the reciprocating internal combustion engine whose type approval</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part D MACHINERY INSTALLATIONS</b></p> <p align="center"><b>D2 RECIPROCATING INTERNAL CONBUSTION ENGINES</b></p> <p><b>D2.1 General</b></p> <p><b>D2.1.1 General</b> The wording “as specified separately by the Society” specified in 2.1.1-3, Part D of the Rules means “in accordance with Chapter 8, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p> <p><b>D2.1.4 Approval of Reciprocating Internal Combustion Engines</b> 2 The phrase “design approval is to be obtained as specified separately by the Society” specified in 2.1.4-1(1)(a), Part D of the Rules means that the design approval and design appraisal are to be obtained in accordance with Chapter 8, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use. 3 The wording “the drawings and data of the reciprocating internal combustion engine whose approval of</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the</p>

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Amended	Original	Remarks
<p>has been obtained” specified in (1)(c), (1)(d), (2)(a) and (2)(b) of 2.1.4-1, Part D of the Rules means those listed in 8.2.2, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>4 The wording “as specified separately by the Society” specified in 2.1.4-1(1)(d), Part D of the Rules means “in accordance with 8.2.2-2, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p> <p>6 The wording “as specified separately by the Society” specified in 2.1.4-1(4)(a), Part D of the Rules means “in accordance with 8.2.2-4, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p>	<p>use has been obtained” specified in (1)(c), (1)(d), (2)(a) and (2)(b) of 2.1.4-1, Part D of the Rules means those listed in 8.2.2, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>4 The wording “as specified separately by the Society” specified in 2.1.4-1(1)(d), Part D of the Rules means “in accordance with 8.2.2-2, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p> <p>6 The wording “as specified separately by the Society” specified in 2.1.4-1(4)(a), Part D of the Rules means “in accordance with 8.2.2-4, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p>	<p>“Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>





**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>D2.4 Safety Devices</b></p> <p><b>D2.4.3 Protection against Crankcase Explosion</b></p> <p>1 The wording “explosion relief valves of approved type” in 2.4.3-1, Part D of the Rules means those valves approved by the Society in accordance with Chapter 10, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>3 The installation and maintenance manual specified in 2.4.3-1(5), Part D of the Rules is to contain the following information:</p> <ol style="list-style-type: none"> <li>(1) Description of valve with details of function and design limits</li> <li>(2) Copy of type <u>approval</u> test certification</li> <li>(3) Installation instructions</li> <li>(4) Maintenance in service instructions to include testing and renewal of any sealing arrangements</li> <li>(5) Actions required after a crankcase explosion</li> </ol> <p><b>D2.4.5 Crankcase Oil Mist Detection Arrangements</b></p> <p>2 The wording “crankcase oil mist detection arrangements required to be fitted to engines are to be approved type” stipulated in 2.4.5-2, Part D of the Rules refers to crankcase oil mist detection arrangement approved in accordance with Chapter 6, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p><b>D2.4 Safety Devices</b></p> <p><b>D2.4.3 Protection against Crankcase Explosion</b></p> <p>1 The wording “explosion relief valves of approved type” in 2.4.3-1, Part D of the Rules means those valves approved by the Society in accordance with Chapter 10, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>3 The installation and maintenance manual specified in 2.4.3-1(5), Part D of the Rules is to contain the following information:</p> <ol style="list-style-type: none"> <li>(1) Description of valve with details of function and design limits</li> <li>(2) Copy of type test certification</li> <li>(3) Installation instructions</li> <li>(4) Maintenance in service instructions to include testing and renewal of any sealing arrangements</li> <li>(5) Actions required after a crankcase explosion</li> </ol> <p><b>D2.4.5 Crankcase Oil Mist Detection Arrangements</b></p> <p>2 The wording “crankcase oil mist detection arrangements required to be fitted to engines are to be approved type” stipulated in 2.4.5-2, Part D of the Rules refers to crankcase oil mist detection arrangement approved in accordance with Chapter 6, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>



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Amended	Original	Remarks
<p><b>D2.6 Tests</b></p> <p><b>D2.6.1 Shop Tests</b></p> <p>1 The wording “a procedure deemed appropriate by the Society” in 2.6.1-2(6)(c), Part D of the Rules means the tests specified in 8.5.2-2(10), Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>2 The wording “a procedure deemed appropriate by the Society” in 2.6.1-3(5), Part D of the Rules means the tests specified in 8.3, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>5 The wording “a procedure deemed appropriate by the Society” in 2.6.1-7, Part D of the Rules means the tests specified in Chapter 11, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p align="center"><b>D6 SHAFTINGS</b></p> <p><b>D6.2 Materials, Construction and Strength</b></p> <p><b>D6.2.7 Corrosion Protection of Propeller Shafts and Stern Tube Shafts</b></p> <p>2 The wording “corrosion resistant materials approved by the Society” in 6.2.7-1(3), Part D of the Rules means those materials which have been subjected to approval tests specified</p>	<p><b>D2.6 Tests</b></p> <p><b>D2.6.1 Shop Tests</b></p> <p>1 The wording “a procedure deemed appropriate by the Society” in 2.6.1-2(6)(c), Part D of the Rules means the tests specified in 8.5.2-2(10), Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>2 The wording “a procedure deemed appropriate by the Society” in 2.6.1-3(5), Part D of the Rules means the tests specified in 8.3, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>5 The wording “a procedure deemed appropriate by the Society” in 2.6.1-7, Part D of the Rules means the tests specified in Chapter 11, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p align="center"><b>D6 SHAFTINGS</b></p> <p><b>D6.2 Materials, Construction and Strength</b></p> <p><b>D6.2.7 Corrosion Protection of Propeller Shafts and Stern Tube Shafts</b></p> <p>2 The wording “corrosion resistant materials approved by the Society” in 6.2.7-1(3), Part D of the Rules means those materials which have been subjected to approval tests specified</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>



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Amended	Original	Remarks
<p>the <b>Guidance for the Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(3) (Omitted)</p> <p><b>D12.3 Construction of Valves and Pipe Fittings</b></p> <p><b>D12.3.3 Mechanical Joints</b></p> <p>1 The wording “type approved by the Society” referred to in <b>12.3.3-2, Part D of the Rules</b> means one whose approval of use is obtained in accordance with <b>Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p>2 Details of the pressure referred to in <b>12.3.3-5, Part D of the Rules</b> are specified in <b>9.3.2(4) of Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p>3 The wording “standards separately specified by the Society” referred to in <b>12.3.3-7, Part D of the Rules</b> refers to <b>Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p>4 The wording “where deemed necessary by the Society” referred to in (2) and (4) as well as (6) to (8) of <b>12.3.3-7, Part D of the Rules</b> is in accordance with <b>Table 6.9-1 of Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p><b>D12.3.4 Flexible Hose Assemblies</b></p> <p>1 The wording “ approved by the Society” referred to in</p>	<p>the <b>Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(3) (Omitted)</p> <p><b>D12.3 Construction of Valves and Pipe Fittings</b></p> <p><b>D12.3.3 Mechanical Joints</b></p> <p>1 The wording “type approved by the Society” referred to in <b>12.3.3-2, Part D of the Rules</b> means one whose approval of use is obtained in accordance with <b>Chapter 9, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p>2 Details of the pressure referred to in <b>12.3.3-5, Part D of the Rules</b> are specified in <b>9.3.2(4) of Chapter 9, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p>3 The wording “standards separately specified by the Society” referred to in <b>12.3.3-7, Part D of the Rules</b> refers to <b>Chapter 9, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p>4 The wording “where deemed necessary by the Society” referred to in (2) and (4) as well as (6) to (8) of <b>12.3.3-7, Part D of the Rules</b> is in accordance with <b>Table 6.9-1 of Chapter 9, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p><b>D12.3.4 Flexible Hose Assemblies</b></p> <p>1 The wording “ approved by the Society” referred to in</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the</p>





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Amended	Original	Remarks
<p><b>D13.8 Sounding Devices</b></p> <p><b>D13.8.4 Construction of Liquid Level Indicators</b> The wording “a type that has been approved by the Society” in <b>13.8.4, Part D of the Rules</b> means those liquid level indicators approved in accordance with the requirements of <b>Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> and the wording “other standards approved by the Society” means <i>JIS F 7211</i> “5 K level gauges with valves”, <i>JIS F 7215</i> “Flat glass oil level gauges” or any equivalent standards.</p> <p><b>D13.8.5 Water Level Detection and Alarm Systems for Bulk Carriers, etc.</b> <b>3</b> The wording “the systems to have constructions and functions deemed appropriate by the Society” in <b>13.8.5-1(4), Part D of the Rules</b> means those systems complying with the following requirements and being of a type approved by the Society in accordance with <b>Chapter 5, Part 7 of Guidance for the Approval of Materials and Equipment for Marine Use</b> or those systems approved by an organisation deemed appropriate by the Society in accordance with the Resolution <i>MSC.188(79)</i>, as amended. (1) to (8) are omitted <b>7</b> Manuals specified in <b>13.8.5-4, Part D of the Rules</b> are to contain the following information and operational instructions: (1) (Omitted) (2) Evidence that the system has been approved in accordance with <b>Chapter 5, Part 7 of Guidance for</b></p>	<p><b>D13.8 Sounding Devices</b></p> <p><b>D13.8.4 Construction of Liquid Level Indicators</b> The wording “a type that has been approved by the Society” in <b>13.8.4, Part D of the Rules</b> means those liquid level indicators approved in accordance with the requirements of <b>Chapter 4, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> and the wording “other standards approved by the Society” means <i>JIS F 7211</i> “5 K level gauges with valves”, <i>JIS F 7215</i> “Flat glass oil level gauges” or any equivalent standards.</p> <p><b>D13.8.5 Water Level Detection and Alarm Systems for Bulk Carriers, etc.</b> <b>3</b> The wording “the systems to have constructions and functions deemed appropriate by the Society” in <b>13.8.5-1(4), Part D of the Rules</b> means those systems complying with the following requirements and being of a type approved by the Society in accordance with <b>Chapter 5, Part 7 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> or those systems approved by an organisation deemed appropriate by the Society in accordance with the Resolution <i>MSC.188(79)</i>, as amended. (1) to (8) are omitted <b>7</b> Manuals specified in <b>13.8.5-4, Part D of the Rules</b> are to contain the following information and operational instructions: (1) (Omitted) (2) Evidence that the system has been approved in accordance with <b>Chapter 5, Part 7 of Guidance for</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the</p>

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Amended	Original	Remarks
<p>the Approval of Materials and Equipment for Marine Use or the Resolution MSC.188(79), as amended.                      ((3) to (8) are omitted)</p> <p><b>D14 PIPING SYSTEMS FOR TANKERS</b></p> <p><b>D14.2 Cargo Oil Pumps, Cargo Oil Piping Systems, Piping in Cargo Oil Tanks, etc.</b></p> <p><b>D14.2.8 Sounding Devices of Cargo Oil Tanks</b>                      3 In cases where level indicating devices are provided for those sounding devices specified in 14.2.8, Part D of the Rules, such devices are to be of a type approved by the Society in accordance with Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use, which is separately specified. And, all approved devices are to be made public on the “List of approved materials and equipment”.</p> <p><b>D17 REFRIGERATING MACHINERY AND CONTROLLED ATMOSPHERE SYSTEMS</b></p> <p><b>D17.1 General</b></p> <p><b>D17.1.1 Scope</b>                      6 Ammonia refrigerating machinery materials</p>	<p>the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use or the Resolution MSC.188(79), as amended.                      ((3) to (8) are omitted)</p> <p><b>D14 PIPING SYSTEMS FOR TANKERS</b></p> <p><b>D14.2 Cargo Oil Pumps, Cargo Oil Piping Systems, Piping in Cargo Oil Tanks, etc.</b></p> <p><b>D14.2.8 Sounding Devices of Cargo Oil Tanks</b>                      3 In cases where level indicating devices are provided for those sounding devices specified in 14.2.8, Part D of the Rules, such devices are to be of a type approved by the Society in accordance with Chapter 4, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use, which is separately specified. And, all approved devices are to be made public on the “List of approved materials and equipment”.</p> <p><b>D17 REFRIGERATING MACHINERY AND CONTROLLED ATMOSPHERE SYSTEMS</b></p> <p><b>D17.1 General</b></p> <p><b>D17.1.1 Scope</b>                      6 Ammonia refrigerating machinery materials</p>	<p>renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>





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Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part GF SHIPS USING LOW-FLASHPOINT FUELS</b></p> <p align="center"><b>GF1 GENERAL</b></p> <p><b>GF1.1 General</b></p> <p><b>GF1.1.3 Approval of Systems and Equipment, etc.</b>  <b>1</b> The wording “to be approved as specified separately by the Society” specified in 1.1.3-1, Part GF of the Rules means that an approval is to be obtained in accordance with <b>Annex 1.1.3-3, Part GF of the Rules, Annexes 1 to 2A and Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part GF SHIPS USING LOW-FLASHPOINT FUELS</b></p> <p align="center"><b>GF1 GENERAL</b></p> <p><b>GF1.1 General</b></p> <p><b>GF1.1.3 Approval of Systems and Equipment, etc.</b>  <b>1</b> The wording “to be approved as specified separately by the Society” specified in 1.1.3-1, Part GF of the Rules means that an approval is to be obtained in accordance with <b>Annex 1.1.3-3, Part GF of the Rules, and Annexes 1 to 2A.</b></p>	<p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been changed. (Transfer from Annex 1 of Part N and GF.)</p>

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Amended	Original	Remarks
<b>GF6 FUEL CONTAINMENT SYSTEM</b>	<b>GF6 FUEL CONTAINMENT SYSTEM</b>	
<b>GF6.4 Liquefied Gas Fuel Containment</b>	<b>GF6.4 Liquefied Gas Fuel Containment</b>	
<b>GF6.4.13 Materials and Construction</b>	<b>GF6.4.13 Materials and Construction</b>	
<p><b>5</b> For the purpose of the requirements in 6.4.13-3(2), <b>Part GF of the Rules</b>, tests and inspection specified in the following (1) and (2) are to be carried out.</p> <p>(1) The insulation materials are to be approved in accordance with the <u>Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</u>. In the above, tests and inspection are to be conducted according to the procedures on the manufacture, storage, handling and product quality control established by the manufacturer.</p> <p>(2) (Omitted)</p> <p><b>8</b> If the material, which has been approved according to the <u>Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</u>, satisfies the performance requirements and such performance is considered to serve the purpose, the tests referred to in the preceding -6 may be omitted.</p>	<p><b>5</b> For the purpose of the requirements in 6.4.13-3(2), <b>Part GF of the Rules</b>, tests and inspection specified in the following (1) and (2) are to be carried out.</p> <p>(1) The insulation materials are to be approved in accordance with the <u>Annex 1 “Guidance for Equipment and Fittings of Ships Using Low-flashpoint Fuels”</u>. In the above, tests and inspection are to be conducted according to the procedures on the manufacture, storage, handling and product quality control established by the manufacturer.</p> <p>(2) (omitted)</p> <p><b>8</b> If the material, which has been approved according to the <u>Annex 1 “Guidance for Equipment and Fittings of Ships Using Low-flashpoint Fuels”</u>, satisfies the performance requirements and such performance is considered to serve the purpose, the tests referred to in the preceding -6 may be omitted.</p>	<p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been changed.(Transfer from Annex 1 of Part N and GF.)</p> <p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the</p>



Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>Annex 1 GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS USING LOW-FLASHPOINT FUELS</b></p> <p><b>Chapter 2 FUEL VAPOUR COMPRESSORS</b></p> <p><b>2.6 Tests and Inspections</b></p> <p><b>2.6.1 Type Tests</b>  <b>1</b> Each size and type of gas compressor is to be subjected type tests in the presence of a Society surveyor and <u>type approved</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>Chapter 3 FUEL PUMPS</b></p> <p><b>3.6 Tests and Inspections</b></p> <p><b>3.6.1 Type Tests</b>  <b>1</b> Each size and type of pump is to be subjected to type tests in the presence of a Society surveyor and <u>type approved</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p><b>Annex 1 GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS USING LOW-FLASHPOINT FUELS</b></p> <p><b>Chapter 2 FUEL VAPOUR COMPRESSORS</b></p> <p><b>2.6 Tests and Inspections</b></p> <p><b>2.6.1 Type Tests</b>  <b>1</b> Each size and type of gas compressor is to be subjected type tests in the presence of a Society surveyor and approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p><b>Chapter 3 FUEL PUMPS</b></p> <p><b>3.6 Tests and Inspections</b></p> <p><b>3.6.1 Type Tests</b>  <b>1</b> Each size and type of pump is to be subjected to type tests in the presence of a Society surveyor and approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>Chapter 5 VALVES</b></p> <p><b>5.3 Tests and Inspections</b></p> <p><b>5.3.1 Type Tests</b>            1 Valves whose design temperatures are below <math>-55^{\circ}\text{C}</math> are to be subjected to the tests and inspections specified in (1) to (9) below, taking into consideration 16.7.1, Part GF of the Rules and <u>type</u> approved in accordance with Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.            ((1) to (9) are omitted)            2 For valves not conforming to 5.2-2, detailed data on construction and strength are to be submitted to the Society, and such valves are to be type approved in accordance with Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p align="center"><b>Chapter 5 VALVES</b></p> <p><b>5.3 Tests and Inspections</b></p> <p><b>5.3.1 Type Tests</b>            1 Valves whose design temperatures are below <math>-55^{\circ}\text{C}</math> are to be subjected to the tests and inspections specified in (1) to (9) below, taking into consideration 16.7.1, Part GF of the Rules and approved <u>for use</u> in accordance with Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.            ((1) to (9) are omitted)            2 For valves not conforming to 5.2-2, detailed data on construction and strength are to be submitted to the Society, and such valves are to be type approved in accordance with Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>
<p align="center"><b>Chapter 6 RELIEF VALVES</b></p> <p><b>6.4 Tests and Inspections</b></p> <p><b>6.4.1 Prototype Tests</b>            1 Relief valves, not including those whose design temperatures are <math>-55^{\circ}\text{C}</math> or higher, fitted to fuel piping and process piping, are to be subjected to prototype tests, and are</p>	<p align="center"><b>Chapter 6 RELIEF VALVES</b></p> <p><b>6.4 Tests and Inspections</b></p> <p><b>6.4.1 Prototype Tests</b>            1 Relief valves, not including those whose design temperatures are <math>-55^{\circ}\text{C}</math> or higher, fitted to fuel piping and process piping, are to be subjected to prototype tests, and are</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>



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Amended	Original	Remarks
<p><b>Chapter 9 LEVEL INDICATORS AND LEVEL ALARMS</b></p> <p><b>9.1 General</b></p> <p><b>9.1.1 Application</b></p> <p><b>1</b> Level gauges for measuring fuel liquid levels in fuel containment systems and process pressure vessels, and liquid levels in nitrogen tanks are to be in accordance with the requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>2</b> Level alarm systems for detecting one or more of specific fuel liquid levels in fuel containment systems and process pressure vessels are to be in accordance with requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use:</b> relevant requirements are to be applied mutatis mutandis.</p> <p style="text-align: center;"><b>Chapter 10 PRESSURE GAUGES</b></p> <p><b>10.5 Electrical Installations</b></p> <p><b>10.5.1 General</b></p> <p><b>2</b> Tests specified in <b>Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine</b></p>	<p><b>Chapter 9 LEVEL INDICATORS AND LEVEL ALARMS</b></p> <p><b>9.1 General</b></p> <p><b>9.1.1 Application</b></p> <p><b>1</b> Level gauges for measuring fuel liquid levels in fuel containment systems and process pressure vessels, and liquid levels in nitrogen tanks are to be in accordance with the requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p><b>2</b> Level alarm systems for detecting one or more of specific fuel liquid levels in fuel containment systems and process pressure vessels are to be in accordance with requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use:</b> relevant requirements are to be applied mutatis mutandis.</p> <p style="text-align: center;"><b>Chapter 10 PRESSURE GAUGES</b></p> <p><b>10.5 Electrical Installations</b></p> <p><b>10.5.1 General</b></p> <p><b>2</b> Tests specified in <b>Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the</p>

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Amended	Original	Remarks
<p>Use are to be carried out mutatis mutandis and passed.</p> <p align="center"><b>Chapter 11 TEMPERATURE INDICATING DEVICES</b></p> <p><b>11.4 Electrical Installations</b></p> <p><b>11.4.1 General</b>  <b>2 Tests specified in Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use are to be carried out mutatis mutandis and passed.</b></p> <p align="center"><b>(Delete)</b></p>	<p><b>Equipment for Marine Use</b> are to be carried out mutatis mutandis and passed.</p> <p align="center"><b>Chapter 11 TEMPERATURE INDICATING DEVICES</b></p> <p><b>11.4 Electrical Installations</b></p> <p><b>11.4.1 General</b>  <b>2 Tests specified in Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use are to be carried out mutatis mutandis and passed.</b></p> <p align="center"><b><u>Chapter 12 INSULATION MATERIALS</u></b></p> <p align="center"><b><u>(Chapter 12 text is omitted)</u></b></p>	<p>Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been deleted.(Transfer from</p>



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<p align="center"><b>Chapter 13 INSULATION SYSTEM FOR VACUUM INSULATED TANKS</b></p> <p><b>13.3 Materials, Construction and Strength</b></p> <p><b>13.3.1 Materials and Welding</b>            3 Elements of insulation systems which do not contribute to vacuums (such as supporting structures installed between inner vessels and outer shells, and layered insulation installed on inner vessels as countermeasure for heat radiation) are to be type approved in accordance with <b>Guidance for the Approval of Materials and Equipment for Marine Use</b>. Type approval for filler material such as perlite, glass wool, etc. used between inner vessels and outer shells is not required except for cases where the Society deems it especially necessary.</p> <p><b>Chapter 14 OXYGEN CONTENT MEASURING EQUIPMENT</b></p> <p><b>14.4 Tests and Inspections</b></p> <p><b>14.4.2 <u>Type approval</u> Tests</b>            Fixed-type oxygen content measuring equipment is to pass the tests specified in 14.4.4 for each type. Such tests, however,</p>	<p align="center"><b>Chapter 13 INSULATION SYSTEM FOR VACUUM INSULATED TANKS</b></p> <p><b>13.3 Materials, Construction and Strength</b></p> <p><b>13.3.1 Materials and Welding</b>            3 Elements of insulation systems which do not contribute to vacuums (such as supporting structures installed between inner vessels and outer shells, and layered insulation installed on inner vessels as countermeasure for heat radiation) are to be type approved in accordance with <b>Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>. Type approval for filler material such as perlite, glass wool, etc. used between inner vessels and outer shells is not required except for cases where the Society deems it especially necessary.</p> <p><b>Chapter 14 OXYGEN CONTENT MEASURING EQUIPMENT</b></p> <p><b>14.4 Tests and Inspections</b></p> <p><b>14.4.2 <u>Approval of Use</u> Tests</b>            Fixed-type oxygen content measuring equipment is to pass the tests specified in 14.4.4 for each type. Such tests, however,</p>	<p>Annex 1 of Part N and GF.)</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>are not required in cases where the tests are carried out for individual equipment.</p> <p style="text-align: center;"><b>Chapter 20 FUEL HOSES</b></p> <p><b>20.5 Tests and Inspections</b></p> <p><b>20.5.1 <u>Type approval</u> Tests</b>            1 In principle, fuel hoses are to be subjected to the prototype tests in -2 for each type and hose bore. In addition, fuel hose are to be <u>type approved</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p><b>20.5.2 Product Inspections</b>            Hoses which have received <u>type approval</u> are to be subjected to the tests specified in the following (1) to (3), and inspections are to be carried out in the presence of a Society surveyor before being shipped.            ((1) to (3) are omitted)</p>	<p>are not required in cases where the tests are carried out for individual equipment.</p> <p style="text-align: center;"><b>Chapter 20 FUEL HOSES</b></p> <p><b>20.5 Tests and Inspections</b></p> <p><b>20.5.1 <u>Approval of Use</u> Tests</b>            1 In principle, fuel hoses are to be subjected to the prototype tests in -2 for each type and hose bore. In addition, fuel hose are to be approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p><b>20.5.2 Product Inspections</b>            Hoses which have received <u>Approval of Use</u> are to be subjected to the tests specified in the following (1) to (3), and inspections are to be carried out in the presence of a Society surveyor before being shipped.            ((1) to (3) are omitted)</p>	<p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”            Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part H ELECTRICAL INSTALLATIONS</b></p> <p align="center"><b>H1 GENERAL</b></p> <p><b>H1.2 Testing</b></p> <p><b>H1.2.1 Shop Tests</b>  <b>5</b> The wording “to be subjected to type tests” in 1.2.1-4, Part H of the Rules means Part 8 of the Guidance for the Approval of Materials and Equipment for Marine Use. Equipment and cables approved are made public in the List of Approved Materials and Equipment.</p> <p align="center"><b>H2 ELECTRICAL INSTALLATIONS AND SYSTEM DESIGN</b></p> <p><b>H2.9 Cables</b></p> <p><b>H2.9.11 Precaution against Fire</b>  <b>1</b> In cases where the installation work of cables in enclosed spaces or semi-enclosed spaces of ships meet either</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part H ELECTRICAL INSTALLATIONS</b></p> <p align="center"><b>H1 GENERAL</b></p> <p><b>H1.2 Testing</b></p> <p><b>H1.2.1 Shop Test</b>  <b>5</b> The wording “to be subjected to type tests” in 1.2.1-4, Part H of the Rules means Part 8 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use. Equipment and cables approved are made public in the List of Approved Materials and Equipment.</p> <p align="center"><b>H2 ELECTRICAL INSTALLATIONS AND SYSTEM DESIGN</b></p> <p><b>H2.9 Cables</b></p> <p><b>H2.9.11 Precaution against Fire</b>  <b>1</b> In cases where the installation work of cables in enclosed spaces or semi-enclosed spaces of ships meet either</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p>of the following requirements, such work may be regarded as complying with the requirements given in <b>2.9.11-1, Part H of the Rules</b>. However, item (2)(c) below is to be approved by the Society in accordance with the requirements given in <b>Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>. Furthermore, in cases where the use of cables is limited to specific applications, approval by the Society may be given on a case by case basis.</p> <p>((1) and (2) are omitted)</p> <p><b>H2.9.14 Supports and Fixing of Cables</b></p> <p><b>4</b> The wording “any tests otherwise specified by the Society” referred to in <b>2.9.14-3(4)(a), Part H of the Rules</b> are those tests specified in <b>3.4.2, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p><b>5</b> The wording “those tests” referred to in <b>2.9.14-3(4)(f), Part H of the Rules</b> are those safe working load tests specified in <b>3.4.2(3), Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p><b>H2.9.15 Penetration of Bulkheads and Decks</b></p> <p><b>5</b> Cable penetrations which are required to be watertight may be verified, for example, in accordance any of the following (1) to (3).</p> <p>(1) Confirmation as to whether watertightness is assured by a construction method in accordance with standards such as <i>JIS</i>.</p> <p>(2) The watertightness tests specified in item 10(1), <b>Table B2.7, Part B of the Rules</b>.</p>	<p>of the following requirements, such work may be regarded as complying with the requirements given in <b>2.9.11-1, Part H of the Rules</b>. However, item (2)(c) below is to be approved by the Society in accordance with the requirements given in <b>Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>. Furthermore, in cases where the use of cables is limited to specific applications, approval by the Society may be given on a case by case basis.</p> <p>((1) and (2) are omitted)</p> <p><b>H2.9.14 Supports and Fixing of Cables</b></p> <p><b>4</b> The wording “any tests otherwise specified by the Society” referred to in <b>2.9.14-3(4)(a), Part H of the Rules</b> are those tests specified in <b>3.4.2, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p><b>5</b> The wording “those tests” referred to in <b>2.9.14-3(4)(f), Part H of the Rules</b> are those safe working load tests specified in <b>3.4.2(3), Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p><b>H2.9.15 Penetration of Bulkheads and Decks</b></p> <p><b>5</b> Cable penetrations which are required to be watertight may be verified, for example, in accordance any of the following (1) to (3).</p> <p>(1) Confirmation as to whether watertightness is assured by a construction method in accordance with standards such as <i>JIS</i>.</p> <p>(2) The watertightness tests specified in item 10(1), <b>Table B2.7, Part B of the Rules</b>.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
(3) Approval in accordance with <b>Chapter 1, Part <u>5</u> of the Guidance for the Approval of Materials and Equipment for Marine Use.</b>	(3) Approval in accordance with <b>Chapter 1, Part <u>4</u> of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b>	

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Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part K MATERIALS</b></p> <p align="center"><b>K1 GENERAL</b></p> <p><b>K1.1 General</b></p> <p><b>K1.1.1 Application</b>                      4 In the application of 1.1.1-3, Part K of the Rules for the Survey and Construction of Steel Ships, those pipes made from metallic materials other than steels (for example titanium pipes, including primary material of pipes) are to be accordance with Chapter 2, Part <u>2</u> of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part K MATERIALS</b></p> <p align="center"><b>K1 GENERAL</b></p> <p><b>K1.1 General</b></p> <p><b>K1.1.1 Application</b>                      4 In the application of 1.1.1-3, Part K of the Rules for the Survey and Construction of Steel Ships, those pipes made from metallic materials other than steels (for example titanium pipes, including primary material of pipes) are to be accordance with Chapter 2, Part <u>1</u> of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>



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Amended	Original	Remarks
<p align="center"><b>K5 CASTINGS</b></p> <p><b>K5.1 Steel Castings</b></p> <p><b>K5.1.13 Additional Requirements for Crank Throws</b> The wording “the preliminary tests instructed by the Society” in 5.1.13-2, Part K of the Rules means the tests in accordance with Chapter 4, Part <u>2</u> of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p align="center"><b>K6 STEEL FORGINGS</b></p> <p><b>K6.1 Steel Forgings</b></p> <p><b>K6.1.13 Additional Requirements for Crankshafts</b> 4 The wording “the preliminary tests instructed by the Society” in 6.1.13-2 and -3, Part K of the Rules means the tests in accordance with Chapter 3 and Chapter 4, Part <u>2</u> of the Guidance for the Approval of Materials and Equipment for Marine Use respectively.</p>	<p align="center"><b>K5 CASTINGS</b></p> <p><b>K5.1 Steel Castings</b></p> <p><b>K5.1.13 Additional Requirements for Crank Throws</b> The wording “the preliminary tests instructed by the Society” in 5.1.13-2, Part K of the Rules means the tests in accordance with Chapter 4, Part <u>1</u> of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p align="center"><b>K6 STEEL FORGINGS</b></p> <p><b>K6.1 Steel Forgings</b></p> <p><b>K6.1.13 Additional Requirements for Crankshafts</b> 4 The wording “the preliminary tests instructed by the Society” in 6.1.13-2 and -3, Part K of the Rules means the tests in accordance with Chapter 3 and Chapter 4, Part <u>1</u> of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use respectively.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>



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Amended	Original	Remarks
<p><b>Annex K1.1.1-3 GUIDANCE RELATING TO HIGH MANGANESE AUSTENITIC STEELS</b></p> <p><b>1.1 High Manganese Austenitic Steels</b></p> <p><b>1.1.3 Approval</b>  <b>1</b> High manganese austenitic steel plates, unless otherwise specially provided or deemed appropriate by the Society, are to be manufactured at steel works which have been approved by the Society. The suitability of steel plates for forming and welding are to be demonstrated during the initial approval test at the steelworks. Approval of the steelworks is to follow a scheme given in <b>Chapter 1, Part 2</b> of the <b>Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p>	<p><b>Annex K1.1.1-3 GUIDANCE RELATING TO HIGH MANGANESE AUSTENITIC STEELS</b></p> <p><b>1.1 High Manganese Austenitic Steels</b></p> <p><b>1.1.3 Approval</b>  <b>1</b> High manganese austenitic steel plates, unless otherwise specially provided or deemed appropriate by the Society, are to be manufactured at steel works which have been approved by the Society. The suitability of steel plates for forming and welding are to be demonstrated during the initial approval test at the steelworks. Approval of the steelworks is to follow a scheme given in <b>Chapter 1, Part 1</b> of the <b>Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part L EQUIPMENT</b></p> <p align="center"><b>L2 ANCHORS</b></p> <p><b>L2.2 Anchors Used for Positioning Systems</b></p> <p><b>L2.2.11 Holding Power Tests</b>  <b>1</b> “Holding power tests designated by the Society” refers to the tests specified in 1.6.1(3), <b>Part 3</b> of the “Guidance for the Approval of Materials and Equipment for Marine Use”. For anchors intended to be used for vessels and floating offshore facilities fixed or positioned at specific sea areas for long periods of time, it means the tests specified in 1A.2.2(3)(b), <b>Part 3</b> of the “Guidance for the Approval of Materials and Equipment for Marine Use”.</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part L EQUIPMENT</b></p> <p align="center"><b>L2 ANCHORS</b></p> <p><b>L2.2 Anchors Used for Positioning Systems</b></p> <p><b>L2.2.11 Holding Power Tests</b>  <b>1</b> “Holding power tests designated by the Society” refers to the tests specified in 1.6.1(3), <b>Part 2</b> of the “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”. For anchors intended to be used for vessels and floating offshore facilities fixed or positioned at specific sea areas for long periods of time, it means the tests specified in 1A.2.2(3)(b), <b>Part 2</b> of the “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>L5 FIBRE ROPES</b></p> <p><b>L5.1 Fibre Ropes</b></p> <p><b>L5.1.3 Processes of Manufacture</b> Where the tests for the filaments specified in <b>Chapter 4, Part 3 of Guidance for the Approval of Materials and Equipment for Marine Use</b> as a part of the approval test of synthetic fibre rope are carried out by synthetic fibre rope manufacture and passed them, the filaments may be used for synthetic fibre rope.</p> <p align="center"><b>L9 CONTAINER SECURING FITTINGS</b></p> <p><b>L9.1 Container Securing Fittings</b></p> <p><b>L9.1.3 Materials</b> The wording “special consideration” in <b>9.1.3-3, Part L of the Rules</b> means that impact tests are to be carried out in accordance with <b>12.4.4, Chapter 12, Part 3 of Guidance for the Approval of Materials and Equipment for Marine Use</b> to confirm notch toughness at the design temperature of the ship provided with the fittings at the time of “Society’s approval” referred to in <b>9.1.5, Part L of the Rules</b>.</p>	<p align="center"><b>L5 FIBRE ROPES</b></p> <p><b>L5.1 Fibre Ropes</b></p> <p><b>L5.1.3 Processes of Manufacture</b> Where the tests for the filaments specified in <b>Chapter 4, Part 2 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> as a part of the approval test of synthetic fibre rope are carried out by synthetic fibre rope manufacture and passed them, the filaments may be used for synthetic fibre rope.</p> <p align="center"><b>L9 CONTAINER SECURING FITTINGS</b></p> <p><b>L9.1 Container Securing Fittings</b></p> <p><b>L9.1.3 Materials</b> The wording “special consideration” in <b>9.1.3-3, Part L of the Rules</b> means that impact tests are to be carried out in accordance with <b>12.4.4, Chapter 12, Part 2 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> to confirm notch toughness at the design temperature of the ship provided with the fittings at the time of “Society’s approval” referred to in <b>9.1.5, Part L of the Rules</b>.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p><b>L9.1.5 Manufacturing Processes and Product Shapes</b>            The wording “Society’s approval” in 9.1.5, Part L of the Rules means obtaining approval in accordance with Chapter 12, Part <u>3</u> of Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p><b>L9.1.5 Manufacturing Processes and Product Shapes</b>            The wording “Society’s approval” in 9.1.5, Part L of the Rules means obtaining approval in accordance with Chapter 12, Part <u>2</u> of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the reorganization of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part N SHIPS CARRYING LIQUEFIED GASES IN BULK</b></p> <p><b>N4 CARGO CONTAINMENT</b></p> <p><b>N4.19 Materials</b></p> <p><b>N4.19.3 Thermal Insulation and Other Materials Used in Cargo Containment Systems</b></p> <p><b>3</b> For the purpose of the requirements in 4.19.3-2, Part N of the Rules, tests and inspection specified in the following (1) and (2) are to be carried out.</p> <p>(1) The insulation materials are to be approved in accordance with the <u>Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</u>. In the above, tests and inspection are to be conducted according to the procedures on the manufacture, storage, handling and product quality control established by the manufacturer.</p> <p>(2) (Omitted)</p>	<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part N SHIPS CARRYING LIQUEFIED GASES IN BULK</b></p> <p><b>N4 CARGO CONTAINMENT</b></p> <p><b>N4.19 Materials</b></p> <p><b>N4.19.3 Thermal Insulation and Other Materials Used in Cargo Containment Systems</b></p> <p><b>3</b> For the purpose of the requirements in 4.19.3-2, Part N of the Rules, tests and inspection specified in the following (1) and (2) are to be carried out.</p> <p>(1) The insulation materials are to be approved in accordance with the <u>Annex 1 “GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS CARRYING LIQUEFIED GASES IN BULK”</u>. In the above, tests and inspection are to be conducted according to the procedures on the manufacture, storage, handling and product quality control established by the manufacturer.</p> <p>(2) (Omitted)</p>	<p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been changed.(Transfer from Annex 1 of Part N and</p>

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Amended	Original	Remarks
<p><b>6</b> If the material, which has been approved according to the <u>Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</u>”, satisfies the performance requirements and such performance is considered to serve the purpose, the tests referred to in the preceding -4 may be omitted.</p> <p><b>N5 PROCESS PRESSURE VESSELS AND LIQUID, VAPOUR, AND PRESSURE PIPING SYSTEMS</b></p> <p><b>N5.12 Materials</b></p> <p><b>N5.12.1 Materials</b></p> <p><b>1</b> For the purpose of 5.12.1, Part N of the Rules, the materials used for piping, valves and fittings are to comply with the relevant requirements in <b>Chapter 6, Part N of the Rules</b>, and at the same time, to conform to the relevant requirements in <b>Part K of the Rules</b>. However, for materials</p>	<p><b>6</b> If the material, which has been approved according to the <u>Annex 1 “GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS CARRYING LIQUEFIED GASES IN BULK”</u>”, satisfies the performance requirements and such performance is considered to serve the purpose, the tests referred to in the preceding -4 may be omitted.</p> <p><b>N5 PROCESS PRESSURE VESSELS AND LIQUID, VAPOUR, AND PRESSURE PIPING SYSTEMS</b></p> <p><b>N5.12 Materials</b></p> <p><b>N5.12.1 Materials</b></p> <p><b>1</b> For the purpose of 5.12.1, Part N of the Rules, the materials used for piping, valves and fittings are to comply with the relevant requirements in <b>Chapter 6, Part N of the Rules</b>, and at the same time, to conform to the relevant requirements in <b>Part K of the Rules</b>. However, for materials</p>	<p>GF.) In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been changed.(Transfer from Annex 1 of Part N and GF.)</p>



**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>(a) (Omitted)</p> <p>(b) Level gauges are to be in accordance with the requirements in the <b>Chapter 4, Part 7 of Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p>(c) (Omitted)</p> <p>((2) and (3) are omitted)</p> <p><b>N13.2 Level Indicators for Cargo Tanks</b></p> <p><b>N13.2.1 General</b>  For the purpose of the requirements 13.2.1, Part N of the Rules, the following requirements (1) and (2) are to be complied with:</p> <p>(1) The performance and construction of level gauges are to be approved by the <b>Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p>(2) (Omitted)</p> <p><b>N16 USE OF CARGO AS FUEL</b></p> <p><b>N16.1 General</b></p> <p><b>N16.1.1 General</b>  <b>3</b> In applying 16.1.1, Part N of the Rules, Annex 16.1.1-3, Part N of the Rules is to be dealt with as follows:</p> <p>(1) The wording “specified separately by the Society”</p>	<p>(a) (Omitted)</p> <p>(b) Level gauges are to be in accordance with the requirements in the <b>Chapter 4, Part 7 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p>(c) (Omitted)</p> <p>((2) and (3) are omitted)</p> <p><b>N13.2 Level Indicators for Cargo Tanks</b></p> <p><b>N13.2.1 General</b>  For the purpose of the requirements 13.2.1, Part N of the Rules, the following requirements (1) and (2) are to be complied with:</p> <p>(1) The performance and construction of level gauges are to be approved by the <b>Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p>(2) (Omitted)</p> <p><b>N16 USE OF CARGO AS FUEL</b></p> <p><b>N16.1 General</b></p> <p><b>N16.1.1 General</b>  <b>3</b> In applying 16.1.1, Part N of the Rules, Annex 16.1.1-3, Part N of the Rules is to be dealt with as follows:</p> <p>(1) The wording “specified separately by the Society”</p>	<p>renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>



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<p>specified in 1.1-5, Annex 16.1.1-3, Part N of the Rules refers to 8.3(4)(i), Chapter 8, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>(2) The wording “specified separately by the Society” specified in 3.1.1-2, Annex 16.1.1-3, Part N of the Rules refers to Chapter 2 to Chapter 4 of Annex 1.</p> <p>(3) The wording “deemed appropriate by the Society” specified in 4.1-9, Annex 16.1.1-3, Part N of the Rules refers to 8.3, Chapter 8, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>(4) The wording “specified separately by the Society” specified in 4.3(1), Annex 16.1.1-3, Part N of the Rules refers to 2.4.2 of Annex 1.</p> <p>(5) The wording “specified separately by the Society” specified in 4.3(2), Annex 16.1.1-3, Part N of the Rules refers to 2.4.3 of Annex 1.</p> <p><b>N16.3 Arrangement of Spaces Containing Gas Consumers</b></p> <p><b>N16.3.4 Vents and Bleed Lines</b>  The “flame screen” specified in 16.3.4, Part N of the Rules is to be a type approved in accordance with the provisions of Chapter 7, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p>specified in 1.1-5, Annex 16.1.1-3, Part N of the Rules refers to 8.3(4)(i), Chapter 8, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>(2) The wording “specified separately by the Society” specified in 3.1.1-2, Annex 16.1.1-3, Part N of the Rules refers to Chapter 2 to Chapter 4 of Annex 1.</p> <p>(3) The wording “deemed appropriate by the Society” specified in 4.1-9, Annex 16.1.1-3, Part N of the Rules refers to 8.3, Chapter 8, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>(4) The wording “specified separately by the Society” specified in 4.3(1), Annex 16.1.1-3, Part N of the Rules refers to 2.4.2 of Annex 1.</p> <p>(5) The wording “specified separately by the Society” specified in 4.3(2), Annex 16.1.1-3, Part N of the Rules refers to 2.4.3 of Annex 1.</p> <p><b>N16.3 Arrangement of Spaces Containing Gas Consumers</b></p> <p><b>N16.3.4 Vents and Bleed Lines</b>  The “flame screen” specified in 16.3.4, Part N of the Rules is to be a type approved in accordance with the provisions of Chapter 7, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p><b>N16.5 Gas Fuel Plants and Related Storage Tanks</b></p> <p><b>N16.5.3 Heating and Cooling Mediums</b> The wording “flame screen of an approved type” specified in 16.5.3, Part N of the Rules refers to ones approved in accordance with the provisions of Chapter 7, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>N16.7 Special Requirements for Gas-fired Internal Combustion Engines</b></p> <p><b>N16.7.1 Arrangements</b> 2 A suitable pressure relief system is to be provided for air inlet manifolds, scavenge spaces and exhaust systems which are not designed to accommodate the worst-case overpressure due to ignited gas leaks or justified by the safety concept of the engine. Pressure relief systems provided for air inlet manifolds, scavenge spaces and for exhaust gas manifolds composing exhaust systems are to be approved by the Society in accordance with Chapter 13, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use. A detailed evaluation regarding the hazard potential of overpressure in air inlet manifolds, scavenge spaces and exhaust systems is to be carried out and reflected in the safety concept of the engine. In the case of crankcases, explosion relief valves, as required in 2.4.3, Part D of the Rules, are considered suitable for the gas operation of the engine. For engines not covered by 2.4.3, Part D of the Rules, a detailed evaluation regarding the hazard potential of fuel gas</p>	<p><b>N16.5 Gas Fuel Plants and Related Storage Tanks</b></p> <p><b>N16.5.3 Heating and Cooling Mediums</b> The wording “flame screen of an approved type” specified in 16.5.3, Part N of the Rules refers to ones approved in accordance with the provisions of Chapter 7, Part 6 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</p> <p><b>N16.7 Special Requirements for Gas-fired Internal Combustion Engines</b></p> <p><b>N16.7.1 Arrangements</b> 2 A suitable pressure relief system is to be provided for air inlet manifolds, scavenge spaces and exhaust systems which are not designed to accommodate the worst-case overpressure due to ignited gas leaks or justified by the safety concept of the engine. Pressure relief systems provided for air inlet manifolds, scavenge spaces and for exhaust gas manifolds composing exhaust systems are to be approved by the Society in accordance with Chapter 13, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use. A detailed evaluation regarding the hazard potential of overpressure in air inlet manifolds, scavenge spaces and exhaust systems is to be carried out and reflected in the safety concept of the engine. In the case of crankcases, explosion relief valves, as required in 2.4.3, Part D of the Rules, are considered suitable for the gas operation of the engine. For engines not covered by 2.4.3, Part D of the Rules, a detailed evaluation regarding the</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p>accumulation in the crankcase is to be carried out.</p> <p align="center"><b>Annex 1 GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS CARRYING LIQUEFIED GASES IN BULK</b></p> <p align="center"><b>Chapter 2 CARGO COMPRESSORS</b></p> <p><b>2.6 Tests and Inspections</b></p> <p><b>2.6.1 Type Tests</b> 1 Each size and type of gas compressor is to be subjected type tests in the presence of a Society surveyor and <u>type approved</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p align="center"><b>Chapter 3 CARGO PUMPS</b></p> <p><b>3.6 Tests and Inspections</b></p> <p><b>3.6.1 Type Tests</b> 1 Each size and type of pump is to be subjected to type tests in the presence of a Society surveyor and <u>type approved</u></p>	<p>hazard potential of fuel gas accumulation in the crankcase is to be carried out.</p> <p align="center"><b>Annex 1 GUIDANCE FOR EQUIPMENT AND FITTINGS OF SHIPS CARRYING LIQUEFIED GASES IN BULK</b></p> <p align="center"><b>Chapter 2 CARGO COMPRESSORS</b></p> <p><b>2.6 Tests and Inspections</b></p> <p><b>2.6.1 Type Tests</b> 1 Each size and type of gas compressor is to be subjected type tests in the presence of a Society surveyor and <u>approved for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p align="center"><b>Chapter 3 CARGO PUMPS</b></p> <p><b>3.6 Tests and Inspections</b></p> <p><b>3.6.1 Type Tests</b> 1 Each size and type of pump is to be subjected to type tests in the presence of a Society surveyor and <u>approved for</u></p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the</p>

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Amended	Original	Remarks
<p>in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p style="text-align: center;"><b>Chapter 5 VALVES</b></p> <p><b>5.3 Tests and Inspections</b></p> <p><b>5.3.1 Type Test</b>  <b>1</b> Valves whose design temperatures are below <math>-55^{\circ}\text{C}</math> are to be subjected to the tests and inspections specified in (1) to (9) below, taking into consideration <b>5.13.1-1, Part N of the Rules</b> and <u>type</u> approved in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b>            ((1) to (9) are omitted)  <b>2</b> For valves not conforming to <b>5.2-2</b>, detailed data on construction and strength are to be submitted to the Society, and such valves are to be type approved in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p><u>use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p style="text-align: center;"><b>Chapter 5 VALVES</b></p> <p><b>5.3 Tests and Inspections</b></p> <p><b>5.3.1 Type Test</b>  <b>1</b> Valves whose design temperatures are below <math>-55^{\circ}\text{C}</math> are to be subjected to the tests and inspections specified in (1) to (9) below, taking into consideration <b>5.13.1-1, Part N of the Rules</b> and approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b>            ((1) to (9) are omitted)  <b>2</b> For valves not conforming to <b>5.2-2</b>, detailed data on construction and strength are to be submitted to the Society, and such valves are to be type approved in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p>	<p>“Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>Chapter 6 RELIEF VALVES</b></p> <p><b>6.4 Tests and Inspection</b></p> <p><b>6.4.1 Prototype Test</b> 1 Relief valves other than those fitted to cargo piping and process piping with a design temperature of -55°C or above are to be subjected to prototype tests to verify that they are possess the necessary performance and are to be <u>type</u> approved in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p align="center"><b>Chapter 7 EXPANSION JOINTS (For Cargo Piping and Process Piping Systems)</b></p> <p><b>7.3 Tests and Inspections</b></p> <p><b>7.3.1 Type Test</b> Expansion joints, except for those provided in the piping with open pipe ends and installed in the cargo tanks, are to be subjected to the type test specified in <b>5.13.1-2, Part N of the Rules</b> for each type. In addition, such expansion joints are to be <u>type</u> approved in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p align="center"><b>Chapter 6 RELIEF VALVES</b></p> <p><b>6.4 Tests and Inspection</b></p> <p><b>6.4.1 Prototype Test</b> 1 Relief valves other than those fitted to cargo piping and process piping with a design temperature of -55°C or above are to be subjected to prototype tests to verify that they are possess the necessary performance and are to be approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p align="center"><b>Chapter 7 EXPANSION JOINTS (For Cargo Piping and Process Piping Systems)</b></p> <p><b>7.3 Tests and Inspections</b></p> <p><b>7.3.1 Type Test</b> Expansion joints, except for those provided in the piping with open pipe ends and installed in the cargo tanks, are to be subjected to the type test specified in <b>5.13.1-2, Part N of the Rules</b> for each type. In addition, such expansion joints are to be approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

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Amended	Original	Remarks
<p><b>Chapter 9      LEVEL INDICATORS AND LEVEL ALARMS</b></p> <p><b>9.1 General</b></p> <p><b>9.1.1 Application</b></p> <p><b>1</b> The level gauges to measure the liquid levels of the cargo in cargo containment system and process pressure vessels and levels in liquid nitrogen tank are to conform to the requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>2</b> The level alarm system that detects one point or more of the specific cargo liquid level in cargo containment system and process pressure vessel is to conform to the requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> in a corresponding manner.</p> <p style="text-align: center;"><b>Chapter 10      PRESSURE GAUGES</b></p> <p><b>10.5 Electrical Installations</b></p> <p><b>10.5.1 General</b></p> <p><b>2</b> The electrical installations of pressure gauges are to be subjected to the tests corresponding to the Environmental Test in accordance with the requirements in <b>Chapter 1, Part 7 of</b></p>	<p><b>Chapter 9      LEVEL INDICATORS AND LEVEL ALARMS</b></p> <p><b>9.1 General</b></p> <p><b>9.1.1 Application</b></p> <p><b>1</b> The level gauges to measure the liquid levels of the cargo in cargo containment system and process pressure vessels and levels in liquid nitrogen tank are to conform to the requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p><b>2</b> The level alarm system that detects one point or more of the specific cargo liquid level in cargo containment system and process pressure vessel is to conform to the requirements in <b>Chapter 4, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> in a corresponding manner.</p> <p style="text-align: center;"><b>Chapter 10      PRESSURE GAUGES</b></p> <p><b>10.5 Electrical Installations</b></p> <p><b>10.5.1 General</b></p> <p><b>2</b> The electrical installations of pressure gauges are to be subjected to the tests corresponding to the Environmental Test in accordance with the requirements in <b>Chapter 1, Part 7 of</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p>the Guidance for the Approval of Materials and Equipment for Marine Use and to pass the testing requirements.</p> <p style="text-align: center;"><b>Chapter 11 TEMPERATURE INDICATING DEVICES</b></p> <p><b>11.4 Electrical Installations</b></p> <p><b>11.4.1 General</b> 2 The electrical installations of the temperature indicating devices are to be subjected to the environmental test specified in the requirements in <b>Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> and to pass the testing requirements.</p> <p style="text-align: center;"><u><b>(Delete)</b></u></p>	<p>the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use and to pass the testing requirements.</p> <p style="text-align: center;"><b>Chapter 11 TEMPERATURE INDICATING DEVICES</b></p> <p><b>11.4 Electrical Installations</b></p> <p><b>11.4.1 General</b> 2 The electrical installations of the temperature indicating devices are to be subjected to the environmental test specified in the requirements in <b>Chapter 1, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b> and to pass the testing requirements.</p> <p style="text-align: center;"><u><b>Chapter 12 INSULATION MATERIALS</b></u></p> <p style="text-align: center;"><u>(Chapter 12 text is omitted)</u></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine</p>

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Amended	Original	Remarks
<p><b>Chapter 14 OXYGEN CONTENT MEASURING EQUIPMENT</b></p> <p><b>14.4 Tests and Inspection</b></p> <p><b>14.4.2 Approval Tests for Use</b></p> <p><b>Chapter 20 CARGO HOSES</b></p> <p><b>20.5 Tests and Inspection</b></p> <p><b>20.5.1 <u>Type approval Test</u></b>            1 In principle, cargo hoses are to be subjected to the prototype tests in -2 for each type and hose bore and are to be <u>type approved</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>20.5.2 <u>Product Inspection</u></b>            When the hoses <u>type approved</u> are shipped, each hose is to be subjected to the following tests and inspection (1) to (3) in the attendance of the Surveyor:            ((1) to (3) are omitted)</p>	<p><b>Chapter 14 OXYGEN CONTENT MEASURING EQUIPMENT</b></p> <p><b>14.4 Tests and Inspection</b></p> <p><b>14.4.2 Approval Tests for Use</b></p> <p><b>Chapter 20 CARGO HOSES</b></p> <p><b>20.5 Tests and Inspection</b></p> <p><b>20.5.1 <u>Approval Test for Use</u></b>            1 In principle, cargo hoses are to be subjected to the prototype tests in -2 for each type and hose bore and are to be approved <u>for use</u> in accordance with <b>Chapter 2, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p> <p><b>20.5.2 <u>Product Inspection</u></b>            When the hoses approved <u>for use</u> are shipped, each hose is to be subjected to the following tests and inspection (1) to (3) in the attendance of the Surveyor:            ((1) to (3) are omitted)</p>	<p>Use, the current requirement have been deleted.(Transfer from Annex 1 of Part N and GF.)</p> <p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK</b></p> <p><b>S5 CARGO TRANSFER</b></p> <p><b>S5.4 Tests Requirements for Piping</b></p> <p><b>S5.4.1 Application</b></p> <p style="text-align: center;">Table S5.4.1-2 Test Requirements for Piping (Table is omitted)</p> <p>Note:</p> <p>(1) Materials complying with international or national standards such as <i>ISO, JIS</i>, etc. may be used for pipe joints of butt welded type and pipe joints of a slip-on sleeve welded type (such as elbows, reducers, tees, bends and sockets, etc.) for which hot forming or heat treatment is carried out during their manufacturing process in accordance with the requirements of D12.6.1-1(1)(a)ii) on the condition that they receive approval of use from the Society in accordance with Chapter 12, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</p>	<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part S SHIPS CARRYING DANGEROUS CHEMICALS IN BULK</b></p> <p><b>S5 CARGO TRANSFER</b></p> <p><b>S5.4 Tests Requirements for Piping</b></p> <p><b>S5.4.1 Application</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval” Terminology alignment</p>

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Amended	Original	Remarks
<b>S13 INSTRUMENTATION</b>	<b>S13 INSTRUMENTATION</b>	
<b>S13.1 Gauging</b>	<b>S13.1 Gauging</b>	
<b>S13.1.1 Types of Gauging Devices</b>	<b>S13.1.1 Types of Gauging Devices</b>	
5 The performance and construction of liquid level indicator are to have been approved in accordance with the <b>Guidance for the Approval of Materials and Equipment for Marine Use.</b>	5 The performance and construction of liquid level indicator are to have been approved in accordance with the <b>Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b>	Changes due to the renaming of the "Guidance for the Approval"
<b>S15 SPECIAL REQUIREMENTS</b>	<b>S15 SPECIAL REQUIREMENTS</b>	
<b>S15.19 Overflow Control</b>	<b>S15.19 Overflow Control</b>	
<b>S15.19.6 Installation of High Level Alarm</b>	<b>S15.19.6 Installation of High Level Alarm</b>	
The level detecting devices used for high level alarm system and overflow control system are to be of type approved in accordance with the requirements of <b>Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b> When modular units are provided in the control room or on bridge, level indicators and visible alarms independent from those (a), (b) and (c) given in the preceding <b>S15.19.5</b> are to be provided. Such audible alarms are not intended to identify alarms and thus they may not necessarily be independent. Visible and audible alarms are to be provided also in the cargo areas. Visible alarms are to be provided at such locations readily recognizable also from shore side. In	The level detecting devices used for high level alarm system and overflow control system are to be of type approved in accordance with the requirements of <b>Chapter 4, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b> When modular units are provided in the control room or on bridge, level indicators and visible alarms independent from those (a), (b) and (c) given in the preceding <b>S15.19.5</b> are to be provided. Such audible alarms are not intended to identify alarms and thus they may not necessarily be independent. Visible and audible alarms are to be provided also in the cargo areas. Visible alarms are to be provided at such locations readily	Changes due to the renaming of the "Guidance for the Approval"

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Amended	Original	Remarks
<p>case where no control room is provided, audible and visible alarms are to be provided in the cargo control room. Except for entering the cargo tanks which have thoroughly been washed clean, the testing device for detecting ends is to be provided outside the tank. Simulation test of electric circuit or self-monitoring circuit may be accepted.</p>	<p>recognizable also from shore side. In case where no control room is provided, audible and visible alarms are to be provided in the cargo control room. Except for entering the cargo tanks which have thoroughly been washed clean, the testing device for detecting ends is to be provided outside the tank. Simulation test of electric circuit or self-monitoring circuit may be accepted.</p>	

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Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES</b></p> <p style="text-align: center;"><b>P10 POSITIONING SYSTEMS</b></p> <p><b>P10.7 Dynamic Positioning Systems</b></p> <p><b>P10.7.1 General</b>  <b>1</b> The DP-control systems and computer systems used for the Class 2 DPS and Class 3 DPS are to be approved by the Society in accordance with the requirements of <b>Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</b>  <b>2</b> The DP-control systems and computer systems used for the Class 1 DPS, as a rule, are to be approved by the Society in accordance with the requirements of <b>Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> as far as practicable.</p>	<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES</b></p> <p style="text-align: center;"><b>P10 POSITIONING SYSTEMS</b></p> <p><b>P10.7 Dynamic Positioning Systems</b></p> <p><b>P10.7.1 General</b>  <b>1</b> The DP-control systems and computer systems used for the Class 2 DPS and Class 3 DPS are to be approved by the Society in accordance with the requirements of <b>Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b>  <b>2</b> The DP-control systems and computer systems used for the Class 1 DPS, as a rule, are to be approved by the Society in accordance with the requirements of <b>Chapter 1, Part 7 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> as far as practicable.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p style="text-align: center;"><b>P12 ELECTRICAL INSTALLATIONS</b></p> <p><b>P12.1 General</b></p> <p><b>P12.1.3 Tests</b>  <b>3</b> The wording “to be subject to type tests” in <b>12.1.3-3, Part P of the Rules</b> means <b>Part 8 of the “Guidance for the Approval of Materials and Equipment for Marine Use”</b>. Equipment and cables approved are made public on the “List of Approved Materials and Equipment”.</p>	<p style="text-align: center;"><b>P12 ELECTRICAL INSTALLATIONS</b></p> <p><b>P12.1 General</b></p> <p><b>P12.1.3 Tests</b>  <b>3</b> The wording “to be subject to type tests” in <b>12.1.3-3, Part P of the Rules</b> means <b>Part 8 of the “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use”</b>. Equipment and cables approved are made public on the “List of Approved Materials and Equipment”.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part PS FLOATING OFFSHORE FACILITIES FOR CRUDE OIL/PETROLEUM GAS PRODUCTION, STORAGE AND OFFLOADING</b></p> <p><b>PS8 ELECTRICAL INSTALLATIONS</b></p> <p><b>PS8.1 General</b></p> <p><b>PS8.1.3 Tests</b>  <b>2</b> The wording “to be subject to type tests” in 8.1.3-3, Part PS of the Rules means Part 8 of the Guidance for the Approval of Materials and Equipment for Marine Use. Equipment and cables approved for use are made public on the “List of Approved Materials and Equipment”.</p>	<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p><b>Part PS FLOATING OFFSHORE FACILITIES FOR CRUDE OIL/PETROLEUM GAS PRODUCTION, STORAGE AND OFFLOADING</b></p> <p><b>PS8 ELECTRICAL INSTALLATIONS</b></p> <p><b>PS8.1 General</b></p> <p><b>PS8.1.3 Tests</b>  <b>2</b> The wording “to be subject to type tests” in 8.1.3-3, Part PS of the Rules means Part 8 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use. Equipment and cables approved for use are made public on the “List of Approved Materials and Equipment”.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part R FIRE PROTECTION, DETECTION AND EXTINCTION</b></p> <p style="text-align: center;"><b>R4 PROBABILITY OF IGNITION</b></p> <p style="text-align: center;"><b>R4.2 Arrangements for Oil Fuel, Lubrication Oil and Other Flammable Oils</b></p> <p style="text-align: center;"><b>R4.2.2 Arrangements for Oil Fuel</b>  <b>9</b> The wording “the approved ones by the Society” in 4.2.2(3)(e)ii), Part R of the Rules means the oil level gauges approved in accordance with the requirements of Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use and the wording “the standard deemed approved by the Society” means the <i>JIS F 7215</i> “Flat glass oil level gauges” or equivalent.</p> <p style="text-align: center;"><b>R4.5 Cargo Areas of Tankers</b></p> <p style="text-align: center;"><b>R4.5.3 Cargo Tank Venting</b>  <b>3</b> The design, arrangement, etc. of devices to prevent the passage of flame (hereinafter referred to as the devices in</p>	<p style="text-align: center;"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p style="text-align: center;"><b>Part R FIRE PROTECTION, DETECTION AND EXTINCTION</b></p> <p style="text-align: center;"><b>R4 PROBABILITY OF IGNITION</b></p> <p style="text-align: center;"><b>R4.2 Arrangements for Oil Fuel, Lubrication Oil and Other Flammable Oils</b></p> <p style="text-align: center;"><b>R4.2.2 Arrangements for Oil Fuel</b>  <b>9</b> The wording “the approved ones by the Society” in 4.2.2(3)(e)ii), Part R of the Rules means the oil level gauges approved in accordance with the requirements of Chapter 4, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use and the wording “the standard deemed approved by the Society” means the <i>JIS F 7215</i> “Flat glass oil level gauges” or equivalent.</p> <p style="text-align: center;"><b>R4.5 Cargo Areas of Tankers</b></p> <p style="text-align: center;"><b>R4.5.3 Cargo Tank Venting</b>  <b>3</b> The design, arrangement, etc. of devices to prevent the passage of flame (hereinafter referred to as the devices in</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>





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**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><b>Chapter 7, Part 6 of “Guidance for the Approval of Materials and Equipment for Marine Use”.</b> Approved <i>PV</i> valves are made public on “<b>List of approved materials and equipment</b>”.</p> <p>((1) to (3) are omitted)</p> <p><b>R11.6.3 Safety Measures in Cargo Tanks</b></p> <p><b>1</b> The design, arrangement, etc. of high level alarms and level detecting devices of an overflow control system specified in <b>11.6.3-1, Part R of the Rules</b> are to comply with the following requirements. The wording “procedure deemed appropriate by the Society” in <b>11.6.3-1, Part R of the Rules</b> means the procedure specified in <b>Chapter 7, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use</b>. Approved high level alarms and level detecting devices are made public on “<b>List of approved materials and equipment</b>”.</p> <p>((1) and (2) are omitted)</p> <p><b>3</b> “A secondary means of allowing full flow relief of vapour, air or inert gas mixtures” specified in <b>11.6.3-2, Part R of the Rules</b> is to comply with the following requirements:</p> <p>(1) The venting arrangements specified in <b>11.6.1(2), Part R of the Rules</b>, the rupture disks or the pressure-vacuum breaking devices may be used as a secondary means. The rupture disk is to be of a type approved by the Society in accordance with the provisions of <b>Chapter 7, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p>((2) and (3) are omitted)</p> <p><b>4</b> The pressure monitoring system specified in <b>11.6.3-2,</b></p>	<p><b>Chapter 7, Part 6 of “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</b> Approved <i>PV</i> valves are made public on “<b>List of approved materials and equipment</b>”.</p> <p>((1) to (3) are omitted)</p> <p><b>R11.6.3 Safety Measures in Cargo Tanks</b></p> <p><b>1</b> The design, arrangement, etc. of high level alarms and level detecting devices of an overflow control system specified in <b>11.6.3-1, Part R of the Rules</b> are to comply with the following requirements. The wording “procedure deemed appropriate by the Society” in <b>11.6.3-1, Part R of the Rules</b> means the procedure specified in <b>Chapter 7, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>. Approved high level alarms and level detecting devices are made public on “<b>List of approved materials and equipment</b>”.</p> <p>((1) and (2) are omitted)</p> <p><b>3</b> “A secondary means of allowing full flow relief of vapour, air or inert gas mixtures” specified in <b>11.6.3-2, Part R of the Rules</b> is to comply with the following requirements:</p> <p>(1) The venting arrangements specified in <b>11.6.1(2), Part R of the Rules</b>, the rupture disks or the pressure-vacuum breaking devices may be used as a secondary means. The rupture disk is to be of a type approved by the Society in accordance with the provisions of <b>Chapter 7, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b>.</p> <p>((2) and (3) are omitted)</p> <p><b>4</b> The pressure monitoring system specified in <b>11.6.3-2,</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>



Amended-Original Requirements Comparison Table  
 (Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p>devices required for outlets specified in <b>R4.5.3-3(2)(b)</b> and <b>(c)</b> may be of a type for which a flash back test and an endurance burning test are dispensed with.</p>	<p>High velocity devices required for outlets specified in <b>R4.5.3-3(2)(b)</b> and <b>(c)</b> may be of a type for which a flash back test and an endurance burning test are dispensed with.</p>	

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Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part X COMPUTER-BASED SYSTEMS</b></p> <p align="center"><b>X3 COMPUTER-BASED SYSTEMS</b></p> <p><b>X3.2 Approval of Systems and Components</b></p> <p><b>X3.2.1 System Certification</b> The wording “requirements specified otherwise by the Society” in 3.2.1-2, Part X of the Rules, means confirmation of the following when assessments are carried out based on the Rules for Approval of Manufacturers and Service Suppliers.</p> <p>(1) The computer-based system in question is to acquire the <u>type approval</u> (including the approval of quality plan (and quality manual) specified in 2.2.1-1, Part X of the Rules) specified in 3.2.2, Part X of the Rules. Tests for approval of use may be carried out at the same time as an assessment based on the Rules for Approval of Manufacturers and Service Suppliers.</p> <p>(2) The manufacturers in question perform quality management based on the quality plan (and quality manual) specified in 2.2.1-1, Part X of the Rules.</p>	<p align="center"><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS</b></p> <p align="center"><b>Part X COMPUTER-BASED SYSTEMS</b></p> <p align="center"><b>X3 COMPUTER-BASED SYSTEMS</b></p> <p><b>X3.2 Approval of Systems and Components</b></p> <p><b>X3.2.1 System Certification</b> The wording “requirements specified otherwise by the Society” in 3.2.1-2, Part X of the Rules, means confirmation of the following when assessments are carried out based on the Rules for Approval of Manufacturers and Service Suppliers.</p> <p>(1) The computer-based system in question is to acquire the <u>approval of use</u> (including the approval of quality plan (and quality manual) specified in 2.2.1-1, Part X of the Rules) specified in 3.2.2, Part X of the Rules. Tests for approval of use may be carried out at the same time as an assessment based on the Rules for Approval of Manufacturers and Service Suppliers.</p> <p>(2) The manufacturers in question perform quality management based on the quality plan (and quality manual) specified in 2.2.1-1, Part X of the Rules.</p>	<p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS</b></p> <p align="center"><b>Part 7 EQUIPMENT FOR THE PREVENTION OF POLLUTION BY SEWAGE</b></p> <p align="center"><b>Chapter 2 EQUIPMENT FOR THE PREVENTION OF POLLUTION BY SEWAGE FROM SHIPS</b></p> <p><b>2.2 Requirements for Installation of Equipment</b></p> <p><b>2.2.1 Equipment for the Prevention of Pollution by Sewage</b></p> <p><b>1</b> The “sewage treatment plant as deemed appropriate by the Society” referred to in <b>2.2.1(1)(a)i), Part 7 of the Rules</b> means one that satisfies the following:</p> <p>(1) It complies with one of the following (a) to (c) in addition to either being approved by the Society in accordance with <b>Chapter 8, Part 3 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> or having passed an inspection by an organization authorized by the Administration or deemed appropriate by the Society.</p> <p>((a) to (c) are omitted)</p> <p>(2) (Omitted)</p> <p><b>2</b> The wording “sewage comminuting and disinfecting</p>	<p align="center"><b>GUIDANCE FOR MARINE POLLUTION PREVENTION SYSTEMS</b></p> <p align="center"><b>Part 7 EQUIPMENT FOR THE PREVENTION OF POLLUTION BY SEWAGE</b></p> <p align="center"><b>Chapter 2 EQUIPMENT FOR THE PREVENTION OF POLLUTION BY SEWAGE FROM SHIPS</b></p> <p><b>2.2 Requirements for Installation of Equipment</b></p> <p><b>2.2.1 Equipment for the Prevention of Pollution by Sewage</b></p> <p><b>1</b> The “sewage treatment plant as deemed appropriate by the Society” referred to in <b>2.2.1(1)(a)i), Part 7 of the Rules</b> means one that satisfies the following:</p> <p>(1) It complies with one of the following (a) to (c) in addition to either being approved by the Society in accordance with <b>Chapter 8, Part 2 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> or having passed an inspection by an organization authorized by the Administration or deemed appropriate by the Society.</p> <p>((a) to (c) are omitted)</p> <p>(2) (Omitted)</p> <p><b>2</b> The wording “sewage comminuting and disinfecting</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the</p>



Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>GUIDANCE FOR CARGO REFRIGERATING INSTALLATIONS</b></p> <p><b>Chapter 3 REFRIGERATING MACHINERY</b></p> <p><b>3.1 General</b></p> <p><b>3.1.3 Materials and Welding</b> The wording “to be approved by the Society” specified to in 3.1.3-6 of the Rules means that approval is to be made in accordance with the requirements in Chapter 2 or 6, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p><b>GUIDANCE FOR CARGO REFRIGERATING INSTALLATIONS</b></p> <p><b>Chapter 3 REFRIGERATING MACHINERY</b></p> <p><b>3.1 General</b></p> <p><b>3.1.3 Materials and Welding</b> The wording “to be approved by the Society” specified to in 3.1.3-6 of the Rules means that approval is to be made in accordance with the requirements in Chapter 2 or 6, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
 (Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>GUIDANCE FOR PREVENTIVE MACHINERY MAINTENANCE SYSTEMS</b></p> <p align="center"><b>Chapter 2 SURVEYS</b></p> <p><b>2.2 Registration Surveys</b></p> <p><b>2.2.2 Shop Tests</b>                      2 Test procedures for environmental tests are to be in accordance with Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p align="center"><b>GUIDANCE FOR PREVENTIVE MACHINERY MAINTENANCE SYSTEMS</b></p> <p align="center"><b>Chapter 2 SURVEYS</b></p> <p><b>2.2 Registration Surveys</b></p> <p><b>2.2.2 Shop Tests</b>                      2 Test procedures for environmental tests are to be in accordance with Chapter 1, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>



Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR CENTRALIZED CARGO MONITORING AND CONTROL SYSTEMS</b></p> <p style="text-align: center;"><b>Chapter 2 SURVEYS</b></p> <p><b>2.2 Registration Surveys</b></p> <p><b>2.2.2 Shop Tests</b>  <b>1</b> The wording “deemed appropriate by the Society” specified in 2.2.2 of the Rules means devices satisfy the requirements specified in Chapters 1 and 4, Part 7 of the <b>Guidance for the Approval of Materials and Equipment for Marine Use.</b></p>	<p style="text-align: center;"><b>GUIDANCE FOR CENTRALIZED CARGO MONITORING AND CONTROL SYSTEMS</b></p> <p style="text-align: center;"><b>Chapter 2 SURVEYS</b></p> <p><b>2.2 Registration Surveys</b></p> <p><b>2.2.2 Shop Tests</b>  <b>1</b> The wording “deemed appropriate by the Society” specified in 2.2.2 of the Rules means devices satisfy the requirements specified in Chapters 1 and 4, Part 7 of the <b>Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</b></p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p style="text-align: center;"><b>Part 9 MACHINERY INSTALLATIONS</b></p> <p style="text-align: center;"><b>Chapter 2      RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 General</b></p> <p>1 The wording “as specified separately by the Society” specified in 2.1.1-2, Part 9 of the Rules means “in accordance with Chapter 8, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p> <p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines</b></p> <p>2 The phrase “design approval is to be obtained as specified separately by the Society” specified in 2.1.4-1(1)(a), Part 9 of the Rules means that the design approval and design appraisal are to be obtained in accordance with Chapter 8, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>3 The wording “the drawings and data of the engine whose <u>type approval</u> has been obtained” specified in (1)(c), (1)(d), (2)(a) and (2)(b) of 2.1.4-1, Part 9 of the Rules means</p>	<p style="text-align: center;"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p style="text-align: center;"><b>Part 9 MACHINERY INSTALLATIONS</b></p> <p style="text-align: center;"><b>Chapter 2      RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 General</b></p> <p>1 The wording “as specified separately by the Society” specified in 2.1.1-2, Part 9 of the Rules means “in accordance with Chapter 8, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p> <p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines</b></p> <p>2 The phrase “design approval is to be obtained as specified separately by the Society” specified in 2.1.4-1(1)(a), Part 9 of the Rules means that the design approval and design appraisal are to be obtained in accordance with Chapter 8, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p>3 The wording “the drawings and data of the engine whose <u>approval of use</u> has been obtained” specified in (1)(c), (1)(d), (2)(a) and (2)(b) of 2.1.4-1, Part 9 of the Rules means</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>those listed in <b>8.2.2, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</b></p> <p><b>4</b> The wording “as specified separately by the Society” specified in <b>2.1.4-1(1)(d), Part 9 of the Rules</b> means “in accordance with <b>8.2.2-2, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use</b>”.</p> <p><b>6</b> The wording “as specified separately by the Society” specified in <b>2.1.4-1(4)(a), Part 9 of the Rules</b> means “in accordance with <b>8.2.2-4, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use</b>”.</p> <p><b>2.1.5 Construction, Installation and General</b></p>	<p>those listed in <b>8.2.2, Part 6 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</b></p> <p><b>4</b> The wording “as specified separately by the Society” specified in <b>2.1.4-1(1)(d), Part 9 of the Rules</b> means “in accordance with <b>8.2.2-2, Part 6 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>”.</p> <p><b>6</b> The wording “as specified separately by the Society” specified in <b>2.1.4-1(4)(a), Part 9 of the Rules</b> means “in accordance with <b>8.2.2-4, Part 6 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>”.</p> <p><b>2.1.5 Construction, Installation and General</b></p>	<p>Terminology alignment</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

## Amended-Original Requirements Comparison Table (Review of Guidance for the Approval of Materials and Equipment for Marine Use)

	Amended	Original		Remarks
	<b>Fig.2.1.4-1 Flow of Approval of Reciprocating Internal Combustion Engines</b>			
Licensor	<pre> graph TD     subgraph Licensor         L1[Obtains an approval of use a type approval] --&gt; L2[Develops drawings and data for specific engine]         L2 --&gt; L3[Checks the modifications and issues acceptance]         L3 --&gt; L4[Forwards documents showing the acceptance]     end      subgraph Licensee         L5[Develops/modifies engine specific drawings and data for production] --&gt; L6[Develops: 1) Comparison list of the drawings and data for approval of use type approval to the drawings and data for specific engine 2) Documents including differences in the technical content if required]         L6 --&gt; L7[Completes the comparison list with information from the licensor]         L7 --&gt; L8[Production based on the reviewed/ approved drawings and data]     end      L2 --&gt; L5     L6 --&gt; L3     L4 --&gt; L7     L7 --&gt; L8      subgraph Component_Manufacturer         CM[Submits the comparison list in cases of no modifications by the licensee] --&gt; S1[Reviews/approves the drawings and data]     end      subgraph Society_Head_Quarter         S1 --&gt; S2[Forwards the reviewed/ approved drawings and data]     end      subgraph Society_Branch_Offices         S2 --&gt; S3[Branch offices with responsibility for licensees, etc.: Files the list of the reviewed/ approved drawings and data]     end      L6 --&gt; CM     CM --&gt; S1     S1 --&gt; S2     S2 --&gt; S3         </pre>			Terminology alignment
Licensee				
Component Manufacturer				
The Society (Head Quarter)				
The Society (e.g. Branch Offices) <sup>1)</sup>				
	<p>1) Branch offices with responsibility for licensees and/or component manufacturers in different locations</p> <p>2) In cases of modifications by the licensee, refer to (b) and (c) of 2.1.4-1(2), Part 9 of the Rules</p>			

## Amended-Original Requirements Comparison Table (Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p>Fig.2.1.4-1      Flow of Approval of Reciprocating Internal Combustion Engines (continued)</p> <pre> graph TD     subgraph Amended         A1[Forwards the reviewed/ approved drawings and data] --&gt; A2[Files certificate]         A2 --&gt; A3[Receives component with certificate]         A3 --&gt; A4[Prepares the drawings and data for testing in manufacturing plants, etc.]         A4 --&gt; A5[Engine certificate]         A5 --&gt; A6[Files certificate]         A6 --&gt; A7[Manufactures components]         A7 --&gt; A8[Files certificate]     end      subgraph Original         O1[Request for survey] --&gt; O2[Any branch offices: 1) Survey 2) Issue of certificate]         O2 --&gt; O3[Request for survey of components]         O3 --&gt; O4[Request for survey]         O4 --&gt; O5[Branch offices with responsibility for licencees, etc.: 1) Survey Testing in manufacturing plants, etc. 2) Issue of engine certificate]         O5 --&gt; O6[Request for survey]     end      A1 --&gt; O1     A2 --&gt; O2     A3 --&gt; O3     A4 --&gt; O4     A5 --&gt; O5     A6 --&gt; O6     </pre>		
		Licensor
		Licensee
		Component Manufacturer
		The Society (Head Quarter)
		The Society (e.g. Branch Offices) <sup>1)</sup>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Chapter 7 PIPES, VALVES PIPE FITTINGS AND AUXILIARIES</b></p> <p><b>7.1 General</b></p> <p><b>7.1.2 Materials</b> The wording “requirements specified otherwise” in 7.1.2, <b>Part 9 of the Rules</b> means as follows.</p> <p>(1) In cases where rubber hoses, Teflon hoses or nylon hoses are used for the following pipes, only materials approved in accordance with the <b>Guidance for the Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(a) Pipes of Group I or Group II (b) Pipes likely to cause fire or flooding in case of their fracture</p> <p>(2) Only plastics pipes (including vinyl pipes) approved by the Society in accordance with <b>Chapter 6, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>((3) and (4) are omitted)</p>	<p><b>Chapter 7 PIPES, VALVES PIPE FITTINGS AND AUXILIARIES</b></p> <p><b>7.1 General</b></p> <p><b>7.1.2 Materials</b> The wording “requirements specified otherwise” in 7.1.2, <b>Part 9 of the Rules</b> means as follows.</p> <p>(1) In cases where rubber hoses, Teflon hoses or nylon hoses are used for the following pipes, only materials approved in accordance with the <b>Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(a) Pipes of Group I or Group II (b) Pipes likely to cause fire or flooding in case of their fracture</p> <p>(2) Only plastics pipes (including vinyl pipes) approved by the Society in accordance with <b>Chapter 6, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use</b> are to be used.</p> <p>((3) and (4) are omitted)</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Part 10      ELECTRICAL INSTALLATIONS</b></p> <p style="text-align: center;"><b>Chapter 1      GENERAL</b></p> <p><b>1.2 Testing</b></p> <p><b>1.2.1 Shop Tests</b>  <b>3</b> The wording “to be subjected to type test” in 1.2.1-3, Part 10 of the Rules means Part 8 of the Guidance for the Approval of Materials and Equipment for Marine Use. Cables type tested are made public in the List of Approved Materials and Equipment.</p>	<p><b>Part 10      ELECTRICAL INSTALLATIONS</b></p> <p style="text-align: center;"><b>Chapter 1      GENERAL</b></p> <p><b>1.2 Testing</b></p> <p><b>1.2.1 Shop Tests</b>  <b>3</b> The wording “to be subjected to type test” in 1.2.1-3, Part 10 of the Rules means Part 8 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use. Cables type tested are made public in the List of Approved Materials and Equipment.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p style="text-align: center;"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p style="text-align: center;"><b>Part 2 CLASS SURVEY</b></p> <p><b>Chapter 2 CLASSIFICATION SURVEYS</b></p> <p><b>2.1 Classification Survey during Construction</b></p> <p><b>2.1.8 Verification of Coating Application</b>  <b>2</b> The “certificate deemed appropriate by the Society” stipulated in <b>2.1.8(1), Part 2 of the Rules</b> refers to one of the following (1) to (3):</p> <ol style="list-style-type: none"> <li>(1) The Society’s approval certificate specified in <b>Chapter 4, Part 5 of Guidance for the Approval of Materials and Equipment for Marine Use</b></li> <li>(2) Statement of Compliance issued by the Research Institute of Marine Engineering, Japan (<i>RIME</i>), the Japan Paint Inspection and testing Association or MARINTEK</li> <li>(3) Other documents approved by the Society</li> </ol>	<p style="text-align: center;"><b>GUIDANCE FOR HIGH SPEED CRAFT</b></p> <p style="text-align: center;"><b>Part 2 CLASS SURVEY</b></p> <p><b>Chapter 2 CLASSIFICATION SURVEYS</b></p> <p><b>2.1 Classification Survey during Construction</b></p> <p><b>2.1.8 Verification of Coating Application</b>  <b>2</b> The “certificate deemed appropriate by the Society” stipulated in <b>2.1.8(1), Part 2 of the Rules</b> refers to one of the following (1) to (3):</p> <ol style="list-style-type: none"> <li>(1) The Society’s approval certificate specified in <b>Chapter 4, Part 4 of Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b></li> <li>(2) Statement of Compliance issued by the Research Institute of Marine Engineering, Japan (<i>RIME</i>), the Japan Paint Inspection and testing Association or MARINTEK</li> <li>(3) Other documents approved by the Society</li> </ol>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>



Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Part 3 HULL CONSTRUCTION AND EQUIPMENT</b></p> <p><b>Chapter 6 WATERTIGHT BULKHEAD AND THE OPENING</b></p> <p><b>6.3 Openings of Watertight Bulkhead</b></p> <p><b>6.3.2 Pipes and Penetrations</b></p> <p>3 The application of 6.3.2-3, Part 3 of the Rules is to comply with the following (1) to (7). ((1) to (5) are omitted)</p> <p>(6) Penetrations used for the passage of heat sensitive piping systems through watertight boundaries are to be tested with heat sensitive piping and are to be approved in accordance with the following (a) to (j).</p> <p>(a) Chapter 1, Part 5, Guidance for the Approval of Materials and Equipment for Marine Use applies correspondingly to procedures for approval, tests, etc. for pipe penetrations.</p> <p>(b) Approval of the pipe penetrations is to be included a watertightness test which is carried out after completing fire test under provision of Chapter 1 of Part 5 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p>((c) to (i) are omitted)</p>	<p><b>Part 3 HULL CONSTRUCTION AND EQUIPMENT</b></p> <p><b>Chapter 6 WATERTIGHT BULKHEAD AND THE OPENING</b></p> <p><b>6.3 Openings of Watertight Bulkhead</b></p> <p><b>6.3.2 Pipes and Penetrations</b></p> <p>3 The application of 6.3.2-3, Part 3 of the Rules is to comply with the following (1) to (7). ((1) to (5) are omitted)</p> <p>(6) Penetrations used for the passage of heat sensitive piping systems through watertight boundaries are to be tested with heat sensitive piping and are to be approved in accordance with the following (a) to (j).</p> <p>(a) Chapter 1, Part 4, Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use applies correspondingly to procedures for approval, tests, etc. for pipe penetrations.</p> <p>(b) Approval of the pipe penetrations is to be included a watertightness test which is carried out after completing fire test under provision of Chapter 1 of Part 4 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use.</p> <p>((c) to (i) are omitted)</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
(7) (Omitted)	(7) (Omitted)	

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Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS</b></p> <p><b>Part 2 CLASS SURVEYS</b></p> <p><b>Chapter 8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS</b></p> <p><b>8.1 General</b></p> <p><b>8.1.2 Preventive Maintenance System of Shafts</b>            2 The wording “Remote monitoring devices for wear-down of shaft deemed appropriate by the Society” in 8.1.2-2(7), Part 2 of the Rules means devices approved by the Society in accordance with Chapter 1, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p><b>GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF INLAND WATERWAY SHIPS</b></p> <p><b>Part 2 CLASS SURVEYS</b></p> <p><b>Chapter 8 PROPELLER SHAFT AND STERN TUBE SHAFT SURVEYS</b></p> <p><b>8.1 General</b></p> <p><b>8.1.2 Preventive Maintenance System of Shafts</b>            2 The wording “Remote monitoring devices for wear-down of shaft deemed appropriate by the Society” in 8.1.2-2(7), Part 2 of the Rules means devices approved by the Society in accordance with Chapter 1, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>



**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>specified in 2.1.1-2, Part 7 of the Rules means “in accordance with Chapter 8, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p> <p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines</b></p> <p><b>2</b> The phrase “design approval is to be obtained as specified separately by the Society” specified in 2.1.4-1(1)(a), Part 7 of the Rules means that the design approval and design appraisal are to be obtained in accordance with Chapter 8, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>3</b> The wording “the drawings and data of the reciprocating internal combustion engine whose approval of use has been obtained” specified in (1)(c), (1)(d), (2)(a) and (2)(b) of 2.1.4-1, Part 7 of the Rules means those listed in 8.2.2, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>4</b> The wording “as specified separately by the Society” specified in 2.1.4-1(1)(d), Part 7 of the Rules means “in accordance with 8.2.2-2, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p> <p><b>6</b> The wording “as specified separately by the Society” specified in 2.1.4-1(4)(a), Part 7 of the Rules means “in accordance with 8.2.2-4, Part 6 of Guidance for the Approval of Materials and Equipment for Marine Use”.</p>	<p>specified in 2.1.1-2, Part 7 of the Rules means “in accordance with Chapter 8, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p> <p><b>2.1.4 Approval of Reciprocating Internal Combustion Engines</b></p> <p><b>2</b> The phrase “design approval is to be obtained as specified separately by the Society” specified in 2.1.4-1(1)(a), Part 7 of the Rules means that the design approval and design appraisal are to be obtained in accordance with Chapter 8, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p><b>3</b> The wording “the drawings and data of the reciprocating internal combustion engine whose approval of use has been obtained” specified in (1)(c), (1)(d), (2)(a) and (2)(b) of 2.1.4-1, Part 7 of the Rules means those listed in 8.2.2, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p><b>4</b> The wording “as specified separately by the Society” specified in 2.1.4-1(1)(d), Part 7 of the Rules means “in accordance with 8.2.2-2, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p> <p><b>6</b> The wording “as specified separately by the Society” specified in 2.1.4-1(4)(a), Part 7 of the Rules means “in accordance with 8.2.2-4, Part 6 of Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”.</p>	<p>renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>2.4 Safety Devices</b></p> <p><b>2.4.3 Protection against Crankcase Explosion</b>  <b>1</b> The wording “explosion relief valves of approved type” in 2.4.3-1, Part 7 of the Rules means those valves approved by the Society in accordance with Chapter 10, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>2.4.5 Crankcase Oil Mist Detection Arrangements</b>  <b>2</b> The wording “crankcase oil mist detection arrangements required to be fitted to engines are to be approved type” stipulated in 2.4.5-2, Part 7 of the Rules refers to crankcase oil mist detection arrangement approved in accordance with Chapter 6, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>2.6 Tests</b></p> <p><b>2.6.1 Shop Tests</b>  <b>1</b> The wording “a procedure deemed appropriate by the Society” in 2.6.1-2(6)(c), Part 7 of the Rules means the tests specified in 8.5.2-2(10), Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>4</b> The wording “procedures deemed appropriate by the Society” in 2.6.1-5, Part 7 of the Rules means the tests specified in Chapter 11, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p>	<p><b>2.4 Safety Devices</b></p> <p><b>2.4.3 Protection against Crankcase Explosion</b>  <b>1</b> The wording “explosion relief valves of approved type” in 2.4.3-1, Part 7 of the Rules means those valves approved by the Society in accordance with Chapter 10, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p><b>2.4.5 Crankcase Oil Mist Detection Arrangements</b>  <b>2</b> The wording “crankcase oil mist detection arrangements required to be fitted to engines are to be approved type” stipulated in 2.4.5-2, Part 7 of the Rules refers to crankcase oil mist detection arrangement approved in accordance with Chapter 6, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p><b>2.6 Tests</b></p> <p><b>2.6.1 Shop Tests</b>  <b>1</b> The wording “a procedure deemed appropriate by the Society” in 2.6.1-2(6)(c), Part 7 of the Rules means the tests specified in 8.5.2-2(10), Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p><b>4</b> The wording “procedures deemed appropriate by the Society” in 2.6.1-5, Part 7 of the Rules means the tests specified in Chapter 11, Part 6 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>Chapter 4      SHAFTINGS</b></p> <p><b>4.2 Materials, Construction and Strength</b></p> <p><b>4.2.7 Corrosion Protection of Propeller Shafts and Stern Tube Shafts</b></p> <p>2 The wording “corrosion resistant materials approved by the Society” in 4.2.7-1(3) means those materials which have been subjected to approval tests specified in 2.4.2-5, Chapter 2, Part 6 of the “Guidance for the Approval of Materials and Equipment for Marine Use” and then which obtain type <u>approval</u> of machinery and equipment as a corrosion resistant material for propeller shafts or stern tube shafts.</p> <p align="center"><b>Chapter 10      PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES</b></p> <p><b>10.1 General</b></p> <p><b>10.1.6 Use of Special Materials</b></p> <p>1 The wording “requirements specified otherwise” in 10.1.6-1, Part 7 of the Rules means as follows.</p> <p>(1) In cases where rubber hoses, Teflon hoses or nylon</p>	<p align="center"><b>Chapter 4      SHAFTINGS</b></p> <p><b>4.2 Materials, Construction and Strength</b></p> <p><b>4.2.7 Corrosion Protection of Propeller Shafts and Stern Tube Shafts</b></p> <p>2 The wording “corrosion resistant materials approved by the Society” in 4.2.7-1(3) means those materials which have been subjected to approval tests specified in 2.4.2-5, Chapter 2, Part 6 of the “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use” and then which obtain type approval <u>of use</u> of machinery and equipment as a corrosion resistant material for propeller shafts or stern tube shafts.</p> <p align="center"><b>Chapter 10      PIPES, VALVES, PIPE FITTINGS AND AUXILIARIES</b></p> <p><b>10.1 General</b></p> <p><b>10.1.6 Use of Special Materials</b></p> <p>1 The wording “requirements specified otherwise” in 10.1.6-1, Part 7 of the Rules means as follows.</p> <p>(1) In cases where rubber hoses, Teflon hoses or nylon</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>hoses are used for the following pipes, only materials approved in accordance with the <b>Guidance for the Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(a) Pipes of Group I or Group II  (b) Pipes likely to cause fire or flooding in cases where they rupture</p> <p>(2) Only plastic pipes (including vinyl pipes) approved by the Society in accordance with <b>Chapter 6, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(3) (Omitted)</p> <p><b>10.3 Construction of Valves and Pipe Fittings</b></p> <p><b>10.3.3 Mechanical Joints</b>  The wording “mechanical joints are to be of a Society approved type” stipulated in <b>10.3.3-1, Part 7 of the Rules</b> refers to those mechanical joints approved in accordance with <b>Chapter 9, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p> <p><b>10.3.4 Flexible Hose Assemblies</b>  <b>1</b> The wording “to be approved by the Society” in <b>10.3.4-2, Part 7 of the Rules</b> means that approval is to be made in accordance with <b>2.4.2-11, Chapter 2, Part 6 of the Guidance for the Approval of Materials and Equipment for Marine Use</b>.</p>	<p>hoses are used for the following pipes, only materials approved in accordance with the <b>Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(a) Pipes of Group I or Group II  (b) Pipes likely to cause fire or flooding in cases where they rupture</p> <p>(2) Only plastic pipes (including vinyl pipes) approved by the Society in accordance with <b>Chapter 6, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b> are to be used.</p> <p>(3) (Omitted)</p> <p><b>10.3 Construction of Valves and Pipe Fittings</b></p> <p><b>10.3.3 Mechanical Joints</b>  The wording “mechanical joints are to be of a Society approved type” stipulated in <b>10.3.3-1, Part 7 of the Rules</b> refers to those mechanical joints approved in accordance with <b>Chapter 9, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>.</p> <p><b>10.3.4 Flexible Hose Assemblies</b>  <b>1</b> The wording “to be approved by the Society” in <b>10.3.4-2, Part 7 of the Rules</b> means that approval is to be made in accordance with <b>2.4.2-11, Chapter 2, Part 6 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use</b>.</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>



Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>Chapter 11 PIPING SYSTEMS</b></p> <p><b>11.8 Sounding Pipes</b></p> <p><b>11.8.4 Construction of Liquid Level Indicators</b> The wording “a type that has been approved by the Society” in 11.8.4, Part 7 of the Rules means those liquid level indicators approved in accordance with the requirements of Chapter 4, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use and the wording “other standards approved by the Society” means <i>JIS F 7211</i> “5K level gauges with valves”, <i>JIS F 7215</i> “Flat glass oil level gauges” or any equivalent standards.</p> <p><b>Chapter 14 AUTOMATIC AND REMOTE CONTROL</b></p> <p><b>14.7 Tests</b></p> <p><b>14.7.1 Shop Tests</b> 2 The wording “The procedures for these tests are to be deemed appropriate by the Society” specified in 14.7.1(1), Part 7 of the Rules means those procedures in accordance with Chapter 1, Part 7 of “Guidance for the Approval of Materials and Equipment for Marine Use.”</p>	<p><b>Chapter 11 PIPING SYSTEMS</b></p> <p><b>11.8 Sounding Pipes</b></p> <p><b>11.8.4 Construction of Liquid Level Indicators</b> The wording “a type that has been approved by the Society” in 11.8.4, Part 7 of the Rules means those liquid level indicators approved in accordance with the requirements of Chapter 4, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use and the wording “other standards approved by the Society” means <i>JIS F 7211</i> “5K level gauges with valves”, <i>JIS F 7215</i> “Flat glass oil level gauges” or any equivalent standards.</p> <p><b>Chapter 14 AUTOMATIC AND REMOTE CONTROL</b></p> <p><b>14.7 Tests</b></p> <p><b>14.7.1 Shop Tests</b> 2 The wording “The procedures for these tests are to be deemed appropriate by the Society” specified in 14.7.1(1), Part 7 of the Rules means those procedures in accordance with Chapter 1, Part 7 of “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.”</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>Part 8 ELECTRICAL INSTALLATIONS</b></p> <p align="center"><b>Chapter 1 GENERAL</b></p> <p><b>1.2 Testing</b></p> <p><b>1.2.1 Shop Tests</b>  <b>5</b> The wording “to be subjected to type tests” in 1.2.1-4, Part 8 of the Rules means Part 8 of the Guidance for the Approval of Materials and Equipment for Marine Use. Equipment and cables approved are made public in the List of Approved Materials and Equipment.</p> <p align="center"><b>Chapter 2 ELECTRICAL INSTALLATIONS AND SYSTEM DESIGN</b></p> <p><b>2.9 Cables</b></p> <p><b>2.9.13 Supports and Fixing of Cables</b>  <b>4</b> The wording “any tests otherwise specified by the Society” referred to in 2.9.13-3(4)(a), Part 8 of the Rules are those tests specified in 3.4.2, Part 7 of the Guidance for the Approval of Materials and Equipment for Marine Use.</p> <p><b>5</b> The wording “those tests” referred to in 2.9.13-3(4)(f),</p>	<p align="center"><b>Part 8 ELECTRICAL INSTALLATIONS</b></p> <p align="center"><b>Chapter 1 GENERAL</b></p> <p><b>1.2 Testing</b></p> <p><b>1.2.1 Shop Tests</b>  <b>5</b> The wording “to be subjected to type tests” in 1.2.1-4, Part 8 of the Rules means Part 8 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use. Equipment and cables approved are made public in the List of Approved Materials and Equipment.</p> <p align="center"><b>Chapter 2 ELECTRICAL INSTALLATIONS AND SYSTEM DESIGN</b></p> <p><b>2.9 Cables</b></p> <p><b>2.9.13 Supports and Fixing of Cables</b>  <b>4</b> The wording “any tests otherwise specified by the Society” referred to in 2.9.13-3(4)(a), Part 8 of the Rules are those tests specified in 3.4.2, Part 7 of the Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use.</p> <p><b>5</b> The wording “those tests” referred to in 2.9.13-3(4)(f),</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the</p>







Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>((b) and (c) are omitted) ((3) to (5) are omitted)</p> <p><b>3.5.8 Gas Measurement</b> 2 The wording “deemed appropriate by the Society” in 3.5.8(1) and (2), Part 9 of the Rules means to be approved by the Society in accordance with Chapter 7, Part 7 of “Guidance for the Approval of Materials and Equipment for Marine Use” or to pass the test of the organization deemed appropriate by the Society.</p> <p style="text-align: center;"><b>Chapter 7 CONTAINMENT OF FIRE AND STRUCTURAL INTEGRITY</b></p> <p><b>7.3 Special Requirements for Tank Barges</b></p> <p><b>7.3.2 Protection of Cargo Tank Structure against Pressure or Vacuum</b> 1 The performance, installation procedures, etc. of pressure/vacuum valves specified in 7.3.2-1(1), Part 9 of the Rules are to comply with the following requirements. The wording “the procedure deemed appropriate by the Society” means the procedure specified in Chapter 7, Part 6 of “Guidance for the Approval of Materials and Equipment for Marine Use”. Approved pressure/vacuum valves are made public on “List of approved materials and equipment”. ((1) to (3) are omitted) 3 The design, arrangement, etc. of high level alarms and</p>	<p>((b) and (c) are omitted) ((3) to (5) are omitted)</p> <p><b>3.5.8 Gas Measurement</b> 2 The wording “deemed appropriate by the Society” in 3.5.8(1) and (2), Part 9 of the Rules means to be approved by the Society in accordance with Chapter 7, Part 7 of “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use” or to pass the test of the organization deemed appropriate by the Society.</p> <p style="text-align: center;"><b>Chapter 7 CONTAINMENT OF FIRE AND STRUCTURAL INTEGRITY</b></p> <p><b>7.3 Special Requirements for Tank Barges</b></p> <p><b>7.3.2 Protection of Cargo Tank Structure against Pressure or Vacuum</b> 1 The performance, installation procedures, etc. of pressure/vacuum valves specified in 7.3.2-1(1), Part 9 of the Rules are to comply with the following requirements. The wording “the procedure deemed appropriate by the Society” means the procedure specified in Chapter 7, Part 6 of “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”. Approved pressure/vacuum valves are made public on “List of approved materials and equipment”. ((1) to (3) are omitted) 3 The design, arrangement, etc. of high level alarms and</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p> <p>Changes due to the renaming of the “Guidance for the Approval”</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>level detecting devices of an overflow control system specified in <b>7.3.2-3(1), Part 9 of the Rules</b> are to comply with the following requirements. The wording “procedure deemed appropriate by the Society” in <b>7.3.2-3(1), Part 9 of the Rules</b> means the procedure specified in <b>Chapter 7, Part 6 of “Guidance for the Approval of Materials and Equipment for Marine Use”</b>. Approved high level alarms and level detecting devices are made public on <b>“List of approved materials and equipment”</b>.                      ((1) and (2) are omitted)</p>	<p>level detecting devices of an overflow control system specified in <b>7.3.2-3(1), Part 9 of the Rules</b> are to comply with the following requirements. The wording “procedure deemed appropriate by the Society” in <b>7.3.2-3(1), Part 9 of the Rules</b> means the procedure specified in <b>Chapter 7, Part 6 of “Guidance for the Approval <u>and Type Approval</u> of Materials and Equipment for Marine Use”</b>. Approved high level alarms and level detecting devices are made public on <b>“List of approved materials and equipment”</b>.                      ((1) and (2) are omitted)</p>	<p>Changes due to the renaming of the “Guidance for the Approval”</p>

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Amended	Original	Remarks
<p><b>GUIDANCE FOR THE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE</b></p> <p><b>Part <u>1</u> GENERAL</b></p> <p><b>1.1 Application</b></p> <p>1 This guidance applies to tests and inspection of materials and equipment for marine use for which advance approval by the NIPPON KAIJI KYOKAI (hereinafter referred to as “the Society”) are required by the relevant requirements in <b>Rules for the Survey and Construction of Steel Ships, Rules for Cargo Handling Appliances, Rules for Cargo Refrigerating Installations, Rules for Diving Systems, Rules for Marine Pollution Prevention Systems, Rules for Ballast Water Management Installations, Rules for Safety Equipment, Rules for the Survey and Construction of Passenger Ships, Rules for High Speed Craft, Rules for the Survey and Construction of Inland Waterway Ships, Rules for the Survey and Construction of Ships of Fibreglass Reinforced Plastics and Rules for Floating Docks, and their Guidance</b> (hereinafter referred to as “Rules etc.”).</p> <p><u>Notwithstanding the absence of specific requirements in this guidance, the Society may, upon application, conduct examination, testing, and inspection in accordance with the</u></p>	<p><b>GUIDANCE FOR THE APPROVAL <u>AND TYPE APPROVAL</u> OF MATERIALS AND EQUIPMENT FOR MARINE USE</b></p> <p><b>Part <u>I</u> GENERAL</b></p> <p><b>1.1 Application</b></p> <p>1 This guidance applies to tests and inspection of materials and equipment for marine use for which advance approval <u>or type approval</u> by the NIPPON KAIJI KYOKAI (hereinafter referred to as “the Society”) are required by the relevant requirements in <b>Rules for the Survey and Construction of Steel Ships, Rules for Cargo Handling Appliances, Rules for Cargo Refrigerating Installations, Rules for Diving Systems, Rules for Marine Pollution Prevention Systems, Rules for Ballast Water Management Installations, Rules for Safety Equipment, Rules for the Survey and Construction of Passenger Ships, Rules for High Speed Craft, Rules for the Survey and Construction of Inland Waterway Ships, Rules for the Survey and Construction of Ships of Fibreglass Reinforced Plastics and Rules for Floating Docks, and their Guidance</b> (hereinafter referred to as “Rules etc.”).</p> <p><u>(Newly added)</u></p>	<p>To align with the structure of other rules, the General Provisions are designated as Part 1, and the former Parts 1 to 4 are reorganized accordingly.</p> <p>Terminology alignment</p> <p>For equipment and other items for which approval requirements are not specified in the Rules,</p>



**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><u>intent of the said guidance, and issue a certificate to manufacturers attesting that the equipment complies with technical requirements deemed appropriate by the Society.</u></p> <p><b>3</b> This guidance is, in principle, to apply to each manufacturing plant.</p> <p><b>4</b> The confirmation survey of manufacturing and quality control procedure required in the guidance may be dispensed with partly or totally subject to the approval in accordance with “<b>Rules for Approval of Manufacturers and Service Suppliers</b>”.</p> <p><b>5</b> In cases where the manufacturing process and the test result have been approved by another organization and the manufacturer has a data showing actual manufacturing records within the specific period, the Society will take into account such records and tests results and may exempt the part or all of the approval tests for the manufacturing processes for materials and equipment for marine use required by this guidance.</p> <p><b>6</b> At the inspections, tests, and surveys, etc. (hereinafter referred together as “surveys” in this sub-paragraph), in lieu of traditional ordinary surveys where the Surveyor is in attendance, the Society may approve other survey methods which it considers to be appropriate.</p> <p><b>1.2 Purpose</b></p> <p>The purpose of this guidance is to specify the procedures for</p>	<p><b>2</b> This guidance is, in principle, to apply to each manufacturing plant.</p> <p><b>3</b> The confirmation survey of manufacturing and quality control procedure required in the guidance may be dispensed with partly or totally subject to the approval in accordance with “<b>Rules for Approval of Manufacturers and Service Suppliers</b>”.</p> <p><b>4</b> In cases where the manufacturing process and the test result have been approved by another organization and the manufacturer has a data showing actual manufacturing records within the specific period, the Society will take into account such records and tests results and may exempt the part or all of the approval tests for the manufacturing processes for materials and equipment for marine use required by this guidance.</p> <p><b>5</b> At the inspections, tests, and surveys, etc. (hereinafter referred together as “surveys” in this sub-paragraph), in lieu of traditional ordinary surveys where the Surveyor is in attendance, the Society may approve other survey methods which it considers to be appropriate.</p> <p><b>1.2 Purpose</b></p> <p>The purpose of this guidance is to specify the procedures for</p>	<p>provisions for certification of conformity shall be established for those deemed appropriate by the Society.</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>approval by the Society of the materials and equipment for marine use delivered from manufacturing plants as finished products in the course of examinations for the construction, materials, scantlings and workmanship of the hull, equipment and machinery required by <b>2.1.1, Part B of Rules for the Survey and Construction of Steel Ships</b> excluding the examinations for hull outfitting work and machinery assembly and installation work carried out at shipyards or manufacturer’s shops.</p> <p style="text-align: center;"><b>Chapter 2      DEFINITIONS</b></p> <p><b>2.1 Approval</b></p> <p>Approval <u>in this guidance</u> means to certify for the manufacturers of materials and equipment for marine use that materials and equipment comply with this guidance <u>based on the examinations, tests and inspections there. In principle, the types of approval are to be those specified in 2.2 and 2.3. Approvals that do not fall under these categories are to be treated as specified in 2.4.</u></p> <p>(Delete)</p> <p>(Delete)</p>	<p>approval <u>and type approval</u> by the Society of the materials and equipment for marine use delivered from manufacturing plants as finished products in the course of examinations for the construction, materials, scantlings and workmanship of the hull, equipment and machinery required by <b>2.1.1, Part B of Rules for the Survey and Construction of Steel Ships</b> excluding the examinations for hull outfitting work and machinery assembly and installation work carried out at shipyards or manufacturer’s shops.</p> <p style="text-align: center;"><b>Chapter 2      DEFINITIONS</b></p> <p><b>2.1 Approval</b></p> <p>Approval means to certify for the manufacturers of <u>the materials and equipment for marine use that <u>the</u> materials and equipment comply with this guidance <u>by carrying out the examination, tests and inspection specified in this guidance for the materials and equipment.</u></u></p> <p><b>2.2 Type Approval</b></p> <p><u>Type Approval means to certify for the manufacturers of the materials and equipment for marine use that the materials and equipment comply with the provisions for the type approved products in this guidance by carrying out the examination, tests and inspection specified in this guidance for the materials and</u></p>	<p>To amend the definition of “approval”</p> <p>Delete</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>(Delete)</p> <p><b>2.2 Approval of Manufacturing Process</b></p> <p>Approval of Manufacturing Process means, on condition that the uniform quality of the products can be ensured, to certify for the manufacturers that the manufacturing process complies with the provisions in this guidance by carrying out the examination, tests and inspection specified in this guidance for their typical sample. <u>Additionally, the inspection of products at the time of shipment is subject to relevant requirement in the Rules for the Survey and Construction of Steel Ships and other technical rules of the Society.</u></p> <p><b>2.3 Type Approval</b></p> <p><u>Approval of Use</u> means, for the equipment for marine use to which the advance approval by the Society for their use is required by the Rules etc. before installed on board, to certify for the manufacturers that the <u>equipment and materials</u> complies with the provisions <u>regarding quality management and products</u> in this guidance by carrying out the examination, tests and inspection for their typical sample <u>in principal</u>. <u>Additionally, the inspection of products at the time of shipment is subject to relevant requirements in the Rules for the Survey and Construction of Steel Ships and other</u></p>	<p><u>equipment. For type approved products, tests and inspection are not required to individual products.</u></p> <p><b><u>2.3 Approval of Mass Produced Machinery and Equipment</u></b></p> <p><b>2.4 Approval of Manufacturing Process</b></p> <p>Approval of Manufacturing Process means, on condition that the uniform quality of the products can be ensured, to certify for the manufacturers that the manufacturing process complies with the provisions in this guidance by carrying out the examination, tests and inspection specified in this guidance <u>in advance</u> for their typical sample.</p> <p><b>2.5 Approval of Use</b></p> <p><u>Approval of Use</u> means, for the equipment for marine use to which the advance approval by the Society for their use is required by the Rules etc. before installed on board, to certify for the manufacturers that the equipment complies with the provisions in this guidance by carrying out the examination, tests and inspection for their typical sample.</p>	<p>To revise the definition of approval of manufacturing process</p> <p>To change “approval of use” to “type approval” To include provisions related to quality control in the definition</p>

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Amended	Original	Remarks
<p><u>technical rules of the Society.</u></p> <p><b><u>2.4 Other Approval</u></b></p> <p><u>Approvals which do not fall under 2.2 and 2.3, and which are carried out to prove the conformity of onboard materials, onboard equipment, etc. to the functions, performance, etc. specified in the construction method, standards, regulations, etc.</u></p> <p><b>(Delete)</b></p> <p>(Delete)</p> <p><b>(Delete)</b></p> <p>(Delete)</p>	<p><b>(Newly added)</b></p> <p>(Newly added)</p> <p><b><u>2.6 Approval of Standardized Design</u></b></p> <p><u>Approval of Standardized Design means a method to certifies for the manufacturers that the drawings and documents specifying the particulars, construction, dimensions and materials of equipment for marine use may be dealt with as the standard design, by conducting the approval for these drawings in advance.</u></p> <p><b><u>2.7 Approval of Prototype</u></b></p> <p><u>Approval of prototype means to certify for the manufacturers that machinery and equipment for marine use comply with the provisions in this Guidance by carrying out the examinations, tests and inspection against the prototype of these products which are required by the Rules or Guidance that prototype of products is to be approved by the Society in advance before products are sent to markets.</u></p>	<p>To define approvals for items not covered by 2.2 and 2.3 of this chapter, such as “approval of cable laying”</p> <p>To delete “Approval of standard design” due to its transfer to Appendix of Part B.</p> <p>To delete the prototype approval in order to replace it with type approval</p>

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Amended	Original	Remarks
<p style="text-align: center;"><b>Part <u>2</u> METALLIC MATERIALS</b></p> <p style="text-align: center;"><b>Chapter 1 APPROVAL OF MANUFACTURING PROCESS OF ROLLED STEELS</b></p> <p><b>1.2 Approval Application</b></p> <p><b>1.2.1 Approval Application Form</b>            Manufacturer who applies for the approval of the manufacturing process of rolled steels is to submit the appropriate application form (<b>Form 1-1</b>) filled in with required data and information to the Society (branch office concerned). For applications for the approval of the manufacturing process of corrosion resistant steel for cargo oil tanks specified in <b>3.13, Part K of the Rules for the Survey and Construction of Steel Ships</b>, the appropriate application form (<b>Form 1-2</b>) is to be used.</p> <p><b>1.2.2 Documents to be Submitted</b>  <b>1</b> <u>Each</u> of the documents given in (1) and (2) are to be submitted together with the appropriate application form specified in 1.2.1.            ((1) and (2) are omitted)</p>	<p style="text-align: center;"><b>Part <u>1</u> METALLIC MATERIALS</b></p> <p style="text-align: center;"><b>Chapter 1 APPROVAL OF MANUFACTURING PROCESS OF ROLLED STEELS</b></p> <p><b>1.2 Approval Application</b></p> <p><b>1.2.1 Approval Application Form</b>            Manufacturer who applies for the approval of the manufacturing process of rolled steels is to submit <u>a copy of</u> the appropriate application form (<b>Form 1-1</b>) filled in with required data and information to the Society (branch office concerned). For applications for the approval of the manufacturing process of corrosion resistant steel for cargo oil tanks specified in <b>3.13, Part K of the Rules for the Survey and Construction of Steel Ships</b>, the appropriate application form (<b>Form 1-2</b>) is to be used.</p> <p><b>1.2.2 Documents to be Submitted</b>  <b>1</b> <u>Three copies each</u> of the documents given in (1) and (2) are to be submitted together with the appropriate application form specified in 1.2.1.            ((1) and (2) are omitted)</p>	<p>To align with the structure of other rules, the General Provisions are designated as Part 1, and the former Parts 1 to 4 are reorganized accordingly. Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>1.4 Approval Test</b></p> <p><b>1.4.2 Selection of Test Samples</b></p> <p>4 Where the maximum manufacturing thicknesses of rolled steels for hulls, rolled steels for low temperature service and high strength rolled steels for offshore structures is more than 50 <i>mm</i> and in cases where the first approval of at least one item of deoxidation practice, grain refining and micro-alloying elements, heat treatment, steel making process and steel casting process, the Society may request an additional test sample of which thickness is indicated with a ● mark in <b>Table 2.1-1</b> or some other proper thickness, in addition to the test samples in accordance with -2.</p> <p style="padding-left: 40px;">Fig. 2.1-1 Selection of Test Samples (an example) (Figure is omitted)</p> <p style="padding-left: 40px;">Table 2.1-1 Standard Thickness and Dimensions of Test Samples (Table is omitted)</p> <p><b>1.4.3 Details of Test</b></p> <p>1 Approval tests for each of rolled steels are to be performed for each test item indicated with a ○ mark in <b>Table 2.1-2</b> and the test procedure and judgement standard are to be accordance with <b>Table 2.1-3</b>. However, when deemed necessary by the Society, Society may request the increase of test piece, addition of test item (except the test item indicated in <b>Table 2.1-2</b> which is included the test related to hot workability, fatigue test, weld cracking test, <i>CTOD</i> tests of welded joints etc.) and submission of proper technical information.</p>	<p><b>1.4 Approval Test</b></p> <p><b>1.4.2 Selection of Test Samples</b></p> <p>4 Where the maximum manufacturing thicknesses of rolled steels for hulls, rolled steels for low temperature service and high strength rolled steels for offshore structures is more than 50 <i>mm</i> and in cases where the first approval of at least one item of deoxidation practice, grain refining and micro-alloying elements, heat treatment, steel making process and steel casting process, the Society may request an additional test sample of which thickness is indicated with a ● mark in <b>Table 1.1-1</b> or some other proper thickness, in addition to the test samples in accordance with -2.</p> <p style="padding-left: 40px;">Fig. 1.1-1 Selection of Test Samples (an example) (Figure is omitted)</p> <p style="padding-left: 40px;">Table 1.1-1 Standard Thickness and Dimensions of Test Samples (Table is omitted)</p> <p><b>1.4.3 Details of Test</b></p> <p>1 Approval tests for each of rolled steels are to be performed for each test item indicated with a ○ mark in <b>Table 1.1-2</b> and the test procedure and judgement standard are to be accordance with <b>Table 1.1-3</b>. However, when deemed necessary by the Society, Society may request the increase of test piece, addition of test item (except the test item indicated in <b>Table 1.1-2</b> which is included the test related to hot workability, fatigue test, weld cracking test, <i>CTOD</i> tests of welded joints etc.) and submission of proper technical information.</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p>

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<p><b>3</b> For approval of the manufacturing process of the rolling bars for offshore chains, in the case of initial approval and/or changes in any approved conditions, the approval test specified in <b>2.4, Part 3</b> is to be carried out in addition to the test specified in this Chapter.</p> <p style="text-align: center;">Table <u>2</u>.1-2 Approval Test Items for Rolled Steels (Table is omitted)</p> <p>Table <u>2</u>.1-3 Approval Testing Method and Acceptance Criteria (Table is omitted)</p> <p><b>1.4.5 Test Reports</b></p> <p><b>1</b> After completion of the approval test, the manufacturer is to produce a report of the approval test and is to submit to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p> <p>Table <u>2</u>.1-4 Impact Test Temperature for Rolled Steel for Hull (Table is omitted)</p> <p>Table <u>2</u>.1-5 Impact Test Temperature for High Strength Rolled Steel for Offshore Structures (Table is omitted)</p> <p style="text-align: center;">Table <u>2</u>.1-6 Test Samples for Weldability Tests (Table is omitted)</p> <p>Table <u>2</u>.1-7 Post Weld Heat Treatment Procedures for High Strength Rolled Steels for Offshore Structures (Table is omitted)</p>	<p><b>3</b> For approval of the manufacturing process of the rolling bars for offshore chains, in the case of initial approval and/or changes in any approved conditions, the approval test specified in <b>2.4, Part 2</b> is to be carried out in addition to the test specified in this Chapter.</p> <p style="text-align: center;">Table <u>1</u>.1-2 Approval Test Items for Rolled Steels (Table is omitted)</p> <p>Table <u>1</u>.1-3 Approval Testing Method and Acceptance Criteria (Table is omitted)</p> <p><b>1.4.5 Test Reports</b></p> <p><b>1</b> After completion of the approval test, the manufacturer is to produce a report of the approval test and is to submit <u>three copies</u> to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p> <p>Table <u>1</u>.1-4 Impact Test Temperature for Rolled Steel for Hull (Table is omitted)</p> <p>Table <u>1</u>.1-5 Impact Test Temperature for High Strength Rolled Steel for Offshore Structures (Table is omitted)</p> <p style="text-align: center;">Table <u>1</u>.1-6 Test Samples for Weldability Tests (Table is omitted)</p> <p>Table <u>1</u>.1-7 Post Weld Heat Treatment Procedures for High Strength Rolled Steels for Offshore Structures (Table is omitted)</p>	<p>To align with the structure of other rules, the General Provisions are designated as Part 1, and the former Parts 1 to 4 are reorganized accordingly.</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p>

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Amended	Original	Remarks
<p>Table <u>2</u>.1-8 Maximum Hardness of Welding Hardness Test (Table is omitted)</p> <p>Table <u>2</u>.1-9 Selection of <i>CTOD</i> Test Specimens for Weldability Tests of High Strength Rolled Steels for Offshore Structurers (Table is omitted)</p> <p>Fig <u>2</u>.1-2 Examples of Notch Locations for Butt Welding Impact Tests (Figure is omitted)</p> <p><b>1.5 Approval</b></p> <p><b>1.5.1 Notification of Approval</b></p> <p>3 Notwithstanding -1 above, for the corrosion resistant steel for cargo oil tanks specified in <b>3.13, Part K of the Rules for the Survey and Construction of Steel Ships</b>, the Society grants approval of the manufacturing process for corrosion resistant steel for cargo oil tanks which have been deemed appropriate on the basis of the reports of the Surveyor and documents submitted in accordance with requirements in 1.2 through 1.4. In this case, a <u>“Certificate of Approval”</u> is published including the name of works, kind of corrosion resistant steel for cargo oil tanks, term of validity of approval etc. and at least the following items are described in “Particulars of Approval Conditions”.            ((1) to (5) are omitted)</p> <p><b>1.5.2 Validity of Approval</b></p> <p>Valid term of the “Certificate of Approval” specified in</p>	<p>Table <u>1</u>.1-8 Maximum Hardness of Welding Hardness Test (Table is omitted)</p> <p>Table <u>1</u>.1-9 Selection of <i>CTOD</i> Test Specimens for Weldability Tests of High Strength Rolled Steels for Offshore Structurers (Table is omitted)</p> <p>Fig <u>1</u>.1-2 Examples of Notch Locations for Butt Welding Impact Tests (Figure is omitted)</p> <p><b>1.5 Approval</b></p> <p><b>1.5.1 Notification of Approval</b></p> <p>3 Notwithstanding -1 above, for the corrosion resistant steel for cargo oil tanks specified in <b>3.13, Part K of the Rules for the Survey and Construction of Steel Ships</b>, the Society grants approval of the manufacturing process for corrosion resistant steel for cargo oil tanks which have been deemed appropriate on the basis of the reports of the Surveyor and documents submitted in accordance with requirements in 1.2 through 1.4. In this case, a <u>“Type Approval Certificate”</u> is published including the name of works, kind of corrosion resistant steel for cargo oil tanks, term of validity of approval etc. and at least the following items are described in “Particulars of Approval Conditions”.            ((1) to (5) are omitted)</p> <p><b>1.5.2 Validity of Approval</b></p> <p>Valid term of the “Certificate of Approval” specified in</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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<p><b>1.5.1-1 and 1.5.1-3</b> will be <i>5 years</i> from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in <b>1.5.3</b>, valid term will be <i>5 years</i> from the next day after the expiry date of the previous validity (hereinafter referred to as “date of renewal”).</p> <p><b>1.5.3 Renewal of Approval</b></p> <p><b>1</b> In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and the data showing actual manufacturing records (for example, chemical composition, mechanical properties, brittle crack arrest properties (in the case of steels considered to have the brittle crack arrest properties specified in <b>3.12, Part K of the Rules</b>) and thickness or dimension expressed in the form of histogram or statistics for each heat treatment) of the rolled steels or semi-finished products within the specific period together with the appropriate application form (<b>Form 1-1</b>) (in the case of corrosion resistant steel for cargo oil tanks, <b>Form 1-2</b>).</p> <p><b>3</b> The factory inspection specified in -2 is to be completed within the valid term of “Certificate of Approval” in principle. However, for unavoidable circumstance, the factory inspection may be completed within a period of <i>3 months</i> after the valid term upon the approval by the Society.</p> <p><b>6</b> Manufacturers whose approval is renewed are to return the old “Certificate of Approval” to the Society as soon as</p>	<p><b>1.5.1-1 and the “Type Approval Certificate” specified in 1.5.1-3</b> will be <i>5 years</i> from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in <b>1.5.3</b>, valid term will be <i>5 years</i> from the next day after the expiry date of the previous validity (hereinafter referred to as “date of renewal”).</p> <p><b>1.5.3 Renewal of Approval</b></p> <p><b>1</b> In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) (<u>in the case of the corrosion resistant steel for cargo oil tanks specified in 3.13, Part K of the Rules for the Survey and Construction of Steel Ships, the “Type Approval Certificate” (copy)</u>) and <u>three copies of</u> the data showing actual manufacturing records (for example, chemical composition, mechanical properties, brittle crack arrest properties (in the case of steels considered to have the brittle crack arrest properties specified in <b>3.12, Part K of the Rules</b>) and thickness or dimension expressed in the form of histogram or statistics for each heat treatment) of the rolled steels or semi-finished products within the specific period together with the appropriate application form (<b>Form 1-1</b>) (in the case of corrosion resistant steel for cargo oil tanks, <b>Form 1-2</b>).</p> <p><b>3</b> The factory inspection specified in -2 is to be completed within the valid term of “Certificate of Approval” or <u>“Type Approval Certificate”</u> in principle. However, for unavoidable circumstance, the factory inspection may be completed within a period of <i>3 months</i> after the valid term upon the approval by the Society.</p> <p><b>6</b> Manufacturers whose approval is renewed are to return the old “Certificate of Approval” or the <u>“Type Approval</u></p>	<p>Handling change</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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<p>possible after receiving the new certificate and the term of validity of the old certificate expires.</p> <p><b>1.5.4 Changes in the Approved Content</b></p> <p><b>1</b> In case of changes in the approved content such as those given in the following (1) through (9) are occurred, in response to the content of changes, documents corresponding to the requirements in 1.2.2 are to be submitted to the Society, in addition to the appropriate application form (Form 1-1) and a “Certificate of Approval” (copy). ((1) to (9) are omitted)</p> <p><b>2</b> For the corrosion resistant steel for cargo oil tanks specified in 3.13, <b>Part K of the Rules for the Survey and Construction of Steel Ships</b>, in case of changes in the approved content such as those given in the above -1(1) through (9) and following (1) and (2) are occurred, in response to the content of changes, each of documents corresponding to the requirements in 1.2.2 are to be submitted to the Society, in addition to the appropriate application form (Form 1-2) for Changes in the Approved Content of Manufacturing Process of Corrosion Resistant Steel for Cargo Oil Tanks” and the “Certificate of Approval” (copy).  ((1) and (2) are omitted)</p> <p><b>4</b> The Society is to examine the submitted data specified in -1 or -2 and reports of factory inspection and approval test specified in -3, and if the Society considers them appropriate, is to approve the changes in the approved content. In this case, as a rule, the validity of the “Certificate of Approval” specified</p>	<p>“Certificate” to the Society as soon as possible after receiving the new certificate and the term of validity of the old certificate expires.</p> <p><b>1.5.4 Changes in the Approved Content</b></p> <p><b>1</b> In case of changes in the approved content such as those given in the following (1) through (9) are occurred, in response to the content of changes, <u>three copies</u> of documents corresponding to the requirements in 1.2.2 are to be submitted to the Society, in addition to <u>a copy of</u> the appropriate application form (Form 1-1) and a “Certificate of Approval” (copy). ((1) to (9) are omitted)</p> <p><b>2</b> For the corrosion resistant steel for cargo oil tanks specified in 3.13, <b>Part K of the Rules for the Survey and Construction of Steel Ships</b>, in case of changes in the approved content such as those given in the above -1(1) through (9) and following (1) and (2) are occurred, in response to the content of changes, <u>three copies</u> each of documents corresponding to the requirements in 1.2.2 are to be submitted to the Society, in addition to <u>a copy of</u> the appropriate application form (Form 1-2) for Changes in the Approved Content of Manufacturing Process of Corrosion Resistant Steel for Cargo Oil Tanks” and the “<u>Type Approval Certificate</u>” (copy). ((1) and (2) are omitted)</p> <p><b>4</b> The Society is to examine the submitted data specified in -1 or -2 and reports of factory inspection and approval test specified in -3, and if the Society considers them appropriate, is to approve the changes in the approved content. In this case, as a rule, the validity of the “Certificate of Approval” specified</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>in -1 or -2 are not changed.</p> <p><b>5</b> Manufacturers whose request for changes in approved content is accepted are to return the old “Certificate of Approval” and the relevant “Particulars of Approval Conditions” to the Society as soon as possible after receiving the new certificate.</p> <p><b>1.5.5 Revocation of Approval</b>            In case any of the following (1) through (5) is relevant, the Society may revoke approval of the manufacturing process based on the requirements in this Chapter and give notice of the revocation to the manufacturer. The manufacturer which noticed the approval is withdrawn is to return “Certificate of Approval” and “Particulars of Approval Conditions” in question to the Society.            ((1) to (5) are omitted)</p> <p><b>Chapter 1A WELDABILITY CONFIRMATION OF ROLLED STEELS FOR HULL</b></p> <p><b>1A.1 General</b></p> <p><b>1A.1.1 Scope</b>  <b>1</b> (Omitted)  <b>2</b> (Omitted)  <b>3</b> The time of the weldability confirmation may be different from that of approval of manufacturing process specified in <b>Chapter 2</b> in this part.</p>	<p>in -1 or the “Type Approval Certificate” specified in -2 are not changed.</p> <p><b>5</b> Manufacturers whose request for changes in approved content is accepted are to return the old “Certificate of Approval” or old “Type Approval Certificate” and the relevant “Particulars of Approval Conditions” to the Society as soon as possible after receiving the new certificate.</p> <p><b>1.5.5 Revocation of Approval</b>            In case any of the following (1) through (5) is relevant, the Society may revoke approval of the manufacturing process based on the requirements in this Chapter and give notice of the revocation to the manufacturer. The manufacturer which noticed the approval is withdrawn is to return “Certificate of Approval” or “Type Approval Certificate” and “Particulars of Approval Conditions” in question to the Society.            ((1) to (5) are omitted)</p> <p><b>Chapter 1A WELDABILITY CONFIRMATION OF ROLLED STEELS FOR HULL</b></p> <p><b>1A.1 General</b></p> <p><b>1A.1.1 Scope</b>  <b>1</b> (Omitted)  <b>2</b> (Omitted)  <b>3</b> The time of the weldability confirmation may be different from that of approval of manufacturing process specified in <b>Chapter 1</b> in this part.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>To align with the structure of other rules, the General Provisions are designated as Part 1, and the former</p>

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Amended	Original	Remarks
<p><b>4</b> The requirements provided in <b>Chapter 2</b> in this part are applicable unless otherwise specified in this chapter.</p> <p><b>1A.2 Application of the Weldability Confirmation</b></p> <p><b>1A.2.1 Application Form</b>            Manufacturer who applies for the weldability confirmation of the rolled steels is to submit the appropriate application form (<b>Form 1-3</b>) filled in with required data and information to the Society (branch office concerned).</p> <p><b>1A.2.2 Documents to be Submitted</b>  <b>1</b> <u>Each</u> of the documents given in (1) and (2) are to be submitted together with the application form specified in <b>1A.2.1</b>.            ((1) and (2) are omitted)</p> <p><b>1A.4 Confirmation Test</b></p> <p><b>1A.4.5 Test Reports</b>  <b>1</b> After completion of the confirmation test, the manufacturer is to produce a report of the confirmation test and is to submit to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p>	<p><b>4</b> The requirements provided in <b>Chapter 1</b> in this part are applicable unless otherwise specified in this chapter.</p> <p><b>1A.2 Application of the Weldability Confirmation</b></p> <p><b>1A.2.1 Application Form</b>            Manufacturer who applies for the weldability confirmation of the rolled steels is to submit <u>a copy of</u> the appropriate application form (<b>Form 1-3</b>) filled in with required data and information to the Society (branch office concerned).</p> <p><b>1A.2.2 Documents to be Submitted</b>  <b>1</b> <u>Three copies</u> each of the documents given in (1) and (2) are to be submitted together with the application form specified in <b>1A.2.1</b>.            ((1) and (2) are omitted)</p> <p><b>1A.4 Confirmation Test</b></p> <p><b>1A.4.5 Test Reports</b>  <b>1</b> After completion of the confirmation test, the manufacturer is to produce a report of the confirmation test and is to submit <u>three copies</u> to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p>	<p>Parts 1 to 4 are reorganized accordingly. Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>Chapter 1B APPROVAL OF MANUFACTURING PROCESS OF SEMI-FINISHED PRODUCTS</b></p> <p><b>1B.2 Approval Application</b></p> <p><b>1B.2.1 Approval Application Form</b>                      Manufacturer who applies for the approval of the manufacturing process of semi-finished products is to submit the appropriate application form (<b>Form 1-4</b>) filled in with required data and information to the Society (branch office concerned).</p> <p><b>1B.2.2 Documents to be Submitted</b>                      1 Each of the documents given in (1) and (2) are to be submitted together with the appropriate application form specified in 1B.2.1.                      ((1) and (2) are omitted)</p> <p><b>1B.4 Approval Test</b></p> <p><b>1B.4.4 Test Reports</b>                      1 After completion of the approval test, the manufacturer is to produce a report of the approval test and is to submit to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p>	<p><b>Chapter 1B APPROVAL OF MANUFACTURING PROCESS OF SEMI-FINISHED PRODUCTS</b></p> <p><b>1B.2 Approval Application</b></p> <p><b>1B.2.1 Approval Application Form</b>                      Manufacturer who applies for the approval of the manufacturing process of semi-finished products is to submit <u>a copy of</u> the appropriate application form (<b>Form 1-4</b>) filled in with required data and information to the Society (branch office concerned).</p> <p><b>1B.2.2 Documents to be Submitted</b>                      1 <u>Three copies</u> each of the documents given in (1) and (2) are to be submitted together with the appropriate application form specified in 1B.2.1.                      ((1) and (2) are omitted)</p> <p><b>1B.4 Approval Test</b></p> <p><b>1B.4.4 Test Reports</b>                      1 After completion of the approval test, the manufacturer is to produce a report of the approval test and is to submit <u>three copies</u> to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>1B.5 Approval</b></p> <p><b>1B.5.3 Renewal of Approval</b></p> <p>1 In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and of the data showing actual manufacturing records (for example, chemical composition, mechanical properties and thickness or dimension expressed in the form of histogram or statistics) of the semi-finished products within the specific period together with the appropriate application form (Form 1-4).</p> <p><b>1B.5.4 Changes in the Approved Content</b></p> <p>1 In case of changes in the approved content such as those given in the following (1) through (5) are occurred, in response to the content of changes, documents corresponding to the requirements in 1B.2.2 are to be submitted to the Society, in addition to the appropriate application form (Form 1-4) and a “Certificate of Approval” (copy).</p> <p>((1) to (5) are omitted)</p>	<p><b>1B.5 Approval</b></p> <p><b>1B.5.3 Renewal of Approval</b></p> <p>1 In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and <u>three copies</u> of the data showing actual manufacturing records (for example, chemical composition, mechanical properties and thickness or dimension expressed in the form of histogram or statistics) of the semi-finished products within the specific period together with the appropriate application form (Form 1-4).</p> <p><b>1B.5.4 Changes in the Approved Content</b></p> <p>1 In case of changes in the approved content such as those given in the following (1) through (5) are occurred, in response to the content of changes, <u>three copies of</u> documents corresponding to the requirements in 1B.2.2 are to be submitted to the Society, in addition to <u>a copy of</u> the appropriate application form (Form 1-4) and a “Certificate of Approval” (copy).</p> <p>((1) to (5) are omitted)</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>Chapter 2 APPROVAL OF MANUFACTURING PROCESS OF STEEL PIPES</b></p> <p><b>2.2 Approval Application</b></p> <p><b>2.2.1 Approval Application Form</b> Manufacturers who applies for approval of the manufacturing process of steel pipes are to submit the appropriate application form (<b>Form 1-5</b>) filled in with required data and information to the Society.</p> <p><b>2.2.2 Data to be Submitted</b> <b>1</b> Each of the drawings and documents given in (1) through (8) are to be submitted together with the appropriate application form specified in 2.2.1. ((1) to (8) are omitted)</p> <p><b>2.4 Approval Test</b></p> <p><b>2.4.2 Details of Test</b> <b>1</b> Items of the approval test are to be as given in <b>Table 2.2-1</b>.</p> <p><b>2.4.4 Test Records</b> <b>1</b> After completion of the approval test, the manufacturer is to produce a record of the approval test and is to submit to the Society upon receiving confirmation by the Society's Surveyor.</p>	<p><b>Chapter 2 APPROVAL OF MANUFACTURING PROCESS OF STEEL PIPES</b></p> <p><b>2.2 Approval Application</b></p> <p><b>2.2.1 Approval Application Form</b> Manufacturers who applies for approval of the manufacturing process of steel pipes are to submit <u>a single copy</u> of the appropriate application form (<b>Form 1-5</b>) filled in with required data and information to the Society.</p> <p><b>2.2.2 Data to be Submitted</b> <b>1</b> <u>Three copies</u> each of the drawings and documents given in (1) through (8) are to be submitted together with the appropriate application form specified in 2.2.1. ((1) to (8) are omitted)</p> <p><b>2.4 Approval Test</b></p> <p><b>2.4.2 Details of Test</b> <b>1</b> Items of the approval test are to be as given in <b>Table 1.2-1</b>.</p> <p><b>2.4.4 Test Records</b> <b>1</b> After completion of the approval test, the manufacturer is to produce a record of the approval test and is to submit <u>three copies</u> to the Society upon receiving confirmation by the Society's Surveyor.</p>	<p>Terminology alignment</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p style="text-align: center;">Table <u>2.2</u>-1 Approval Test Items for Steel Pipes (Table is omitted)</p> <p><b>2.5 Approval</b></p> <p><b>2.5.3 Renewal of Approval</b>  <b>1</b> In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and the data showing actual manufacturing records (for example, chemical composition, mechanical properties, outer diameter and thickness expressed in the form of histogram or statistics) of the steel pipes within the specific period together with the appropriate application from (Form 1-5).</p> <p><b>2.5.4 Changes in the Approved Content</b>  <b>1</b> In case of changes in the approved content such as those given in the following (1) through (9) are occurred, in response to the content of changes, documents corresponding to the requirements in 2.2.2 are to be submitted to the Society, in addition to the appropriate application form (Form 1-5) and a “Certificate of Approval” (copy).</p> <p>((1) to (9) are omitted)</p>	<p style="text-align: center;">Table <u>1.2</u>-1 Approval Test Items for Steel Pipes (Table is omitted)</p> <p><b>2.5 Approval</b></p> <p><b>2.5.3 Renewal of Approval</b>  <b>1</b> In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and <u>three copies of</u> the data showing actual manufacturing records (for example, chemical composition, mechanical properties, outer diameter and thickness expressed in the form of histogram or statistics) of the steel pipes within the specific period together with the appropriate application from (Form 1-5).</p> <p><b>2.5.4 Changes in the Approved Content</b>  <b>1</b> In case of changes in the approved content such as those given in the following (1) through (9) are occurred, in response to the content of changes, <u>three copies of</u> documents corresponding to the requirements in 2.2.2 are to be submitted to the Society, in addition to <u>one copy of</u> the appropriate application form (Form 1-5) and a “Certificate of Approval” (copy).</p> <p>((1) to (9) are omitted)</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>



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Amended	Original	Remarks
<p><b>Chapter 3 APPROVAL OF MANUFACTURING PROCESS OF STEEL CASTINGS AND STEEL FORGINGS</b></p> <p><b>3.2 Application Procedure</b></p> <p><b>3.2.1 Application</b> Manufacturer who applies for the approval is to submit the appropriate application form (<b>Form 1-6</b>) filled in with the required items to the Society (branch office concerned).</p> <p><b>3.2.2 Data to be Submitted</b> <b>1</b> The reference data listed in (1) through (7) below, are to be submitted together with the application form specified in 3.2.1. ((1) to (7) are omitted)</p> <p><b>3.4 Approval Test</b></p> <p><b>3.4.3 Details of Test</b> Details of the tests for those listed in 3.4.1(1) are as follows. ((1) and (2) are omitted) (3) Tests The tests consist of the following items are to be carried out on the test samples, as the standard practice: (a) Sulphur print test and macro-structure analysis</p>	<p><b>Chapter 3 APPROVAL OF MANUFACTURING PROCESS OF STEEL CASTINGS AND STEEL FORGINGS</b></p> <p><b>3.2 Application Procedure</b></p> <p><b>3.2.1 Application</b> Manufacturer who applies for the approval is to submit <u>a single copy of</u> the appropriate application form (<b>Form 1-6</b>) filled in with the required items to the Society (branch office concerned).</p> <p><b>3.2.2 Data to be Submitted</b> <b>1</b> The reference data listed in (1) through (7) below, <u>each three copies,</u> are to be submitted together with the application form specified in 3.2.1. ((1) to (7) are omitted)</p> <p><b>3.4 Approval Test</b></p> <p><b>3.4.3 Details of Test</b> Details of the tests for those listed in 3.4.1(1) are as follows. ((1) and (2) are omitted) (3) Tests The tests consist of the following items are to be carried out on the test samples, as the standard practice: (a) Sulphur print test and macro-structure analysis</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to</p>

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Amended	Original	Remarks
<p>(The specimens are to be taken from sections <i>A-A</i>, <i>B-B</i> and <i>C-C</i> specified in Fig. <u>2.3-1</u>.)</p> <p>(b) Chemical composition analysis test (The specimens are to be taken from the positions asterisked in Fig. <u>2.3-1</u>.)</p> <p>(c) Micro-structure analysis (The specimens are to be taken from the positions asterisked in Fig. <u>2.3-1</u>.)</p> <p>(d) Hardness test (Positions in the vicinity of pin or journal surface. In the case of quenched and tempered steels, hardness distribution from the surface to the shaft centre.)</p> <p>(e) Tensile test and impact test (or bend test)(Tensile test specimens are to be taken as specified in Fig. <u>2.3-2</u>, and impact test (or bend test) specimens are to be taken as specified in Fig. <u>2.3-3</u>, as the standard practice.)</p> <p>(f) Non-destructive testing (The requirements specified in 5.1.10 or 6.1.10, Part K of the Rules for the Survey and Construction of Steel Ships apply correspondingly.)</p> <p>(g) Other tests deemed necessary by the Society</p> <p style="text-align: center;">Fig. <u>2.3-1</u> Sampling Positions (Figure is omitted)</p> <p style="text-align: center;">Fig. <u>2.3-2</u> Sampling Positions of Tensile Test Specimens (Figure is omitted)</p> <p style="text-align: center;">Fig. <u>2.3-3</u> Sampling Positions of Impact Test (or Bend Test) Specimens</p>	<p>(The specimens are to be taken from sections <i>A-A</i>, <i>B-B</i> and <i>C-C</i> specified in Fig. <u>1.3-1</u>.)</p> <p>(b) Chemical composition analysis test (The specimens are to be taken from the positions asterisked in Fig. <u>1.3-1</u>.)</p> <p>(c) Micro-structure analysis (The specimens are to be taken from the positions asterisked in Fig. <u>1.3-1</u>.)</p> <p>(d) Hardness test (Positions in the vicinity of pin or journal surface. In the case of quenched and tempered steels, hardness distribution from the surface to the shaft centre.)</p> <p>(e) Tensile test and impact test (or bend test)(Tensile test specimens are to be taken as specified in Fig. <u>1.3-2</u>, and impact test (or bend test) specimens are to be taken as specified in Fig. <u>1.3-3</u>, as the standard practice.)</p> <p>(f) Non-destructive testing (The requirements specified in 5.1.10 or 6.1.10, Part K of the Rules for the Survey and Construction of Steel Ships apply correspondingly.)</p> <p>(g) Other tests deemed necessary by the Society</p> <p style="text-align: center;">Fig. <u>1.3-1</u> Sampling Positions (Figure is omitted)</p> <p style="text-align: center;">Fig. <u>1.3-2</u> Sampling Positions of Tensile Test Specimens (Figure is omitted)</p> <p style="text-align: center;">Fig. <u>1.3-3</u> Sampling Positions of Impact Test (or Bend Test) Specimens</p>	<p>reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to</p>

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Amended	Original	Remarks
<p align="center">(Figure is omitted)</p> <p><b>3.4.5 Test Records</b>                      1 After completion of the approval test, the manufacturer is to produce records of approval test, and is to submit to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p> <p><b>3.5 Approval</b></p> <p><b>3.5.3 Renewal of Approval and Changes in the Approved Content</b>                      2 In case of application for renewal of approval specified in -1, data showing actual manufacturing records for the material classification (for example, chemical composition and mechanical properties expressed in the form of histogram of statistics) within the specific period are to be included. In this case, the Society conducts the factory inspection.</p> <p><b>Chapter 4 APPROVAL OF MANUFACTURING PROCESS OF CRANKSHAFTS UNDER SPECIAL REQUIREMENTS</b></p> <p><b>4.2 Application Procedures</b></p> <p><b>4.2.1 Data to be Submitted</b>                      The manufacturer who applies for an approval of the</p>	<p align="center">(Figure is omitted)</p> <p><b>3.4.5 Test Records</b>                      1 After completion of the approval test, the manufacturer is to produce records of approval test, and is to submit <u>three copies</u> to the Society (branch office concerned) upon receiving confirmation by the Society’s Surveyor.</p> <p><b>3.5 Approval</b></p> <p><b>3.5.3 Renewal of Approval and Changes in the Approved Content</b>                      2 In case of application for renewal of approval specified in -1, <u>three copies of</u> data showing actual manufacturing records for the material classification (for example, chemical composition and mechanical properties expressed in the form of histogram of statistics) within the specific period are to be included. In this case, the Society conducts the factory inspection.</p> <p><b>Chapter 4 APPROVAL OF MANUFACTURING PROCESS OF CRANKSHAFTS UNDER SPECIAL REQUIREMENTS</b></p> <p><b>4.2 Application Procedures</b></p> <p><b>4.2.1 Data to be Submitted</b>                      The manufacturer who applies for an approval of the</p>	<p>reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification</p>

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<p>manufacturing process mentioned in 4.1.1-1(2) is to submit the data showing the details of surface treatment in addition to those listed in 3.2.2-1.</p> <p><b>4.3 Approval Tests</b></p> <p><b>4.3.1 General</b> Approval tests are to be carried out in accordance with 3.4 to adopt the manufacturing process mentioned in 4.1.1-1(1) or (2). In this regard, the requirements in 3.4.3 are to be applied as follows.</p> <p>(1) Approval test for special forged crankshafts The test items listed below are to be added to those listed in 3.4.3(3).</p> <p>(a) Microscopic testing method for the non-metallic inclusions (as per <i>JIS G 0555</i>) (The specimens are to be taken from the positions asterisked in Fig. 2.3-1.)</p> <p>(b) Bending fatigue test on actual crank throw The number of test specimens is to be at least 2.</p> <p>(c) Rotational bending fatigue test on small-size test specimens (Dia. 10~20 mm) The number of test specimens is to be not less than 10 and they are to be taken from the positions described in Fig. 2.4-1 as the standard practice. In cases of approval for carbon steel forgings or where previous data on this test is available, this test may be omitted subject to approval by the Society.</p> <p>(2) (omitted)</p>	<p>manufacturing process mentioned in 4.1.1-1(2) is to submit <u>three copies</u> of the data showing the details of surface treatment in addition to those listed in 3.2.2-1.</p> <p><b>4.3 Approval Tests</b></p> <p><b>4.3.1 General</b> Approval tests are to be carried out in accordance with 3.4 to adopt the manufacturing process mentioned in 4.1.1-1(1) or (2). In this regard, the requirements in 3.4.3 are to be applied as follows.</p> <p>(1) Approval test for special forged crankshafts The test items listed below are to be added to those listed in 3.4.3(3).</p> <p>(a) Microscopic testing method for the non-metallic inclusions (as per <i>JIS G 0555</i>) (The specimens are to be taken from the positions asterisked in Fig. 1.3-1.)</p> <p>(b) Bending fatigue test on actual crank throw The number of test specimens is to be at least 2.</p> <p>(c) Rotational bending fatigue test on small-size test specimens (Dia. 10~20 mm) The number of test specimens is to be not less than 10 and they are to be taken from the positions described in Fig. 1.4-1 as the standard practice. In cases of approval for carbon steel forgings or where previous data on this test is available, this test may be omitted subject to approval by the Society.</p> <p>(2) (omitted)</p>	<p>of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p>

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Amended	Original	Remarks
<p>Fig. <u>2</u>.4-1 Sampling Positions of Bend Test Specimens (Figure is omitted)</p> <p><b>Chapter 5 APPROVAL OF MANUFACTURING PROCESS OF ALUMINIUM ALLOYS</b></p> <p><b>5.2 Approval Application</b></p> <p><b>5.2.1 Approval Application Form</b> Manufactures who applies for approval of the manufacturing process of aluminium alloys are to submit the appropriate application form (<b>Form 1-7</b>) filled in with required data and information to the Society.</p> <p><b>5.2.2 Data to be Submitted</b> <b>1</b> Each of the drawings and documents given in (1) through (8) are to be submitted together with the appropriate application form specified in 1.2.1. ((1) to (8) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.2 Details of Test</b> <b>1</b> (omitted) <b>2</b> The approval test items, method and evaluation criteria of the approval test are to be as given in <b>Table <u>2</u>.5-1</b> and <b>Table <u>2</u>.5-2</b> respectively.</p>	<p>Fig. <u>1</u>.4-1 Sampling Positions of Bend Test Specimens (Figure is omitted)</p> <p><b>Chapter 5 APPROVAL OF MANUFACTURING PROCESS OF ALUMINIUM ALLOYS</b></p> <p><b>5.2 Approval Application</b></p> <p><b>5.2.1 Approval Application Form</b> Manufactures who applies for approval of the manufacturing process of aluminium alloys are to submit <u>a single copy of</u> the appropriate application form (<b>Form 1-7</b>) filled in with required data and information to the Society.</p> <p><b>5.2.2 Data to be Submitted</b> <b>1</b> <u>Three copies each</u> of the drawings and documents given in (1) through (8) are to be submitted together with the appropriate application form specified in 1.2.1. ((1) to (8) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.2 Details of Test</b> <b>1</b> (omitted) <b>2</b> The approval test items, method and evaluation criteria of the approval test are to be as given in <b>Table <u>1</u>.5-1</b> and <b>Table <u>1</u>.5-2</b> respectively.</p>	<p>Terminology alignment</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p>

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Amended	Original	Remarks
<p><b>5.4.4 Test Records</b></p> <p>1 After completion of the approval test, the manufacturer is to produce a record of the approval test and is to submit to the Society upon receiving confirmation by the Society’s Surveyor.</p> <p>Table 2.5-1 Approval Test Items for Aluminium Alloys (Table is omitted)</p> <p>Table 2.5-2 Approval Testing Method and Acceptance Criteria (Table is omitted)</p> <p><b>5.5 Approval</b></p> <p><b>5.5.3 Renewal of Approval</b></p> <p>1 In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and the data showing actual manufacturing records (for example, chemical composition, mechanical properties for each grade and thickness expressed in the form of histogram or statistics) of the aluminium alloys within the specific period together with the appropriate application form (Form 1-7).</p> <p><b>5.5.4 Changes in the Approved Content</b></p> <p>1 In case of changes in the approved content such as those given in the following (1) through (9) is occurred, in response to the content of changes, documents corresponding to the requirements in 5.2.2 are to be submitted to the Society,</p>	<p><b>5.4.4 Test Records</b></p> <p>1 After completion of the approval test, the manufacturer is to produce a record of the approval test and is to submit <u>three copies</u> to the Society upon receiving confirmation by the Society’s Surveyor.</p> <p>Table 1.5-1 Approval Test Items for Aluminium Alloys (Table is omitted)</p> <p>Table 1.5-2 Approval Testing Method and Acceptance Criteria (Table is omitted)</p> <p><b>5.5 Approval</b></p> <p><b>5.5.3 Renewal of Approval</b></p> <p>1 In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and <u>three copies of the data</u> showing actual manufacturing records (for example, chemical composition, mechanical properties for each grade and thickness expressed in the form of histogram or statistics) of the aluminium alloys within the specific period together with the appropriate application form (Form 1-7).</p> <p><b>5.5.4 Changes in the Approved Content</b></p> <p>1 In case of changes in the approved content such as those given in the following (1) through (9) is occurred, in response to the content of changes, <u>three copies of documents</u> corresponding to the requirements in 5.2.2 are to be submitted</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>in addition to the appropriate application form (Form 1-7) and a “Certificate of Approval” (copy).</p> <p>((1) to (9) are omitted)</p> <p><b>Chapter 6 APPROVAL OF MANUFACTURING PROCESS OF PROPELLER CASTINGS</b></p> <p><b>6.2 Application Procedures</b></p> <p><b>6.2.2 Data to be Submitted</b></p> <p><b>1</b> Each of the documents given in (1) through (6) are to be submitted together with the appropriate application form specified in 6.2.1.</p> <p>((1) to (6) are omitted)</p>	<p>to the Society, in addition to <u>one copy of</u> the appropriate application form (Form 1-7) and a “Certificate of Approval” (copy).</p> <p>((1) to (9) are omitted)</p> <p><b>Chapter 6 APPROVAL OF MANUFACTURING PROCESS OF PROPELLER CASTINGS</b></p> <p><b>6.2 Application Procedures</b></p> <p><b>6.2.2 Data to be Submitted</b></p> <p><b>1</b> <u>Three copies each</u> of the documents given in (1) through (6) are to be submitted together with the appropriate application form specified in 6.2.1.</p> <p>((1) to (6) are omitted)</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>
<p><b>Chapter 7 APPROVAL OF MANUFACTURING PROCESS OF ALUMINIUM ALLOY SEAMLESS PIPES</b></p> <p><b>7.2 Approval Application</b></p> <p><b>7.2.1 Approval Application Form</b></p> <p>Manufacturers who apply for approval of the manufacturing process of aluminium alloy seamless pipes are to submit an application form filled in with the required data</p>	<p><b>Chapter 7 APPROVAL OF MANUFACTURING PROCESS OF ALUMINIUM ALLOY SEAMLESS PIPES</b></p> <p><b>7.2 Approval Application</b></p> <p><b>7.2.1 Approval Application Form</b></p> <p>Manufacturers who apply for approval of the manufacturing process of aluminium alloy seamless pipes are to submit <u>a single copy of</u> an application form filled in with</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>and information to the Society.</p> <p><b>7.2.2 Data to be Submitted</b>  <b>1</b> Each of the drawings and documents given in (1) through (8) are to be submitted together with the appropriate application form specified in 7.2.1.                      ((1) to (8) are omitted)</p> <p><b>7.4 Approval Tests</b></p> <p><b>7.4.2 Test Details</b>                      Approval tests for each of aluminium alloy seamless pipes are to be performed for each test item given in <b>Table 2.7-1</b> and the test procedure and judgement standard are to be accordance with <b>Table 2.7-2</b>. However, additional test pieces and test items as well as the submission of proper technical information may be requested when deemed necessary by Society.</p> <p><b>7.4.4 Test Reports</b>  <b>1</b> Upon completion of approval test, the manufacturer is to produce a record of the approval test , have the record verified by the Society surveyor and then submit to the Society.</p> <p style="text-align: center;">Table 2.7-1 Approval Test Items for Aluminium Alloy Seamless Pipes (Table is omitted)</p> <p style="text-align: center;">Table 2.7-2 Approval Testing Method and Acceptance Criteria (Table is omitted)</p>	<p>the required data and information to the Society.</p> <p><b>7.2.2 Data to be Submitted</b>  <b>1</b> <u>Three copies</u> each of the drawings and documents given in (1) through (8) are to be submitted together with the appropriate application form specified in 7.2.1.                      ((1) to (8) are omitted)</p> <p><b>7.4 Approval Tests</b></p> <p><b>7.4.2 Test Details</b>                      Approval tests for each of aluminium alloy seamless pipes are to be performed for each test item given in <b>Table 1.7-1</b> and the test procedure and judgement standard are to be accordance with <b>Table 1.7-2</b>. However, additional test pieces and test items as well as the submission of proper technical information may be requested when deemed necessary by Society.</p> <p><b>7.4.4 Test Reports</b>  <b>1</b> Upon completion of approval test, the manufacturer is to produce a record of the approval test , have the record verified by the Society surveyor and then submit <u>three copies</u> to the Society.</p> <p style="text-align: center;">Table 1.7-1 Approval Test Items for Aluminium Alloy Seamless Pipes (Table is omitted)</p> <p style="text-align: center;">Table 1.7-2 Approval Testing Method and Acceptance Criteria</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to</p>



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Amended	Original	Remarks
<p><b>7.5 Approval</b></p> <p><b>7.5.3 Renewal of Approval</b></p> <p>1 In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and the data showing actual manufacturing records (for example, chemical composition, mechanical properties, outer diameter and thickness expressed in the form of histogram or statistics for each heat treatment) of the aluminium alloy seamless pipes within the specific period together with the appropriate application form.</p> <p><b>7.5.4 Changes in the Approved Content</b></p> <p>1 In case of changes in the approved content such as those given in the following (1) through (7) is occurred, in response to the content of changes, documents corresponding to the requirements in 7.2.2 are to be submitted to the Society, in addition to the “Certificate of Approval”.</p> <p>((1) to (7) are omitted)</p>	<p style="text-align: center;">(Table is omitted)</p> <p><b>7.5 Approval</b></p> <p><b>7.5.3 Renewal of Approval</b></p> <p>1 In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and <u>three copies</u> of the data showing actual manufacturing records (for example, chemical composition, mechanical properties, outer diameter and thickness expressed in the form of histogram or statistics for each heat treatment) of the aluminium alloy seamless pipes within the specific period together with the appropriate application form.</p> <p><b>7.5.4 Changes in the Approved Content</b></p> <p>1 In case of changes in the approved content such as those given in the following (1) through (7) is occurred, in response to the content of changes, <u>three copies</u> of documents corresponding to the requirements in 7.2.2 are to be submitted to the Society, in addition to <u>a copy</u> of the “Certificate of Approval”.</p> <p>((1) to (7) are omitted)</p>	<p>reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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<b>Part 3 EQUIPMENT</b>	<b>Part 2 EQUIPMENT</b>	
<b>Chapter 1 APPROVAL OF MANUFACTURING PROCESS OF ANCHORS</b>	<b>Chapter 1 APPROVAL OF MANUFACTURING PROCESS OF ANCHORS</b>	
<b>1.2 Approval Application</b>	<b>1.2 Approval Application</b>	
<b>1.2.1 Approval Application Forms</b>	<b>1.2.1 Approval Application Forms</b>	
1 Manufacturers who apply for the approval of the manufacturing process of anchor are to submit <u>a copy of</u> the appropriate application form ( <b>Form 2-1</b> ) filled in with the required data and information to the Society (branch office concerned).	1 Manufacturers who apply for the approval of the manufacturing process of anchor are to submit the appropriate application form ( <b>Form 2-1</b> ) filled in with the required data and information to the Society (branch office concerned).	To delete the specification of the number of copies due to digitization
<b>1.2.2 Documents to be Submitted</b>	<b>1.2.2 Documents to be Submitted</b>	
<u>Each</u> of the documents listed below are to be submitted together with the appropriate application form specified in 1.2.1.	<u>Three copies</u> each of the documents listed below are to be submitted together with the appropriate application form specified in 1.2.1.	To delete the specification of the number of copies due to digitization
((1) to (8) are omitted)	((1) to (8) are omitted)	
<b>1.5 Approval</b>	<b>1.5 Approval</b>	
<b>1.5.3 Renewal of Approval and Changes in the Approved Content</b>	<b>1.5.3 Renewal of Approval and Changes in the Approved Content</b>	
1 In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 1.5.1, the applicant is to apply for renewal of approval in accordance with the requirements in 1.2. In such cases, the	1 In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 1.5.1, the applicant is to apply for renewal of approval in accordance with the requirements in 1.2. In such cases, <u>a copy</u>	To delete the specification of the number of copies due to digitization

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<p>“Certificate of Approval” and the documents specified in 1.2.2 are to be submitted together with the appropriate application form (<b>Form 2-1</b>). However, the data to be submitted may be limited to reference data on the changes.</p> <p>2 In the case of application for renewal of approval as specified in -1, <u>three sets of</u> data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been performed since the last “Certificate of Approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p> <p><b>1.6 Approval of Manufacturing Process of High Holding Power Anchors</b></p> <p><b>1.6.1 High Holding Power Anchors</b></p> <p>The approval procedure for manufacturing of high holding power anchor (the anchor specified in 2.1.4-2, <b>Part L of the Rules</b>, having the holding power two times or more of that of ordinary anchor, and if it is used without subjected to the reduction as specified in 14.3.1.2-6, <b>Part 1, Part C of the Rules</b>, such anchor may not be dealt with as a high holding power anchor), is to be as follows in addition to the requirements specified in 1.2 through 1.5 of this chapter.</p> <p>(1) Application for approval Manufacturers who apply for the approval of the manufacturing processes of anchors are to submit the appropriate application form (<b>Form 2-1</b>) filled in with required data and information to the Society (branch office concerned)</p> <p>((2) to (4) are omitted)</p> <p>(5) Submission of test reports</p>	<p><u>of the</u> “Certificate of Approval” and the documents specified in 1.2.2 are to be submitted together with the appropriate application form (<b>Form 2-1</b>). However, the data to be submitted may be limited to reference data on the changes.</p> <p>2 In the case of application for renewal of approval as specified in -1, data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been performed since the last “Certificate of Approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p> <p><b>1.6 Approval of Manufacturing Process of High Holding Power Anchors</b></p> <p><b>1.6.1 High Holding Power Anchors</b></p> <p>The approval procedure for manufacturing of high holding power anchor (the anchor specified in 2.1.4-2, <b>Part L of the Rules</b>, having the holding power two times or more of that of ordinary anchor, and if it is used without subjected to the reduction as specified in 14.3.1.2-6, <b>Part 1, Part C of the Rules</b>, such anchor may not be dealt with as a high holding power anchor), is to be as follows in addition to the requirements specified in 1.2 through 1.5 of this chapter.</p> <p>(1) Application for approval Manufacturers who apply for the approval of the manufacturing processes of anchors are to submit <u>a copy of</u> the appropriate application form (<b>Form 2-1</b>) filled in with required data and information to the Society (branch office concerned)</p> <p>((2) to (4) are omitted)</p> <p>(5) Submission of test reports</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>The manufacturer, on completion of the tests, is to prepare test records, covering, at least, the following items in addition to those given in 1.4.2, obtain the signature of the attended surveyor of the Society, and to submit them to the Society.            ((a) to (e) are omitted)</p> <p><b>1.8 Approval of Manufacturing Process of Anchors Used for Positioning Systems</b></p> <p><b>1.8.2 Approval Application Forms</b>            1 Manufacturers who apply for the approval of the manufacturing process of anchor are to submit the appropriate application form (Form 2-1) filled in with the required data and information to the Society (branch office concerned).</p> <p><b>1.8.3 Documents to be Submitted</b>            Each of the documents listed in below are to be submitted together with the approval application forms specified in 1.8.2.            ((1) to (12) are omitted)</p>	<p>The manufacturer, on completion of the tests, is to prepare test records, <u>in triplicate</u>, covering, at least, the following items in addition to those given in 1.4.2, obtain the signature of the attended surveyor of the Society, and to submit them to the Society.            ((a) to (e) are omitted)</p> <p><b>1.8 Approval of Manufacturing Process of Anchors Used for Positioning Systems</b></p> <p><b>1.8.2 Approval Application Forms</b>            1 Manufacturers who apply for the approval of the manufacturing process of anchor are to submit <u>a copy of</u> the appropriate application form (Form 2-1) filled in with the required data and information to the Society (branch office concerned).</p> <p><b>1.8.3 Documents to be Submitted</b>  <u>Three copies</u> each of the documents listed in below are to be submitted together with the approval application forms specified in 1.8.2.            ((1) to (12) are omitted)</p>	<p>Terminology alignment            To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p style="text-align: center;"><b>Chapter 1A APPROVAL OF ANCHORS INTENDED FOR USE ON VESSELS OR FLOATING OFFSHORE FACILITIES FIXED OR POSITIONED AT SPECIFIC SEA AREAS FOR LONG PERIODS OF TIME</b></p> <p><b>1A.2 Approval Application</b></p> <p><b>1A.2.1 Approval Application Form</b> Manufacturers who apply for the approval of anchor are to submit the appropriate application form (<b>Form 2-1A</b>) filled in with the required data and information to the Society (branch office concerned).</p> <p><b>1A.2.2 Documents to be Submitted</b> Each of the documents given in below are to be submitted together with the appropriate application form specified in 1A.2.1. (1) to (4) are omitted)</p> <p><b>Chapter 2 APPROVAL OF MANUFACTURING PROCESS OF CHAINS</b></p> <p><b>2.2 Application Procedures</b></p> <p><b>2.2.1 Application Procedures and Application Form</b> The approval application procedures are to be in</p>	<p style="text-align: center;"><b>Chapter 1A APPROVAL OF ANCHORS INTENDED FOR USE ON VESSELS OR FLOATING OFFSHORE FACILITIES FIXED OR POSITIONED AT SPECIFIC SEA AREAS FOR LONG PERIODS OF TIME</b></p> <p><b>1A.2 Approval Application</b></p> <p><b>1A.2.1 Approval Application Form</b> Manufacturers who apply for the approval of anchor are to submit <u>a copy of</u> the appropriate application form (<b>Form 2-1A</b>) filled in with the required data and information to the Society (branch office concerned).</p> <p><b>1A.2.2 Documents to be Submitted</b> <u>Three copies</u> each of the documents given in below are to be submitted together with the appropriate application form specified in 1A.2.1. (1) to (4) are omitted)</p> <p><b>Chapter 2 APPROVAL OF MANUFACTURING PROCESS OF CHAINS</b></p> <p><b>2.2 Application Procedures</b></p> <p><b>2.2.1 Application Procedures and Application Form</b> The approval application procedures are to be in</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>accordance with the following requirements:</p> <ol style="list-style-type: none"> <li>(1) The manufacturer who intends to newly manufacture chains is to submit the appropriate application form (<b>Form 2-2A</b>) filled with the information on the type of chains accompanied by the reference data, each in triplicate, stated in 2.2.2 to the Society.</li> <li>(2) The Society, upon examining the application for approval and the attached reference data stated in the above, is to give approval of the test procedure for approval and return them to the applicant.</li> </ol> <p><b>2.4 Approval Test</b></p> <p><b>2.4.1 Approval Test</b></p> <p><b>1</b> The approval test is to be carried out on each type of chain and material grade which under application for each manufacturing factory. The contents of the approval test are to be as indicated in <b>Table 3.2-1</b> and the test is to be carried out in the presence of the Surveyor of the Society unless otherwise specified.</p> <p>Table 3.2-1 Approval Test Items and Acceptance Criteria for Chains (Table is omitted)</p> <p>Table 3.2-2 Impact Test (Table is omitted)</p> <p>Table 3.2-3 Standard Value of <i>CTOD</i> test (Table is omitted)</p>	<p>accordance with the following requirements:</p> <ol style="list-style-type: none"> <li>(1) The manufacturer who intends to newly manufacture chains is to submit <u>a single copy of</u> the appropriate application form (<b>Form 2-2A</b>) filled with the information on the type of chains accompanied by the reference data, each in triplicate, stated in 2.2.2 to the Society.</li> <li>(2) The Society, upon examining the application for approval and the attached reference data stated in the above, is to give approval of the test procedure for approval and return them to the applicant.</li> </ol> <p><b>2.4 Approval Test</b></p> <p><b>2.4.1 Approval Test</b></p> <p><b>1</b> The approval test is to be carried out on each type of chain and material grade which under application for each manufacturing factory. The contents of the approval test are to be as indicated in <b>Table 2.2-1</b> and the test is to be carried out in the presence of the Surveyor of the Society unless otherwise specified.</p> <p>Table 2.2-1 Approval Test Items and Acceptance Criteria for Chains (Table is omitted)</p> <p>Table 2.2-2 Impact Test (Table is omitted)</p> <p>Table 2.2-3 Standard Value of <i>CTOD</i> test (Table is omitted)</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p>

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<p><b>2.6 Approval</b></p> <p><b>2.6.3 Renewal of Approval and Changes in the Approved Content</b></p> <p>1 In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 2.6.1, the applicant is to apply for renewal of approval in accordance with the requirements of 2.2. In such cases, <u>a copy of the “Certificate of Approval”</u> and the documents specified in 2.2.2 are to be submitted together with the appropriate application form (Form 2-2A). However, the data to be submitted may be limited to reference data on the changes.</p> <p>2 In the case of application for renewal of approval as specified in -1, <u>three sets of data</u> are to be submitted. These data sets are to include an accurate record of all manufacturing that has been preformed since the last “Certificate of Approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p> <p><b>Chapter 3 APPROVAL OF MANUFACTURING PROCESS OF CHAIN ACCESSORIES</b></p> <p><b>3.2 Approval Application Procedures</b></p> <p><b>3.2.1 Approval Application Procedures</b></p> <p>Manufacturers are to submit the appropriate application form (Form 2-2B) and are to follow the</p>	<p><b>2.6 Approval</b></p> <p><b>2.6.3 Renewal of Approval and Changes in the Approved Content</b></p> <p>1 In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 2.6.1, the applicant is to apply for renewal of approval in accordance with the requirements of 2.2. In such cases, the “Certificate of Approval” and the documents specified in 2.2.2 are to be submitted together with the appropriate application form (Form 2-2A). However, the data to be submitted may be limited to reference data on the changes.</p> <p>2 In the case of application for renewal of approval as specified in -1, data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been preformed since the last “Certificate of Approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p> <p><b>Chapter 3 APPROVAL OF MANUFACTURING PROCESS OF CHAIN ACCESSORIES</b></p> <p><b>3.2 Approval Application Procedures</b></p> <p><b>3.2.1 Approval Application Procedures</b></p> <p>Manufacturers are to submit <u>a copy of</u> the appropriate application form (Form 2-2B) and are to follow the</p>	<p>reorganization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>application process specified in the provisions of 2.2.1.</p> <p><b>3.4 Approval Test</b></p> <p><b>3.4.1 Approval Test</b></p> <p>1 The approval test is to be carried out on each item of chain accessories under application for each manufacturing factory. The details of approval test are to be as indicated in <b>Table 3.3-1</b>, and the test is to be carried out in the presence of the Surveyor of the Society unless otherwise specified.</p> <p>Table 3.3-1 Approval Test Items and Acceptance Criteria for Accessories (Table is omitted)</p> <p>Table 3.3-2 Impact Test (Table is omitted)</p> <p>Table 3.3-3 Standard Value of <i>CTOD</i> test (Table is omitted)</p> <p><b>3.5 Submission of Test Reports</b></p> <p>The manufacturer, after completion of the approval test, is to prepare test reports including those covering the manufacturing process of test chain accessories, all endorsed by the Surveyor of the Society. These reports are to be submitted to the Society.</p>	<p>application process specified in the provisions of 2.2.1.</p> <p><b>3.4 Approval Test</b></p> <p><b>3.4.1 Approval Test</b></p> <p>1 The approval test is to be carried out on each item of chain accessories under application for each manufacturing factory. The details of approval test are to be as indicated in <b>Table 2.3-1</b>, and the test is to be carried out in the presence of the Surveyor of the Society unless otherwise specified.</p> <p>Table 2.3-1 Approval Test Items and Acceptance Criteria for Accessories (Table is omitted)</p> <p>Table 2.3-2 Impact Test (Table is omitted)</p> <p>Table 2.3-3 Standard Value of <i>CTOD</i> test (Table is omitted)</p> <p><b>3.5 Submission of Test Reports</b></p> <p>The manufacturer, after completion of the approval test, is to prepare test reports including those covering the manufacturing process of test chain accessories, <u>in triplicate</u>, all endorsed by the Surveyor of the Society. These reports are to be submitted to the Society.</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p>



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Amended	Original	Remarks
<p><b>Chapter 4 TYPE APPROVAL OF RAW TEXTILES FOR SYNTHETIC FIBRE ROPES</b></p> <p><b>4.2 Application Procedures</b></p> <p><b>4.2.1 Application Procedures</b>                      The manufacturer of raw textiles who intends to obtain approval of the manufacturing process of raw textiles is to submit his application for approval the appropriate application form (<b>Form 2-3</b>) filled with the following reference data, stated in (1) to (4) below to the Society.                      In cases where reference data compatible with those to be newly submitted were previously submitted to the Society, submission of such reference data may be omitted by giving notification to the Society to that extent.</p> <p>((1) to (4) are omitted)</p> <p><b>4.4 Approval Test</b></p> <p><b>4.4.2 Test Procedures</b>                      The procedures of the tests specified in 4.4.1-1 above are to be in accordance with the following requirements:</p> <p>(1) Linear strength and elongation tests                      The number of test specimens used in the test is to be 10, and average value of the measured values of linear strength and elongation on these test specimens are to be obtained. The average value of linear strength and elongation values thus obtained are to satisfy those</p>	<p><b>Chapter 4 APPROVAL OF RAW TEXTILES FOR SYNTHETIC FIBRE ROPES</b></p> <p><b>4.2 Application Procedures</b></p> <p><b>4.2.1 Application Procedures</b>                      The manufacturer of raw textiles who intends to obtain approval of the manufacturing process of raw textiles is to submit his application for approval <u>a single copy</u> of the appropriate application form (<b>Form 2-3</b>) filled with the following reference data <u>each in triplicate</u>, stated in (1) to (4) below to the Society.                      In cases where reference data compatible with those to be newly submitted were previously submitted to the Society, submission of such reference data may be omitted by giving notification to the Society to that extent.</p> <p>((1) to (4) are omitted)</p> <p><b>4.4 Approval Test</b></p> <p><b>4.4.2 Test Procedures</b>                      The procedures of the tests specified in 4.4.1-1 above are to be in accordance with the following requirements:</p> <p>(1) Linear strength and elongation tests                      The number of test specimens used in the test is to be 10, and average value of the measured values of linear strength and elongation on these test specimens are to be obtained. The average value of linear strength and elongation values thus obtained are to satisfy those</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Figure and table numbers have been changed due to reorganization</p>

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Amended	Original	Remarks
<p>given in <b>Table 3.4-1</b>.</p> <p>(2) Chemical resistance test The chemical resistance tests are to comprise alkali-resistance test and acid-resistance test. In alkali-resistance test, the test specimen is to be soaked in 10% caustic soda solution at a temperature 20±2°C for a period of 24 <i>hours</i>, whereas in acid-resistance test, the test specimen is to be soaked in 10% acid solution at a temperature 20±2°C for a period of 24 <i>hours</i>, and then rinsed with water, and the linear strength is to be measured by the same method as in (1) above. The number of test specimens is to be 10 for each chemical solution. The linear strength is to be converted into the value of residual strength ratio of chemical resistance by the following equation. These average values are to satisfy the values given in <b>Table 3.4-1</b>.</p> <p style="text-align: center;">Residual chemical resistance strength ratio  <math display="block">= \frac{\text{Linear strength (g) after chemical processing}}{\text{Linear strength (g) before chemical processing}} \times 100(\%)</math></p> <p><b>4.4.3 Submission of Test Reports</b> The manufacturer is to prepare test reports after completion of the tests, obtain the surveyor's signature thereon, and is to submit them, to the Society.</p> <p>Table 3.4-1 Standard Tensile Strength Values for Raw Textiles (Table is omitted)</p>	<p>given in <b>Table 2.4-1</b>.</p> <p>(2) Chemical resistance test The chemical resistance tests are to comprise alkali-resistance test and acid-resistance test. In alkali-resistance test, the test specimen is to be soaked in 10% caustic soda solution at a temperature 20±2°C for a period of 24 <i>hours</i>, whereas in acid-resistance test, the test specimen is to be soaked in 10% acid solution at a temperature 20±2°C for a period of 24 <i>hours</i>, and then rinsed with water, and the linear strength is to be measured by the same method as in (1) above. The number of test specimens is to be 10 for each chemical solution. The linear strength is to be converted into the value of residual strength ratio of chemical resistance by the following equation. These average values are to satisfy the values given in <b>Table 2.4-1</b>.</p> <p style="text-align: center;">Residual chemical resistance strength ratio  <math display="block">= \frac{\text{Linear strength (g) after chemical processing}}{\text{Linear strength (g) before chemical processing}} \times 100(\%)</math></p> <p><b>4.4.3 Submission of Test Reports</b> The manufacturer is to prepare test reports after completion of the tests, obtain the surveyor's signature thereon, and is to submit them, <u>in triplicate</u>, to the Society.</p> <p>Table 2.4-1 Standard Tensile Strength Values for Raw Textiles (Table is omitted)</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>4.5 Approval</b></p> <p><b>4.5.1 Notification of Approval</b></p> <p>The Society will grant approval to the raw textiles for synthetic fibre ropes, which have been deemed appropriate on the basis of Surveyor reports and documents submitted in accordance with the requirements in 4.2 through 4.4.</p> <p>In this case, a “<u>Certificate</u> of Approval” that includes the approval number, approval date, type of raw textiles etc. will be issued. And, in accordance with the requirements in 4.2.1 and 4.4.3, the Society will stamp the submitted data it deems necessary with a seal of approval and return such date to the applicant.</p> <p><b>4.5.3 Renewal of Approval and Changes in the Approved Content</b></p> <p><b>1</b> In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 4.5.1, the applicant is to apply for renewal of approval in accordance with the requirements of 4.2. In such cases, “Certificate of Approval” and the documents specified in 4.2.1 are to be submitted together with the appropriate application form (Form 2-3). However, the data to be submitted may be limited to reference data on the changes.</p> <p><b>2</b> In the case of application for renewal of approval as specified in -1, data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been performed since the last “Certificate of Approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p>	<p><b>4.5 Approval</b></p> <p><b>4.5.1 Notification of Approval</b></p> <p>The Society will grant approval to the raw textiles for synthetic fibre ropes, which have been deemed appropriate on the basis of Surveyor reports and documents submitted in accordance with the requirements in 4.2 through 4.4.</p> <p>In this case, a “<u>Notice</u> of Approval” that includes the approval number, approval date, type of raw textiles etc. will be issued. And, in accordance with the requirements in 4.2.1 and 4.4.3, the Society will stamp the submitted data it deems necessary with a seal of approval and return such date to the applicant.</p> <p><b>4.5.3 Renewal of Approval and Changes in the Approved Content</b></p> <p><b>1</b> In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 4.5.1, the applicant is to apply for renewal of approval in accordance with the requirements of 4.2. In such cases, <u>a copy of</u> “Certificate of Approval” and the documents specified in 4.2.1 are to be submitted together with the appropriate application form (Form 2-3). However, the data to be submitted may be limited to reference data on the changes.</p> <p><b>2</b> In the case of application for renewal of approval as specified in -1, <u>three sets of</u> data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been performed since the last “Certificate of Approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>6 Manufacturers whose renewal is approved are to return the old “<u>Certificate of Approval</u>” to the Society as soon as possible after receiving the new certificate and the term of validity of the old certificate expires.</p> <p>7 Manufacturers whose request for changes in approved content is accepted are to return the old “<u>Certificate of Approval</u>” to the Society as soon as possible after receiving the new certificate.</p> <p><b>Chapter 5 APPROVAL OF MANUFACTURING PROCESS OF SYNTHETIC FIBRE ROPES</b></p> <p><b>5.2 Application Procedures</b></p> <p><b>5.2.1 Application Procedures</b> Manufacturer who applies for the approval of manufacturing process of synthetic fibre ropes is to submit for approval <u>a single copy of</u> the appropriate application form (<b>Form 2-4</b>) with plans for the approval test as well as the following items attached, <u>each in triplicate</u>, to the Society:</p> <p>((1) to (4) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.1 Test Items</b> 3 The test procedures for -1 above are to be in accordance with the following requirements:</p>	<p>6 Manufacturers whose renewal is approved are to return the old “<u>Type Approval Certificate</u>” to the Society as soon as possible after receiving the new certificate and the term of validity of the old certificate expires.</p> <p>7 Manufacturers whose request for changes in approved content is accepted are to return the old “<u>Type Approval Certificate</u>” to the Society as soon as possible after receiving the new certificate.</p> <p><b>Chapter 5 APPROVAL OF MANUFACTURING PROCESS OF SYNTHETIC FIBRE ROPES</b></p> <p><b>5.2 Application Procedures</b></p> <p><b>5.2.1 Application Procedures</b> Manufacturer who applies for the approval of manufacturing process of synthetic fibre ropes is to submit for approval the appropriate application form (<b>Form 2-4</b>) with plans for the approval test as well as the following items attached, to the Society:</p> <p>((1) to (4) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.1 Test Items</b> 3 The test procedures for -1 above are to be in accordance with the following requirements:</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>(1) Tensile tests in wet and dry conditions Tensile tests on three each test specimens are to, in principle, be carried out for each of the test conditions given in <b>Table 3.5-1</b>, and breaking strength and elongation are to be measured. Respective breaking loads are to satisfy the loads guaranteed by manufacturers. Values with respect to elongation are to be for reference only. The gauge length of the test specimen to be 30 times or more the rope diameter, however it needs not to exceed 1 <i>meter</i>.</p> <p>(2) Abrasion resistance tensile test A total of six test specimens are to be taken from ropes with diameter from 12 to 24 <i>mm</i>. Three of them are to be set in the abrasion resistance testing machine with the following particulars, and are to be subjected to repeated strokes for 500 times. Stroke: 200-300 <i>mm</i> Abrasion speed: 50 <i>strokes/min</i> Abrasion surface: Grinder with particle size No.120 Tensile load: 98<i>N</i> Those three tested specimens together with other three non-tested specimens are to be placed in a thermostatic oven kept at a temperature of 20°C and a humidity of 65%, and left there for one <i>hour</i>. They are then to be taken out, and be subjected to tensile tests for measuring the tensile strength and elongation, whereby the strength values of the rope before and after abrasion are to be compared. The ratio of the residual abrasion strength to the strength without abrasion (the residual abrasion strength ratio) is to satisfy the values given in <b>Table 3.5-2</b>.</p>	<p>(1) Tensile tests in wet and dry conditions Tensile tests on three each test specimens are to, in principle, be carried out for each of the test conditions given in <b>Table 2.5-1</b>, and breaking strength and elongation are to be measured. Respective breaking loads are to satisfy the loads guaranteed by manufacturers. Values with respect to elongation are to be for reference only. The gauge length of the test specimen to be 30 times or more the rope diameter, however it needs not to exceed 1 <i>meter</i>.</p> <p>(2) Abrasion resistance tensile test A total of six test specimens are to be taken from ropes with diameter from 12 to 24 <i>mm</i>. Three of them are to be set in the abrasion resistance testing machine with the following particulars, and are to be subjected to repeated strokes for 500 times. Stroke: 200-300 <i>mm</i> Abrasion speed: 50 <i>strokes/min</i> Abrasion surface: Grinder with particle size No.120 Tensile load: 98<i>N</i> Those three tested specimens together with other three non-tested specimens are to be placed in a thermostatic oven kept at a temperature of 20°C and a humidity of 65%, and left there for one <i>hour</i>. They are then to be taken out, and be subjected to tensile tests for measuring the tensile strength and elongation, whereby the strength values of the rope before and after abrasion are to be compared. The ratio of the residual abrasion strength to the strength without abrasion (the residual abrasion strength ratio) is to satisfy the values given in <b>Table 2.5-2</b>.</p>	<p>Figure and table numbers have been changed due to reorganization</p>

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Amended	Original	Remarks
<p>For other test conditions than those shown above, they are to considered appropriate by the Society.</p> <p>(3) <b>Weather resistance test</b>  A total of six test specimens are to be taken from ropes with diameter from 12 to 24 <i>mm</i>. Three of these test specimens are to be placed in the weather resistance test machine controlled to the following conditions where they are to be left for 200 <i>hours</i> or more.  Weathering light: Sunshine carbon arc light or ultraviolet carbon arc light  Temperature of black panel: <math>63 \pm 1^{\circ}\text{C}</math>  Period of water spray: 18 <i>min/2hours</i>  The six test specimens including those three non-tested specimens are then to be placed in a thermostatic oven kept at a temperature of <math>20^{\circ}\text{C}</math> and a humidity of 65%, and left there for one <i>hour</i>. These test specimens are to be taken out, tensile strength and elongation are to be measured, and the strength after the weathering resistance test and that of the test specimens not subjected to such weathering resistance test are to be compared.  The ratio of the former to the latter (the residual weathering strength ratio) is to satisfy the values given in <b>Table 3.5-2</b>.</p> <p style="text-align: center;">Table 3.5-1 Test Conditions  (Table is omitted)</p> <p><b>5.4.2 Submission of Test Report</b>  The manufacturer is to prepare test report after completion of the tests, receive signature of the surveyor who</p>	<p>For other test conditions than those shown above, they are to considered appropriate by the Society.</p> <p>(3) <b>Weather resistance test</b>  A total of six test specimens are to be taken from ropes with diameter from 12 to 24 <i>mm</i>. Three of these test specimens are to be placed in the weather resistance test machine controlled to the following conditions where they are to be left for 200 <i>hours</i> or more.  Weathering light: Sunshine carbon arc light or ultraviolet carbon arc light  Temperature of black panel: <math>63 \pm 1^{\circ}\text{C}</math>  Period of water spray: 18 <i>min/2hours</i>  The six test specimens including those three non-tested specimens are then to be placed in a thermostatic oven kept at a temperature of <math>20^{\circ}\text{C}</math> and a humidity of 65%, and left there for one <i>hour</i>. These test specimens are to be taken out, tensile strength and elongation are to be measured, and the strength after the weathering resistance test and that of the test specimens not subjected to such weathering resistance test are to be compared.  The ratio of the former to the latter (the residual weathering strength ratio) is to satisfy the values given in <b>Table 2.5-2</b>.</p> <p style="text-align: center;">Table 2.5-1 Test Conditions  (Table is omitted)</p> <p><b>5.4.2 Submission of Test Report</b>  The manufacturer is to prepare test report after completion of the tests, receive signature of the surveyor who</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies</p>

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Amended	Original	Remarks
<p>witnessed the tests, and is to submit them, to the Society.</p> <p><b>5.5 Approval</b></p> <p><b>5.5.3 Renewal of Approval</b></p> <p><b>1</b> In the case of application for renewal of approval, the applicant is to submit the appropriate application form (<b>Form 2-4</b>) along with the “Certificate of Approval” and a list of the products for which approval is desired to be continued or revoked. In such cases, the aforementioned list is to include information such as the product name, manufacturer and kind of filaments used, whether an inspection has been carried out by the Society during the previous <i>5 years</i>, the production output during the previous year, whether the approval is to be continued not, etc. Approval is to be revoked, however, in cases where the filaments used in the rope are no longer being manufactured.</p> <p><b>2</b> (Omitted)</p> <p><b>3</b> In addition to the factory inspection specified in -2, the breaking test specified in <b>5.1.7, Part L of the Rules for the Survey and Construction of Steel Ships</b> is to be carried out according to the categories specified in <b>Table 3.5-3</b>. One specimen each is to be taken from three different coils of rope which are larger than <i>40 mm</i> or the largest size manufactured in diameter for each category. Each specimen is to satisfy the provisions in <b>5.1.7(5), Part L of the Rules for the Survey and Construction of Steel Ships</b>. However, in cases where product inspections (appearance and dimension) for each category have been carried out by the Society during the previous <i>5 years</i>, breaking tests for the products in this</p>	<p>witnessed the tests, and is to submit them, <u>in triplicate</u>, to the Society.</p> <p><b>5.5 Approval</b></p> <p><b>5.5.3 Renewal of Approval</b></p> <p><b>1</b> In the case of application for renewal of approval, the applicant is to submit the appropriate application form (<b>Form 2-4</b>) along with <u>a copy of</u> the “Certificate of Approval” and <u>three copies of</u> a list of the products for which approval is desired to be continued or revoked. In such cases, the aforementioned list is to include information such as the product name, manufacturer and kind of filaments used, whether an inspection has been carried out by the Society during the previous <i>5 years</i>, the production output during the previous year, whether the approval is to be continued not, etc. Approval is to be revoked, however, in cases where the filaments used in the rope are no longer being manufactured.</p> <p><b>2</b> (Omitted)</p> <p><b>3</b> In addition to the factory inspection specified in -2, the breaking test specified in <b>5.1.7, Part L of the Rules for the Survey and Construction of Steel Ships</b> is to be carried out according to the categories specified in <b>Table 2.5-3</b>. One specimen each is to be taken from three different coils of rope which are larger than <i>40 mm</i> or the largest size manufactured in diameter for each category. Each specimen is to satisfy the provisions in <b>5.1.7(5), Part L of the Rules for the Survey and Construction of Steel Ships</b>. However, in cases where product inspections (appearance and dimension) for each category have been carried out by the Society during the previous <i>5 years</i>, breaking tests for the products in this</p>	<p>due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Figure and table numbers have been changed due to reorganization</p>

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<p>category may be dispensed with.</p> <p><b>5.5.4 Changes in Approved Content</b></p> <p>1 In cases where changes have been made to the approved content of the “Certificate of Approval” or the “Particulars of Approval Conditions” specified in 5.5.1-1, the applicant is to apply for approval in accordance with the requirements of 5.2. In such cases, the “Certificate of Approval” and the documents specified in 5.2.1 are to be submitted together with the appropriate application form (Form 2-4). However, the data to be submitted may be limited to that related to the changes.</p> <p>Table 3.5-2 Residual Strength Ratio of Synthetic Fibre Ropes (Table is omitted)</p> <p>Table 3.5-3 Division of Synthetic Ropes (Table is omitted)</p> <p style="text-align: center;"><b>Chapter 6    <u>TYPE APPROVAL OF</u> EMERGENCY TOWING ARRANGEMENTS</b></p> <p><b>6.1 General</b></p> <p><b>6.1.1 Scope</b></p> <p>1 This Chapter applies to the <u>type approval</u> of emergency towing arrangements (Hereinafter referred to as “ETA” in this Chapter.) and examinations, tests and inspection of products of ETA based upon the requirements specified in</p>	<p>category may be dispensed with.</p> <p><b>5.5.4 Changes in Approved Content</b></p> <p>1 In cases where changes have been made to the approved content of the “Certificate of Approval” or the “Particulars of Approval Conditions” specified in 5.5.1-1, the applicant is to apply for approval in accordance with the requirements of 5.2. In such cases, <u>a copy of</u> the “Certificate of Approval” and the documents specified in 5.2.1 are to be submitted together with the appropriate application form (Form 2-4). However, the data to be submitted may be limited to that related to the changes.</p> <p>Table 2.5-2 Residual Strength Ratio of Synthetic Fibre Ropes (Table is omitted)</p> <p>Table 2.5-3 Division of Synthetic Ropes (Table is omitted)</p> <p style="text-align: center;"><b>Chapter 6    <u>EMERGENCY TOWING</u> ARRANGEMENTS</b></p> <p><b>6.1 General</b></p> <p><b>6.1.1 Scope</b></p> <p>1 This Chapter applies to the <u>approval of prototype</u> of emergency towing arrangements (Hereinafter referred to as “ETA” in this Chapter.) and examinations, tests and inspection of products of ETA based upon the requirements specified in</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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<p><b>14.5.2.4, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships.</b> Where tests for <u>type approval</u> of ETA mean the examinations and tests in order to confirm that the prototype of ETA made of components listed in <b>14.5.2.3, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships</b> complies with the requirements specified in <b>14.5.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships</b>, and production tests of ETA mean the examinations and tests to be carried out against the products of each component of ETA which has obtained the <u>type approval</u>.</p> <p><b>2</b> Test for <u>type approval</u> of ETA and production tests of each component of ETA are to be carried out separately.</p> <p><b>6.2 Application Procedures</b></p> <p><b>1</b> Manufacturer who intends to obtain <u>type approval</u> of ETA is to submit the appropriate application form (<b>Form 2-5</b>) accompanied by the following data. ((1) to (14) are omitted)</p> <p><b>6.5 Submission of Test Records</b></p> <p><b>6.5.1 General</b></p> <p>The manufacturer is to make the test records after approval tests described in <b>6.4</b> have been completed and is to submit the tests record, endorsed by the attended surveyor to the Society.</p>	<p><b>14.5.2.4, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships.</b> Where tests for <u>approval of prototype</u> of ETA mean the examinations and tests in order to confirm that the prototype of ETA made of components listed in <b>14.5.2.3, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships</b> complies with the requirements specified in <b>14.5.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships</b>, and production tests of ETA mean the examinations and tests to be carried out against the products of each component of ETA which has obtained the <u>approval of the prototype</u>.</p> <p><b>2</b> Test for <u>approval of prototype</u> of ETA and production tests of each component of ETA are to be carried out separately.</p> <p><b>6.2 Application Procedures</b></p> <p><b>1</b> Manufacturer who intends to obtain <u>approval of prototype</u> of ETA is to submit the appropriate application form (<b>Form 2-5</b>) accompanied by <u>three sets of</u> the following data. ((1) to (14) are omitted)</p> <p><b>6.5 Submission of Test Records</b></p> <p><b>6.5.1 General</b></p> <p>The manufacturer is to make the test records after approval tests described in <b>6.4</b> have been completed and is to submit the tests record <u>in duplicate</u>, endorsed by the attended surveyor to the Society.</p>	<p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>6.6 Approval</b></p> <p><b>6.6.1 Notification of Approval</b></p> <p>The Society upon finding that the results of confirmation survey of manufacturing factory and the record of prototype tests are all satisfactory, it to <u>type approve</u> of ETA, and send a notice of approval describing the following contents to the applicant and inform the branch office within jurisdiction of address of the applicant to that effect.</p> <p>((1) to (3) are omitted)</p> <p><b>6.6.3 Renewal of Approval and Changes in the Approved Content</b></p> <p><b>1</b> In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 6.6.1, the applicant is to apply for renewal of approval in accordance with the requirements of 6.2. In such cases, the “Certificate of Approval” and the documents specified in 6.2.1 are to be submitted together with the appropriate application form (<b>Form 2-5</b>). However, the data to be submitted may be limited to reference data on the changes.</p> <p><b>2</b> In the case of application for renewal of approval specified in -1, data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been performed since the last “Certificate of approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p>	<p><b>6.6 Approval</b></p> <p><b>6.6.1 Notification of Approval</b></p> <p>The Society upon finding that the results of confirmation survey of manufacturing factory and the record of prototype tests are all satisfactory, it to <u>approve the prototype</u> of ETA, and send a notice of approval describing the following contents to the applicant and inform the branch office within jurisdiction of address of the applicant to that effect.</p> <p>((1) to (3) are omitted)</p> <p><b>6.6.3 Renewal of Approval and Changes in the Approved Content</b></p> <p><b>1</b> In cases where changes have been made to the approved content of the “Certificate of Approval” specified in 6.6.1, the applicant is to apply for renewal of approval in accordance with the requirements of 6.2. In such cases, <u>a copy</u> of the “Certificate of Approval” and the documents specified in 6.2.1 are to be submitted together with the appropriate application form (<b>Form 2-5</b>). However, the data to be submitted may be limited to reference data on the changes.</p> <p><b>2</b> In the case of application for renewal of approval specified in -1, <u>three sets of</u> data are to be submitted. These data sets are to include an accurate record of all manufacturing that has been performed since the last “Certificate of approval” was issued. In such cases, the Society will conduct a factory inspection if needed.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p align="center"><b>Chapter 7    <u>TYPE APPROVAL OF LIFE-SAVING APPLIANCES</u></b></p> <p><b>7.2 Type Approval</b></p> <p><b>7.2.1 Procedures for Application</b>  <b>1</b> An applicant for type approval is to submit the appropriate application form (Form 2-6) and the following drawings and documents for examination:            ((1) to (5) are omitted)  <b>2</b> Irrespective of the above -1, the applicant may submit the appropriate application form (Form 2-8) only, instead of submitting the relevant drawings and documents, if they are identical to drawings and documents already submitted to the Society in relation to appliances or equipment previously type approved by the Society.</p> <p><b>7.2.3 Prototype Tests for Type Approval</b>  <b>4</b> After completion of the prototype test, the applicant is to compile the test results and submit the test records endorsed by the attending Surveyor to the Society.</p> <p><b>7.2.5 Renewal of Validity of Certificate of Type Approval</b>  <b>1</b> When a firm that has been issued with a Certificate of Type Approval for a given appliance or item of equipment wishes to renew the Certificate, the firm is to submit the appropriate application form (Form 2-6) with a list of the appliances or equipment manufactured in the past to the Society within the validity of the Certificate.</p>	<p align="center"><b>Chapter 7    LIFE-SAVING APPLIANCES</b></p> <p><b>7.2 Type Approval</b></p> <p><b>7.2.1 Procedures for Application</b>  <b>1</b> An applicant for type approval is to submit the appropriate application form (Form 2-6) and the following drawings and documents for examination, <u>each in triplicate</u>:            ((1) to (5) are omitted)  <b>2</b> Irrespective of the above -1, the applicant may submit the appropriate application form (Form 2-8) only, <u>in triplicate</u>, instead of submitting the relevant drawings and documents, if they are identical to drawings and documents already submitted to the Society in relation to appliances or equipment previously type approved by the Society.</p> <p><b>7.2.3 Prototype Tests for Type Approval</b>  <b>4</b> After completion of the prototype test, the applicant is to compile the test results and submit the test records endorsed by the attending Surveyor <u>in triplicate</u> to the Society.</p> <p><b>7.2.5 Renewal of Validity of Certificate of Type Approval</b>  <b>1</b> When a firm that has been issued with a Certificate of Type Approval for a given appliance or item of equipment wishes to renew the Certificate, the firm is to submit the appropriate application form (Form 2-6) with a list of the appliances or equipment manufactured in the past <u>in triplicate</u> to the Society within the validity of the Certificate.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>7.5 Lifeboats</b></p> <p><b>7.5.2 Type Approval</b>  <b>1</b> Drawings and documents data to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following:  ((1) to (24) are omitted)</p> <p><b>7.6 Rescue Boats</b></p> <p><b>7.6.3 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and 7.5.2-1(1) to (15) and (18) to (24) and the following:  ((1) to (3) are omitted)</p> <p><b>7.7 Inflatable Liferrafts</b></p> <p><b>7.7.2 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following:  ((1) and (11) are omitted)</p>	<p><b>7.5 Lifeboats</b></p> <p><b>7.5.2 Type Approval</b>  <b>1</b> Drawings and documents data to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following, <u>each in triplicate</u>:  ((1) to (24) are omitted)</p> <p><b>7.6 Rescue Boats</b></p> <p><b>7.6.3 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and 7.5.2-1(1) to (15) and (18) to (24) and the following, <u>each in triplicate</u>:  ((1) to (3) are omitted)</p> <p><b>7.7 Inflatable Liferrafts</b></p> <p><b>7.7.2 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following, <u>each in triplicate</u>:  ((1) and (11) are omitted)</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>7.8 Launching Appliances for Lifeboats, Rescue Boats and Liferafts</b></p> <p><b>7.8.2 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are listed in 7.2.1-1(2) to (5) and the following:  ((1) to (7) are omitted)</p> <p><b>7.9 Engines for Lifeboats and Rescue Boats (including reduction and reversing gears)</b></p> <p><b>7.9.1 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are listed in 7.2.1-1(2) to (5) and the following:  ((1) to (11) are omitted)</p> <p><b>7.10 Release Mechanisms of Lifeboats or Rescue Boats Launched by Falls other than Free-fall Lifeboats</b></p> <p><b>7.10.1 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following:  ((1) to (5) are omitted)</p>	<p><b>7.8 Launching Appliances for Lifeboats, Rescue Boats and Liferafts</b></p> <p><b>7.8.2 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are listed in 7.2.1-1(2) to (5) and the following, <u>each in triplicate</u>:  ((1) to (7) are omitted)</p> <p><b>7.9 Engines for Lifeboats and Rescue Boats (including reduction and reversing gears)</b></p> <p><b>7.9.1 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are listed in 7.2.1-1(2) to (5) and the following, <u>each in triplicate</u>:  ((1) to (11) are omitted)</p> <p><b>7.10 Release Mechanisms of Lifeboats or Rescue Boats Launched by Falls other than Free-fall Lifeboats</b></p> <p><b>7.10.1 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following, <u>each in triplicate</u>:  ((1) to (5) are omitted)</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>7.11 Fall Preventer Devices Fitted with Lifeboats or Rescue Boats Launched by Falls other than Free-fall Lifeboats</b></p> <p><b>7.11.1 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following:  ((1) to (6) are omitted)</p> <p><b>Chapter 8 TYPE APPROVAL OF SEWAGE TREATMENT PLANT AND SEWAGE COMMUNITING AND DISINFECTING SYSTEM</b></p> <p><b>8.2 Application</b></p> <p><b>8.2.1 Application Form</b>  The manufacturer, who intends to obtain the <u>type approval</u>, is to submit the appropriate application form (Form 2-9) filled in with necessary data and information to the Society (Head Office).</p> <p><b>8.2.2 Documents</b>  <b>1</b> The documents listed (1) through (9) below, are to be submitted together with the application form specified in 8.2.1.  ((1) to (10) are omitted)</p>	<p><b>7.11 Fall Preventer Devices Fitted with Lifeboats or Rescue Boats Launched by Falls other than Free-fall Lifeboats</b></p> <p><b>7.11.1 Type Approval</b>  <b>1</b> Drawings and documents to be submitted  Drawings and documents to be submitted are specified in 7.2.1-1(2) to (5) and the following, <u>each in triplicate</u>:  ((1) to (6) are omitted)</p> <p><b>Chapter 8 SEWAGE TREATMENT PLANT AND SEWAGE COMMUNITING AND DISINFECTING SYSTEM</b></p> <p><b>8.2 Application</b></p> <p><b>8.2.1 Application Form</b>  The manufacturer, who intends to obtain the <u>approval of use</u>, is to submit the appropriate application form (Form 2-9) filled in with necessary data and information to the Society (Head Office).</p> <p><b>8.2.2 Documents</b>  <b>1</b> The documents listed (1) through (9) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 8.2.1.  ((1) to (10) are omitted)</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>8.4 Approval Tests for Sewage Treatment Plant</b></p> <p><b>8.4.4 Tilt and Vibration Test</b>                      2 Control and sensor components used for the plant are to be subject to the vibration test of which conditions are specified in <b>Table 3.8-1</b> and <b>Table 3.8-2</b>.</p> <p>Table 3.8-1 Resonance Test Condition                      (Table is omitted)</p> <p>Table 3.8-2 Endurance Test Condition                      (Table is omitted)</p> <p><b>8.5 Approval Tests for Sewage Comminuting and Disinfecting System</b></p> <p><b>8.5.1 Approval Tests for Sewage Comminuting and Disinfecting System</b>                      2 Vibration test                      It is to be confirmed that no abnormality is observed during the vibration test of which conditions are specified in <b>Table 3.8-1</b> and <b>Table 3.8-2</b>.</p> <p><b>8.6 Approval</b></p> <p><b>8.6.1 Test Records</b>                      The manufacturer is to prepare records of the approval test after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, to the</p>	<p><b>8.4 Approval Tests for Sewage Treatment Plant</b></p> <p><b>8.4.4 Tilt and Vibration Test</b>                      2 Control and sensor components used for the plant are to be subject to the vibration test of which conditions are specified in <b>Table 2.8-1</b> and <b>Table 2.8-2</b>.</p> <p>Table 2.8-1 Resonance Test Condition                      (Table is omitted)</p> <p>Table 2.8-2 Endurance Test Condition                      (Table is omitted)</p> <p><b>8.5 Approval Tests for Sewage Comminuting and Disinfecting System</b></p> <p><b>8.5.1 Approval Tests for Sewage Comminuting and Disinfecting System</b>                      2 Vibration test                      It is to be confirmed that no abnormality is observed during the vibration test of which conditions are specified in <b>Table 2.8-1</b> and <b>Table 2.8-2</b>.</p> <p><b>8.6 Approval</b></p> <p><b>8.6.1 Test Records</b>                      The manufacturer is to prepare records of the approval test after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, <u>in triplicate</u>,</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>Society.</p> <p style="text-align: center;"><b>Chapter 9    <u>TYPE APPROVAL OF FIBER REINFORCED PLASTIC (FRP)</u></b></p> <p><b>9.1 General</b></p> <p><b>9.1.1 Scope</b> In accordance with the requirements in Annex 3.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships, the requirements in this Chapter apply to tests and inspection for the <u>type approval</u> of fiber reinforced plastic (hereinafter referred to as “FRP”).</p> <p><b>9.2 Application Procedure</b></p> <p><b>9.2.1 Approval Application</b> Manufacturers who wish to obtain <u>type approval</u> of FRP products are to submit the appropriate application form (Form 2-10) and, as shown in 9.2.3, any drawings and documents as well as the test plan to either the Society’s main office or a branch office.</p> <p><b>9.5 Notice of Approval</b></p> <p><b>9.5.3 Renewal of Approval</b> 1 In case of application for renewal of approval, the</p>	<p>to the Society.</p> <p style="text-align: center;"><b>Chapter 9    <u>APPROVAL OF USE OF FIBER REINFORCED PLASTIC (FRP)</u></b></p> <p><b>9.1 General</b></p> <p><b>9.1.1 Scope</b> In accordance with the requirements in Annex 3.2, Part 1, Part C of the Rules for the Survey and Construction of Steel Ships, the requirements in this Chapter apply to tests and inspection for the <u>approval of use</u> of fiber reinforced plastic (hereinafter referred to as “FRP”).</p> <p><b>9.2 Application Procedure</b></p> <p><b>9.2.1 Approval Application</b> Manufacturers who wish to obtain <u>approval to use</u> FRP products are to submit the appropriate application form (Form 2-10) and, as shown in 9.2.3, <u>three copies</u> of any drawings and documents as well as <u>three copies</u> of the test plan to either the Society’s main office or a branch office.</p> <p><b>9.5 Notice of Approval</b></p> <p><b>9.5.3 Renewal of Approval</b> 1 In case of application for renewal of approval, the</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>



**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>applicant is to submit “Certificate of Approval” and data showing actual manufacturing records of the FRP within the specific period of time together with the appropriate application from (Form 2-10).</p> <p><b>9.5.4 Changes in Approval Content</b></p> <p><b>1</b> In case of changes to an approved FRP, the applicant is to submit the “Certificate of Approval” and the documents specified in 9.2.3 together with the appropriate application form (Form 2-10).</p> <p><b>Chapter 10 TYPE APPROVAL OF SHIPBOARD INCINERATOR</b></p> <p><b>10.2 Application Procedure</b></p> <p><b>10.2.3 Documents</b></p> <p><b>1</b> The data given in the following (1) through (7) are to be submitted together with the Application Form referred to in 10.2.1.            ((1) to (7) are omitted)</p> <p><b>10.5 Approval</b></p> <p><b>10.5.1 Test Records</b></p> <p>After completion of the approval test, the manufacturer is to produce records of approval test, and is to submit to the Society upon receiving confirmation by the</p>	<p>applicant is to submit <u>a copy of</u> “Certificate of Approval” and <u>three copies of</u> data showing actual manufacturing records of the FRP within the specific period of time together with the appropriate application from (Form 2-10).</p> <p><b>9.5.4 Changes in Approval Content</b></p> <p><b>1</b> In case of changes to an approved FRP, the applicant is to submit <u>a copy of</u> the “Certificate of Approval” and <u>three copies of</u> the documents specified in 9.2.3 together with the appropriate application form (Form 2-10).</p> <p><b>Chapter 10 SHIPBOARD INCINERATOR</b></p> <p><b>10.2 Application Procedure</b></p> <p><b>10.2.3 Documents</b></p> <p><b>1</b> <u>Three copies of</u> the data given in the following (1) through (7) are to be submitted together with the Application Form referred to in 10.2.1.            ((1) to (7) are omitted)</p> <p><b>10.5 Approval</b></p> <p><b>10.5.1 Test Records</b></p> <p>After completion of the approval test, the manufacturer is to produce records of approval test, and is to submit <u>three copies</u> to the Society upon receiving</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>Society’s Surveyor.</p> <p><b>Chapter 11    <u>TYPE APPROVAL OF BALLAST WATER MANAGEMENT SYSTEMS</u></b></p> <p><b>11.2 Approval Application</b></p> <p><b>11.2.2 Documents to be Submitted</b>  <b>1</b> The drawings and documents listed below are to be submitted together with the application specified in <b>11.2.1</b>.             ((1) to (9) are omitted)</p> <p><b>11.5 Approval Test</b></p> <p><b>11.5.5 Land-based Testing</b>  <b>3</b> Influent Water            ((1) to (3) are omitted)  <b>(4)</b> For any given set of test cycles (five are considered a set) a salinity range is to be chosen for each cycle. Given the salinity of the test set up for a test cycle in fresh, brackish and marine water, each is to have dissolved and particulate content in one of the following combinations in <b>Table 3.11-1</b>. Deviations from the marine and brackish salinity ranges of the table are to be reported and justified and the resulting tests are not to be less challenging for the <i>BWMS</i> than would be the circumstance if the deviations had not</p>	<p>confirmation by the Society’s Surveyor.</p> <p><b>Chapter 11    <u>BALLAST WATER MANAGEMENT SYSTEMS</u></b></p> <p><b>11.2 Approval Application</b></p> <p><b>11.2.2 Documents to be Submitted</b>  <b>1</b> The drawings and documents listed below are to be submitted <u>in triplicate</u> together with the application specified in <b>11.2.1</b>.             ((1) to (9) are omitted)</p> <p><b>11.5 Approval Test</b></p> <p><b>11.5.5 Land-based Testing</b>  <b>3</b> Influent Water            ((1) to (3) are omitted)  <b>(4)</b> For any given set of test cycles (five are considered a set) a salinity range is to be chosen for each cycle. Given the salinity of the test set up for a test cycle in fresh, brackish and marine water, each is to have dissolved and particulate content in one of the following combinations in <b>Table 2.11-1</b>. Deviations from the marine and brackish salinity ranges of the table are to be reported and justified and the resulting tests are not to be less challenging for the <i>BWMS</i> than would be the circumstance if the deviations had not</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>occurred: [Annex / 2.29]</p> <p>(5) (Omitted)</p> <p>(6) The <i>BWMS</i> is to be tested in conditions for which it will be approved. For a <i>BWMS</i> to achieve an unlimited Type Approval Certificate specified in 11.6.2 with respect to salinity, one set of test cycles is to be conducted within each of the three salinity ranges with the associated dissolved and particulate content as prescribed in <b>Table 3.11-2</b>. Tests under adjacent salinity ranges in the above table are to be separated by at least 10 <i>PSU</i> (<i>Practical Salinity Unit</i>). [Annex / 2.31]</p> <p><b>4 Test Items</b></p> <p>The methods and acceptance criteria for land-based testing are specified in <b>Table 3.11-2</b>.</p> <p align="center">Table 3.11-1 Influent Water (Table is omitted)</p> <p>Table 3.11-2 Methods and Acceptance Criteria for Land-based Testing (Table is omitted)</p> <p><b>11.5.6 Shipboard Testing</b></p> <p>During shipboard testing, it is to be verified that the entire <i>BWMS</i> is in good working order and complies with the ballast water performance standard on a ship in which it is actually in use.</p> <p>(1) Testing Requirements</p> <p>(a) (Omitted)</p> <p>(b) In evaluating the performance of <i>BWMS</i></p>	<p>occurred: [Annex / 2.29]</p> <p>(5) (Omitted)</p> <p>(6) The <i>BWMS</i> is to be tested in conditions for which it will be approved. For a <i>BWMS</i> to achieve an unlimited Type Approval Certificate specified in 11.6.2 with respect to salinity, one set of test cycles is to be conducted within each of the three salinity ranges with the associated dissolved and particulate content as prescribed in <b>Table 2.11-2</b>. Tests under adjacent salinity ranges in the above table are to be separated by at least 10 <i>PSU</i> (<i>Practical Salinity Unit</i>). [Annex / 2.31]</p> <p><b>4 Test Items</b></p> <p>The methods and acceptance criteria for land-based testing are specified in <b>Table 2.11-2</b>.</p> <p align="center">Table 2.11-1 Influent Water (Table is omitted)</p> <p>Table 2.11-2 Methods and Acceptance Criteria for Land-based Testing (Table is omitted)</p> <p><b>11.5.6 Shipboard Testing</b></p> <p>During shipboard testing, it is to be verified that the entire <i>BWMS</i> is in good working order and complies with the ballast water performance standard on a ship in which it is actually in use.</p> <p>(1) Testing Requirements</p> <p>(a) (Omitted)</p> <p>(b) In evaluating the performance of <i>BWMS</i></p>	<p></p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>installation(s) on a ship or ships, the following information and results are to be supplied to the satisfaction of the Society. [Annex / 2.8]                      (i) to v) are omitted)                      vi) Sampling regime and volumes for analysis(refer to -2 in <b>Table 3.11-3</b>): [Annex / 2.8.6]</p> <p>(2) Test Items                      The test method and acceptance criteria are shown in <b>Table 3.11-3</b>.</p> <p>Table 3.11-3 Test Method and Acceptance Criteria of Shipboard Testing                      (Table is omitted)</p> <p><b>11.6 Approval</b></p> <p><b>11.6.1 Test Records</b>                      1 The manufacturer is to prepare records of the approval test after completion of the test, to obtain verification by the Society’s attending surveyor and then to submit them, to the Society. Then, following items are to be incorporated.</p> <p>((1) to (14) are omitted)</p>	<p>installation(s) on a ship or ships, the following information and results are to be supplied to the satisfaction of the Society. [Annex / 2.8]                      (i) to v) are omitted)                      vi) Sampling regime and volumes for analysis(refer to -2 in <b>Table 2.11-3</b>): [Annex / 2.8.6]</p> <p>(2) Test Items                      The test method and acceptance criteria are shown in <b>Table 2.11-3</b>.</p> <p>Table 2.11-3 Test Method and Acceptance Criteria of Shipboard Testing                      (Table is omitted)</p> <p><b>11.6 Approval</b></p> <p><b>11.6.1 Test Records</b>                      1 The manufacturer is to prepare records of the approval test after completion of the test, to obtain verification by the Society’s attending surveyor and then to submit them, <u>in triplicate</u>, to the Society. Then, following items are to be incorporated.</p> <p>((1) to (14) are omitted)</p>	<p>Figure and table numbers have been changed due to reorganization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>Chapter 12</b>    <b><u>TYPE APPROVAL OF CONTAINER SECURING FITTINGS</u></b></p> <p><b>12.1 General</b></p> <p><b>12.1.1 Application</b>  <u>Type approval</u> procedures for fittings specified in 9.1.5, Part L of the Rules for the Survey and Construction of Steel Ships are to be in accordance with this chapter.</p> <p><b>Part 4 WELDING CONSUMABLES</b></p> <p><b>Chapter 1</b>    <b><u>TYPE APPROVAL OF WELDING CONSUMABLES</u></b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>            In accordance with the requirements in 6.1.3 and 6.1.4, Part M of Rules for the Survey and Construction of Steel Ships (hereinafter referred to as “the Rules”), the requirements in this chapter apply to tests and inspection <u>regarding type approval of welding consumables.</u></p>	<p><b>Chapter 12</b>    <b>APPROVAL OF CONTAINER SECURING FITTINGS</b></p> <p><b>12.1 General</b></p> <p><b>12.1.1 Application</b>  <u>Approval</u> procedures for fittings specified in 9.1.5, Part L of the Rules for the Survey and Construction of Steel Ships are to be in accordance with this chapter.</p> <p><b>Part 3 WELDING CONSUMABLES</b></p> <p><b>Chapter 1</b>    <b><u>APPROVAL OF WELDING CONSUMABLES</u></b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>            In accordance with the requirements in 6.1.3 and 6.1.4, Part M of Rules for the Survey and Construction of Steel Ships (hereinafter referred to as “the Rules”), the requirements in this chapter apply to tests and inspection <u>for the purpose of treating welding consumables as approved welding consumables.</u></p>	<p>Terminology alignment</p> <p>To align with the structure of other rules, the General Provisions are designated as Part 1, and the former Parts 1 to 4 are reorganized accordingly. Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>1.2 Approval Application</b></p> <p><b>1.2.1 Approval Application Form</b>                      Manufacturers wishing to obtain approval are to submit to the Society (Branch Office) the appropriate application form (<b>Form 3-1</b>), which includes for each manufacturing plant the brands of the welding consumables (for submerged arc welding consumables, each brand of core wire and combination flux), kind, symbol, purpose, maximum core wire diameter produced and the maximum quantity hydrogen (this is limited to non-low-hydrogen electrodes for high tensile sheets), together with each of documents and data specified in 1.2.3.</p> <p><b>1.4 Approval Tests</b></p> <p><b>1.4.3 Test Records</b>                      After completion of the approval test, the manufacturer is to produce records of approval test and is to submit them to the Society (Branch Office) upon receiving confirmation by the attending surveyor.</p> <p><b>1.5 Approval</b></p> <p><b>1.5.1 Notification of Approval</b>                      The Society examines the submitted test record and results of confirmation survey, and if found satisfactory, the welding consumables shall be approved and an approval certificate <u>specifying the approval number, date of approval, type, model,</u></p>	<p><b>1.2 Approval Application</b></p> <p><b>1.2.1 Approval Application Form</b>                      Manufacturers wishing to obtain approval are to submit to the Society (Branch Office) <u>a single copy of the</u> appropriate application form (<b>Form 3-1</b>), which includes for each manufacturing plant the brands of the welding consumables (for submerged arc welding consumables, each brand of core wire and combination flux), kind, symbol, purpose, maximum core wire diameter produced and the maximum quantity hydrogen (this is limited to non-low-hydrogen electrodes for high tensile sheets), together with <u>two copies</u> each of documents and data specified in 1.2.3.</p> <p><b>1.4 Approval Tests</b></p> <p><b>1.4.3 Test Records</b>                      After completion of the approval test, the manufacturer is to produce records of approval test and is to submit <u>three copies of them</u> to the Society (Branch Office) upon receiving confirmation by the attending surveyor.</p> <p><b>1.5 Approval</b></p> <p><b>1.5.1 Notification of Approval</b>                      The Society examines the submitted test record and results of confirmation survey, and if found satisfactory, the welding consumables shall be approved and an approval certificate shall be issued to each brand. The date of issue of</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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<p><u>and other relevant particulars</u> shall be issued <u>for</u> each brand. The date of issue of the approval certificate is to be coincided with the date of completion of the approval test.</p> <p><b>1.6 Annual Inspection</b></p> <p><b>1.6.3 Test Records</b>                      After completion of the test in annual inspection, the manufacturer is to prepare test reports and submit them to the Society (Branch Office) upon receiving confirmation by the attending surveyor.</p> <p><b>1.7 Change in the Approval Content</b></p> <p><b>1.7.1 Application for Change</b>  <b>1</b> In case when the particulars of the welding consumables which being mentioned in the certificate of approval, such as grade, welding position, maximum diameter of electrodes or shield gas, is changed, the manufacturer is to submit the appropriate application form (<b>Form 3-1</b>) for change together with necessary data to the Society (Branch Office), and necessary additional approval tests are to be carried out accordingly.  <b>2</b> When the significant changes in compositions or manufacturing process of the wire and flux or removal of manufacturing plant is made, the manufacturer is to submit notification of alternation in any preferred form together with necessary data to the Society (Branch Office), and necessary confirmation survey and test may be carried out accordingly.</p>	<p>the approval certificate is to be coincided with the date of completion of the approval test.</p> <p><b>1.6 Annual Inspection</b></p> <p><b>1.6.3 Test Records</b>                      After completion of the test in annual inspection, the manufacturer is to prepare <u>two copies of</u> test reports and submit them to the Society (Branch Office) upon receiving confirmation by the attending surveyor.</p> <p><b>1.7 Change in the Approval Content</b></p> <p><b>1.7.1 Application for Change</b>  <b>1</b> In case when the particulars of the welding consumables which being mentioned in the certificate of approval, such as grade, welding position, maximum diameter of electrodes or shield gas, is changed, the manufacturer is to submit <u>a single copy of</u> the appropriate application form (<b>Form 3-1</b>) for change together with <u>two copies of</u> necessary data to the Society (Branch Office), and necessary additional approval tests are to be carried out accordingly.  <b>2</b> When the significant changes in compositions or manufacturing process of the wire and flux or removal of manufacturing plant is made, the manufacturer is to submit <u>a single copy of</u> notification of alternation in any preferred form together with <u>three copies of</u> necessary data to the Society (Branch Office), and necessary confirmation survey and test may be carried out accordingly.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>1.10 Reduction of Approval Test for the Same Brand of Approved Consumables</b></p> <p><b>1.10.1 <u>Approval Application</u></b> In case when the manufacturer request reduction of part of approval test under the provisions of <b>6.1.3-4 and -5, Part M of the Rules</b>, the manufacturer is to submit the appropriate application form (<b>Form 3-1</b>) with descriptions for this reduction and the following data to the Society (Head office). (1) to (5) are omitted.)</p> <p><b>1.10.2 <u>Approval Test Plan</u></b> The society studies the application and data being submitted and, if deemed appropriate, may permit the reduced approval test at least equivalent to annual test. In this case the approval test plan will be approved and returned to the manufacturer.</p> <p><b>1.11 Approval Test and Annual Inspection for Welding Consumables which are Not Specified in the Rules</b></p> <p><b>1.11.1 Approval Test</b> <b>1</b> The manufacturer, who wishes the approval of welding consumables to which the provisions in <b>6.1.3-3, Part M of the Rules</b> has been applied, is to submit the appropriate application form (<b>Form 3-1</b>) and the following data to the Society (Head office). (1) to (3) are omitted)</p>	<p><b>1.10 Reduction of Approval Test for the Same Brand of Approved Consumables</b></p> <p><b>1.10.1</b> In case when the manufacturer request reduction of part of approval test under the provisions of <b>6.1.3-4 and -5, Part M of the Rules</b>, the manufacturer is to submit the appropriate application form (<b>Form 3-1</b>) with descriptions for this reduction and <u>three copies</u> of the following data to the Society (Head office). (1) to (5) are omitted.)</p> <p><b>1.10.2</b> The society studies the application and data being submitted and, if deemed appropriate, may permit the reduced approval test at least equivalent to annual test. In this case the approval test plan will be approved and returned to the manufacturer.</p> <p><b>1.11 Approval Test and Annual Inspection for Welding Consumables which are Not Specified in the Rules</b></p> <p><b>1.11.1 Approval Test</b> <b>1</b> The manufacturer, who wishes the approval of welding consumables to which the provisions in <b>6.1.3-3, Part M of the Rules</b> has been applied, is to submit the appropriate application form (<b>Form 3-1</b>) and <u>three copies</u> of the following data to the Society (Head office). (1) to (3) are omitted)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>



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Amended	Original	Remarks
<p style="text-align: center;"><b>Part 5 NON-METALLIC MATERIALS AND COATING MATERIALS FOR HULL</b></p> <p style="text-align: center;"><b>Chapter 1 TYPE APPROVAL OF FIRE PROTECTION MATERIALS</b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>  1 The requirements of this Chapter apply to the tests and inspections for the <u>type</u> approval of fire protection material specified in (1) through (12) below in accordance with the requirements of Part P and Part R of the Rules for the Survey and Construction of Steel Ships (hereinafter referred to as “the Rules”).  ((1) to (12) are omitted)</p> <p><b>1.4 Application Procedure for Approval</b></p> <p><b>1.4.1 Application Form for Approval</b>  1 When obtaining the approval of fire protection materials except fire retardant coatings, the appropriate application form (Form 4-1) accompanied by the documents specified in 1.4.3-1 is submitted to the Society (Head Office).</p> <p>2 When obtaining the approval for fire retardant coatings, the appropriate application form (Form 4-2_5)</p>	<p style="text-align: center;"><b>Part 4 NON-METALLIC MATERIALS AND COATING MATERIALS FOR HULL</b></p> <p style="text-align: center;"><b>Chapter 1 APPROVAL OF FIRE PROTECTION MATERIALS</b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>  1 The requirements of this Chapter apply to the tests and inspections for the approval of fire protection material specified in (1) through (12) below in accordance with the requirements of Part P and Part R of the Rules for the Survey and Construction of Steel Ships (hereinafter referred to as “the Rules”).  ((1) to (12) are omitted)</p> <p><b>1.4 Application Procedure for Approval</b></p> <p><b>1.4.1 Application Form for Approval</b>  1 When obtaining the approval of fire protection materials except fire retardant coatings, the appropriate application form (Form 4-1) accompanied by the documents specified in 1.4.3-1 <u>(one for each item)</u> is submitted to the Society (Head Office).</p> <p>2 When obtaining the approval for fire retardant coatings, the appropriate application form (Form 4-2_5)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>accompanied by the documents specified in 1.4.3-2 is submitted to the Society (Head Office).</p> <p><b>1.7 Notice of Approval</b></p> <p><b>1.7.1 Notice of Approval</b></p> <p>1 The Society issues the <i>Certificate of Approval specifying the approval number, date of approval, type, model, and other relevant particulars</i>, in accordance with the FTP Code after having approved the material by the general judgment on the basis of the results of examination of the submitted documents and the results of the confirmatory survey of manufacturer for approval and approval tests.</p> <p>2 When the Society approves watertightness or gas-tightness in accordance with 1.3.2-2 and 1.3.3-2, such information may be added to the <i>Certificate of Approval</i> by the Society along with the approved maximum design pressure. In cases where maximum design pressure is different for each installation, each design pressure is to be indicated.</p> <p><b>1.7.2 Validity of Certificate of Approval</b></p> <p><u>The valid term of the <i>Certificate of Approval</i> is five years from the date of approval.</u></p> <p><b>1.10 Periodical Test</b></p> <p><b>1.10.1 Interval of Periodical Test</b></p> <p>Periodical test is carried out before or on the expiry</p>	<p>accompanied by the documents specified in 1.4.3-2 (<u>one for each item</u>) is submitted to the Society (Head Office).</p> <p><b>1.7 Notice of Approval</b></p> <p><b>1.7.1 Notice of Approval</b></p> <p>1 The Society issues the <i>Certificate of Approval for Fire Protection Material</i> in accordance with the FTP Code after having approved the material by the general judgment on the basis of the results of examination of the submitted documents and the results of the confirmatory survey of manufacturer for approval and approval tests.</p> <p>2 When the Society approves watertightness or gas-tightness in accordance with 1.3.2-2 and 1.3.3-2, such information may be added to the <i>Certificate of Approval for Fire Protection Material</i> by the Society along with the approved maximum design pressure. In cases where maximum design pressure is different for each installation, each design pressure is to be indicated.</p> <p><b>1.7.2 Validity of Certificate of Approval for Fire Protection Material</b></p> <p><u>The <i>Certificate of Approval for Fire Protection Material</i> is valid for five years.</u></p> <p><b>1.10 Periodical Test</b></p> <p><b>1.10.1 Interval of Periodical Test</b></p> <p>Periodical test is carried out before or on the expiry</p>	<p>Terminology alignment</p> <p>The approval certificate for fire protection materials include the approval number, date of approval, type, model, and other relevant details</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>date of the <i>Certificate of Approval</i>.</p> <p><b>1.10.2 Periodical Tests for Approved Materials other than Fire Retardant Coatings</b></p> <p>1 The appropriate application form (Form 4-3) accompanied with necessary the records of manufacture and the specifications of the products specified in 1.4.3-1(6) is submitted to the Society (Head Office).</p> <p><b>1.10.3 Periodical Test for Fire Retardant Coatings</b></p> <p>1 The appropriate application form (Form 4-4) accompanied by necessary the records of manufacture and the list of coating system and the table of chemical composition specified in 1.4.3-3(5) and (6) respectively is submitted to the Society (Head Office).</p> <p><b>1.10.4 Notice of Renewal</b></p> <p>1 The Society issues the <i>Certificate of Approval</i> which is valid for five <i>years</i> from the date of completion of the periodical tests when the Society ascertains continuous compliance with the type approval conditions by the review of the test report of the periodical tests specified in 1.10.2 or 1.10.3.</p>	<p>date of the <i>Certificate of Approval for Fire Protection Material</i>.</p> <p><b>1.10.2 Periodical Tests for Approved Materials other than Fire Retardant Coatings</b></p> <p>1 The appropriate application form (Form 4-3) accompanied with necessary <u>copies</u> of the records of manufacture and the specifications of the products specified in 1.4.3-1(6) is submitted to the Society (Head Office).</p> <p><b>1.10.3 Periodical Test for Fire Retardant Coatings</b></p> <p>1 The appropriate application form (Form 4-4) accompanied by necessary <u>copies of</u> the records of manufacture and the list of coating system and the table of chemical composition specified in 1.4.3-3(5) and (6) respectively is submitted to the Society (Head Office).</p> <p><b>1.10.4 Notice of Renewal</b></p> <p>1 The Society issues the <i>Certificate of Approval for Fire Protection Material</i> which is valid for five <i>years</i> from the date of completion of the periodical tests when the Society ascertains continuous compliance with the type approval conditions by the review of the test report of the periodical tests specified in 1.10.2 or 1.10.3.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>Chapter 2 TYPE APPROVAL OF <u>INSULATION MATERIALS FOR REFRIGERATED CHAMBERS AND OIL-IMPERVIOUS COVERINGS</u></b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 Scope</b> The requirements in this chapter apply to tests and inspection for the type approval of materials intended to be used for insulating the refrigerated chambers and oil-impervious composition provided for the surface of oil tanks adjacent refrigerated chambers (hereinafter referred to as “oil-impervious covering”) in accordance with the requirements of 5.2.1-1 and 5.2.5 of the Rules for Cargo Refrigerating Installations. (Delete)</p>	<p><b>Chapter 2 TYPE APPROVAL OF MATERIALS FOR <u>INSULATION AND OIL-IMPERVIOUS COVERINGS</u></b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 Scope</b> <b>1</b> The requirements in this chapter apply to tests and inspection for the type approval of materials intended to be used for insulating the refrigerated chambers and oil-impervious composition provided for the surface of oil tanks adjacent refrigerated chambers (hereinafter referred to as “oil-impervious covering”) in accordance with the requirements of 5.2.1-1 and 5.2.5 of the Rules for Cargo Refrigerating Installations. <b>2</b> Tests and inspections related to the type approval of <u>materials intended to be used for the insulation of ships carrying liquefied gases in bulk requiring Society approval in accordance with the requirements of Chapter 4, Part N of the Rules for the Survey and Construction of Steel Ships</u> are to follow the requirements specified in this chapter.</p>	<p>Terminology alignment</p> <p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been deleted.(Transfer from Annex 1 of Part N and</p>

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Amended	Original	Remarks
<p>(Delete)</p> <p><b>2.2 Application Procedures</b></p> <p><b>2.2.1 Procedures</b> Application for type approval is to be made to the Society (Head Office) using an application form (<b>Form 4-6</b>) together with each of the documents specified in 2.2.4.</p> <p><b>2.2.3 Applicant</b> Material manufacturer is, in general, to be the applicant for approval except where the applicant other than manufacturer has final responsibility for the quality of products.</p> <p><b>2.2.5 Omission of Documents</b> (1) The manufacturers, who have the products already approved according to the requirements of this chapter, may omit submission of the documents which is a duplicate of those examined at previous approval if they so indicate. (2) (Omitted)</p>	<p><u>3</u>Tests and inspections related to the type approval of materials intended to be used for the insulation of ships using low-flashpoint fuels requiring Society approval in accordance with the requirements of <b>Chapter 6, Part GF of the Rules for the Survey and Construction of Steel Ships</b> are to follow the requirements specified in this chapter.</p> <p><b>2.2 Application Procedures</b></p> <p><b>2.2.1 Procedures</b> Application for type approval is to be made to the Society (Head Office) using an application form (<b>Form 4-6</b>) together with <u>3 copies</u> each of the documents specified in 2.2.4.</p> <p><b>2.2.3 Applicant</b> Material manufacturer is, in general, to be the applicant for <u>type</u> approval except where the applicant other than manufacturer has final responsibility for the quality of products.</p> <p><b>2.2.5 Omission of Documents</b> (1) The manufacturers, who have the products already approved according to the requirements of this chapter, may omit submission of the documents which is a duplicate of those examined at previous <u>type</u> approval if they so indicate. (2) (Omitted)</p>	<p>GF.)</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>2.4 Approval Test</b></p> <p><b>2.4.1 General</b>                      ((1) to (4) are omitted)                      (5) <u>The test record are to be submitted to the Society.</u>                      (6) (Omitted)</p> <p><b>2.4.2 Insulation Materials</b>                      (1) The items represented by mark ○ in <b>Table 4.2-1</b> are to be tested for the insulation materials. However, materials not given in the table are to be considered in each case.                      (2) (Omitted)                      (Delete)</p> <p>(Delete)</p> <p>Table 5.2-1 Approval Test Items of Insulation Materials                      (Table is omitted)</p>	<p><b>2.4 Approval Test</b></p> <p><b>2.4.1 General</b>                      ((1) to (4) are omitted)                      (5) <u>Two copies of the test record are to be submitted to the Society.</u>                      (6) (Omitted)</p> <p><b>2.4.2 Insulation Materials</b>                      (1) The items represented by mark ○ in <b>Table 4.2-1</b> are to be tested for the insulation materials. However, materials not given in the table are to be considered in each case.                      (2) (Omitted)                      (3) <u>The test items and testing procedure, etc. for materials intended to be used for the insulation of ships carrying liquefied gases in bulk are to comply with the requirements in the “Guidance for Equipment and Fittings of Ships Carrying Liquefied Gases in Bulk”.</u>                      (4) <u>The test items and testing procedure, etc. for materials intended to be used for the insulation of ships using low-flashpoint fuels are to comply with the requirements in the “Guidance for Equipment and Fittings of Ships Using Low-flashpoint Fuels”.</u></p> <p>Table 4.2-1 Approval Test Items of Insulation Materials                      (Table is omitted)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>In order to add "TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use, the current requirement have been deleted.(Transfer from Annex 1 of Part N and GF.)                      Figure and table numbers have been changed due to</p>

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<p><b>2.4.3 Oil-impervious Covering</b></p> <p>(1) Tank top covering The test items and testing procedure given in <b>Table 5.2-2</b> are to be carried out for the tank top covering.</p> <p>(2) Tank side covering The tests are to be carried out in accordance with requirements specified in <b>Table 5.2-2</b>. In addition to these tests, the tests given in <b>Table 5.2-3</b> are to be carried out for the tank side covering.</p> <p>Table 5.2-2 Approval Test Items and Testing Procedure for Tank Top Covering for Oil Tanks (Table is omitted)</p> <p>Table 5.2-3 Approval Test Items and Testing Procedure for Tank Side Covering (Table is omitted)</p> <p><b>2.5 Certificate of Approval</b></p> <p>When the Society is satisfied with the results of the examination of the documents submitted, the survey specified in 2.3 and the approval test specified in 2.4, the Society issue the Certificate of Approval <u>specifying the approval number, date of approval, type, model, and other relevant particulars</u>, for Materials for Refrigerated Chambers. The valid term of the Certificate is remained for 5 <i>years</i> from the date of issue.</p>	<p><b>2.4.3 Oil-impervious Covering</b></p> <p>(1) Tank top covering The test items and testing procedure given in <b>Table 4.2-2</b> are to be carried out for the tank top covering.</p> <p>(2) Tank side covering The tests are to be carried out in accordance with requirements specified in <b>Table 4.2-2</b>. In addition to these tests, the tests given in <b>Table 4.2-3</b> are to be carried out for the tank side covering.</p> <p>Table 4.2-2 Approval Test Items and Testing Procedure for Tank Top Covering for Oil Tanks (Table is omitted)</p> <p>Table 4.2-3 Approval Test Items and Testing Procedure for Tank Side Covering (Table is omitted)</p> <p><b>2.5 Certificate of <u>Type</u> Approval</b></p> <p>When the Society is satisfied with the results of the examination of the documents submitted, the survey specified in 2.3 and the approval test specified in 2.4, the Society issue the Certificate of <u>Type</u> Approval for Materials for Refrigerated Chambers. The valid term of the Certificate is remained for 5 <i>years</i> from the date of issue.</p>	<p>reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Figure and table numbers have been changed due to reorganization</p> <p>Terminology alignment</p>

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<p><b>2.6 Markings</b></p> <p>The marking and packaging are to be as shown in the documents attached to the application for the approval and no changes are to be made without agreement by the Society. The approval number is to be indicated to declare the approval by the Society.</p> <p><b>2.8 Periodical Examination</b></p> <p><b>2.8.3 Renewal of the Certificate of Approval</b></p> <p>When the results of the periodical examination are considered acceptable to the Society, the Society reissues the Certificate of Approval for Materials for Refrigerated Chambers specified 2.5.</p> <p><b>2.9 Revocation of Approval</b></p> <p><b>2.9.1 Revocation of Approval</b></p> <p>Approval be revoked if any of the following cases is found relevant.</p> <ol style="list-style-type: none"> <li>(1) When doubt occurs on the performance of the approved material as a result of the service record.</li> <li>(2) When the manufacturer is not subjected to the periodical examination.</li> <li>(3) When the material failed to pass the periodical examination.</li> <li>(4) When the manufacturer offers to stop manufacturing the material.</li> <li>(5) When the manufacturer requests to withdraw the type</li> </ol>	<p><b>2.6 Markings</b></p> <p>The marking and packaging are to be as shown in the documents attached to the application for the <u>type</u> approval and no changes are to be made without agreement by the Society. The approval number is to be indicated to declare the <u>type</u> approval by the Society.</p> <p><b>2.8 Periodical Examination</b></p> <p><b>2.8.3 Renewal of the Certificate of <u>Type</u> Approval</b></p> <p>When the results of the periodical examination are considered acceptable to the Society, the Society reissues the Certificate of <u>Type</u> Approval for Materials for Refrigerated Chambers specified 2.5.</p> <p><b>2.9 Revocation of <u>Type</u> Approval</b></p> <p><b>2.9.1 Revocation of <u>Type</u> Approval</b></p> <p><u>Type</u> approval be revoked if any of the following cases is found relevant.</p> <ol style="list-style-type: none"> <li>(1) When doubt occurs on the performance of the approved material as a result of the service record.</li> <li>(2) When the manufacturer is not subjected to the periodical examination.</li> <li>(3) When the material failed to pass the periodical examination.</li> <li>(4) When the manufacturer offers to stop manufacturing the material.</li> <li>(5) When the manufacturer requests to withdraw the type</li> </ol>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p>approval.</p> <p><b>Chapter 3    <u>TYPE</u> APPROVAL OF RAW MATERIALS FOR HULL OF SHIPS OF FIBREGLASS REINFORCED PLASTICS</b></p> <p><b>3.1 Scope</b></p> <p><b>3.1.1 Application</b> This chapter applies to the <u>Type</u> approval and retention of <u>type</u> approval of the raw materials to be used in the following (1) through (4) for FRP boats conforming to the requirements of 4.2.1 of the Rules for the Survey and Construction of Ships of Fibreglass Reinforced Plastics: (1) to (4) are omitted)</p> <p><b>3.2 Approval Application Procedures</b></p> <p><b>3.2.1 Application for Approval</b> Manufacturer who intends to obtain approval is to submit the appropriate application form in duplicate, stating the brand name and type of raw materials (<b>Form 4-8</b>) accompanied by the reference materials and data, as shown in 3.2.3 to the Society (Head Office).</p>	<p>approval.</p> <p><b>Chapter 3    APPROVAL OF RAW MATERIALS FOR HULL OF SHIPS OF FIBREGLASS REINFORCED PLASTICS</b></p> <p><b>3.1 Scope</b></p> <p><b>3.1.1 Application</b> This chapter applies to the approval and retention of approval of the raw materials to be used in the following (1) through (4) for FRP boats conforming to the requirements of 4.2.1 of the Rules for the Survey and Construction of Ships of Fibreglass Reinforced Plastics: (1) to (4) are omitted)</p> <p><b>3.2 Approval Application Procedures</b></p> <p><b>3.2.1 Application for Approval</b> Manufacturer who intends to obtain approval is to submit the appropriate application form in duplicate, stating the brand name and type of raw materials (<b>Form 4-8</b>) accompanied by the reference materials and data, <u>each in duplicate</u>, as shown in 3.2.3 to the Society (Head Office).</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>3.5 Notification of Approval</b></p> <p><b>3.5.1 Submission of Approval Test Records</b> On completion of tests, the applicant is to submit the approval test records, with the signature of the surveyor who attended the tests obtained thereon, to the Society (Branch Office).</p> <p><b>3.5.2 Issue of Approval Certificate</b> The Society approves the items of material on finding the results of approval tests and confirmation survey to be satisfactory after examining them and issues approval certificates <u>specifying the approval number, date of approval, type, model, and other relevant particulars</u> for each brand of products for each manufacturer who has applied for approval.</p> <p><b>3.6 Periodical Tests</b></p> <p><b>3.6.2 Application for Periodical Test</b> The manufacturer is to submit the appropriate application form (Form 4-9), to the Society (Branch Office) before the date of periodical test.</p> <p><b>3.6.5 Submission of Test Records</b> On successful completion of periodical test, the manufacturer is to submit the test results, with the attending surveyor’s signature on them to the Branch Office of the Society concerned.</p>	<p><b>3.5 Notification of Approval</b></p> <p><b>3.5.1 Submission of Approval Test Records</b> On completion of tests, the applicant is to submit the approval test records, <u>in triplicated</u>, with the signature of the surveyor who attended the tests obtained thereon, to the Society (Branch Office).</p> <p><b>3.5.2 Issue of Approval Certificate</b> The Society approves the items of material on finding the results of approval tests and confirmation survey to be satisfactory after examining them and issues approval certificates for each brand of products for each manufacturer who has applied for approval.</p> <p><b>3.6 Periodical Tests</b></p> <p><b>3.6.2 Application for Periodical Test</b> The manufacturer is to submit the appropriate application form (Form 4-9), <u>in duplicate</u>, to the Society (Branch Office) before the date of periodical test.</p> <p><b>3.6.5 Submission of Test Records</b> On successful completion of periodical test, the manufacturer is to submit the test results, <u>in duplicate</u>, with the attending surveyor’s signature on them to the Branch Office of the Society concerned.</p>	<p>Terminology alignment</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>3.6.6 Renewal of Validity of Certificate</b> For the approved materials that passed the periodical test, the Society (Branch Office) makes renewal of the validity of the certificate. The validity is, irrespective of the date of completion of the periodical test, to be one <i>year</i> from the next day of expiry of the previous validity.</p> <p><b>Chapter 4      <u>TYPE APPROVAL OF COATING SYSTEM</u></b></p> <p><b>4.1 一般</b></p> <p><b>4.1.1 適用</b> 1 The requirements of this chapter apply to tests and inspection for <u>Type approval</u> of coating system specified in (1)(a) or (2)(a), item1, Table B2.10, Part B of the Rules for the Survey and Construction of Steel Ships or 2.1.9-2(1), Part 2, Guidance for the Survey and Construction of Passenger Ships.</p> <p><b>4.2 Application Procedures</b></p> <p><b>4.2.1 Application for Approval</b> Manufacturer who intends to obtain approval is to submit the appropriate application form stating the type and uses of the coating system (<b>Form 4-14</b>), the documents specified in 4.2.2 and the test plan to the Society (one of its</p>	<p><b>3.6.6 Renewal of Validity of Certificate</b> For the approved materials that passed the periodical test, the Society (Branch Office) makes renewal of the validity of the certificate. The validity is, irrespective of the date of completion of the periodical test, to be <u>full one year counting</u> from the next day of expiry of the previous validity.</p> <p><b>Chapter 4      APPROVAL OF COATING SYSTEM</b></p> <p><b>4.1 General</b></p> <p><b>4.1.1 Application</b> 1 The requirements of this chapter apply to tests and inspection for approval of coating system specified in (1)(a) or (2)(a), item1, Table B2.10, Part B of the Rules for the Survey and Construction of Steel Ships or 2.1.9-2(1), Part 2, Guidance for the Survey and Construction of Passenger Ships.</p> <p><b>4.2 Application Procedures</b></p> <p><b>4.2.1 Application for Approval</b> Manufacturer who intends to obtain approval is to submit the appropriate application form stating the type and uses of the coating system (<b>Form 4-14</b>), <u>three copies of the documents</u> specified in 4.2.2 and <u>three copies of the test plan</u></p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>branches).</p> <p><b>4.5 Notice of Approval</b></p> <p><b>4.5.3 Renewal of Approval</b>  <b>1</b> In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and the data showing actual manufacturing records of the coating constituted coating system within the specific period together with the appropriate application from (Form 4-14).</p> <p><b>4.5.4 Changes in Approval Content</b>  <b>1</b> In case of changes to an approved system, the applicant is to submit the “Certificate of Approval” (copy) and the documents specified in 4.2.2 together with the appropriate application form (Form 4-14).</p> <p align="center"><b>Chapter 5    <u>TYPE APPROVAL OF NON-METALLIC BEARING MATERIAL FOR RUDDERS</u></b></p> <p><b>5.1 General</b></p> <p><b>5.1.1 Scope</b>  This chapter applies to the testing and inspection for the <u>type approval</u> of non-metallic bearing material for rudders specified in the requirements of 13.2.10, Part 1, Part C and</p>	<p>to the Society (one of its branches).</p> <p><b>4.5 Notice of Approval</b></p> <p><b>4.5.3 Renewal of Approval</b>  <b>1</b> In case of application for renewal of approval, the applicant is to submit a “Certificate of Approval” (copy) and <u>three copies</u> of the data showing actual manufacturing records of the coating constituted coating system within the specific period together with the appropriate application from (Form 4-14).</p> <p><b>4.5.4 Changes in Approval Content</b>  <b>1</b> In case of changes to an approved system, the applicant is to submit the “Certificate of Approval” (copy) and <u>three copies</u> of the documents specified in 4.2.2 together with the appropriate application form (Form 4-14).</p> <p align="center"><b>Chapter 5    <u>APPROVAL OF MANUFACTURING PROCESS OF NON-METALLIC BEARING MATERIAL FOR RUDDERS</u></b></p> <p><b>5.1 General</b></p> <p><b>5.1.1 Scope</b>  This chapter applies to the testing and inspection for the approval of <u>manufacturing process</u> of non-metallic bearing material for rudders specified in the requirements of</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment  To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>3.11, Part CS of the Rules for the Survey and Construction of Steel Ships.</b></p> <p><b>5.2 Approval Application</b></p> <p><b>5.2.1 Approval Application Form</b>                      Manufacturers wishing to obtain the <u>type</u> approval of non-metallic bearing material for rudders are to submit the appropriate application form (Form 4-11).</p> <p><b>5.2.2 Data to be Submitted</b>                      1 Each of the drawings and documents given as follows to be submitted together with the appropriate application form specified in 5.2.1.                      ((1) to (8) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.4 Submission of Test Records</b>                      After completion of the approval test, the manufacturer is to produce records of approval test, and is to submit <u>them</u> to the Society upon receiving confirmation by the Society’s Surveyor.</p> <p><b>5.5 Approval</b></p> <p><b>5.5.1 Notification of Approval</b>                      The Society, when it considers that the result of field Assessment and approval test are appropriate, is to approve</p>	<p><b>13.2.10, Part 1, Part C and 3.11, Part CS of the Rules for the Survey and Construction of Steel Ships.</b></p> <p><b>5.2 Approval Application</b></p> <p><b>5.2.1 Approval Application Form</b>                      Manufacturers wishing to obtain the approval of <u>manufacturing process of</u> non-metallic bearing material for rudders are to submit <u>a single copy of</u> the appropriate application form (Form 4-11).</p> <p><b>5.2.2 Data to be Submitted</b>                      1 <u>Three copies each</u> of the drawings and documents given as follows to be submitted together with the appropriate application form specified in 5.2.1.                      ((1) to (8) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.4 Submission of Test Records</b>                      After completion of the approval test, the manufacturer is to produce records of approval test, and is to submit <u>the three copies</u> to the Society upon receiving confirmation by the Society’s Surveyor.</p> <p><b>5.5 Approval</b></p> <p><b>5.5.1 Notification of Approval</b>                      The Society, when it considers that the result of field Assessment and approval test are appropriate, is to approve</p>	<p>Terminology alignment                      To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>the manufacturing process of bearing materials applied for, give notice <u>specifying the approval number, date of approval, type, model, and other relevant particulars</u>, to the manufacturer and inform the branch office.</p> <p><b>5.5.2 Valid Term</b> A valid term of the approval certificate is <i>5 years</i> from the date of the initial or renewal approval. In case where the renewal assessment is carried out within <i>3 months</i> before the expiry date, a valid term of the certificate is <i>5 years</i> from the <u>next date of the expiry date of the previous validity</u>.</p> <p><b>Chapter 6 <u>TYPE APPROVAL OF AIRBORNE SOUND INSULATING MATERIALS USED FOR BULKHEADS AND DECKS</u></b></p> <p><b>6.1 General</b></p> <p><b>6.1.1 Scope</b> The requirements of this chapter apply to the tests and inspections for the <u>type approval</u> of the airborne sound insulating materials used for bulkheads and decks in accordance with the requirements of An5.2, Annex 2.3.1-2 “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS”, Part B of the Rules for the Survey and Construction of Steel Ships.</p>	<p>the manufacturing process of bearing materials applied for, give notice to the manufacturer and inform the branch office.</p> <p><b>5.5.2 Valid Term</b> A valid term of the approval certificate is <i>5 years</i> from the date of the initial or renewal approval. In case where the renewal assessment is carried out within <i>3 months</i> before the expiry date, a valid term of the certificate is <i>5 years</i> from the expiry date.</p> <p><b>Chapter 6 <u>APPROVAL OF AIRBORNE SOUND INSULATION PROPERTIES OF MATERIALS USED FOR BULKHEADS AND DECKS</u></b></p> <p><b>6.1 General</b></p> <p><b>6.1.1 Scope</b> The requirements of this chapter apply to the tests and inspections for the approval of the airborne sound <u>insulation properties</u> of materials used for bulkheads and decks in accordance with the requirements of An5.2, Annex 2.3.1-2 “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS”, Part B of the Rules for the Survey and Construction of Steel Ships.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>6.2 Application Procedures</b></p> <p><b>6.2.1 Procedures</b> The appropriate application form (<b>Form 4-12</b>) accompanied by each of the documents specified in <b>6.2.3</b> is to be submitted to the Society (Head Office).</p> <p><b>6.2.2 Applicant</b> Material manufacturers are to be the applicant for approval except in cases where the applicant, not the manufacturer, is ultimately responsible for the quality of the products.</p> <p><b>6.4 Approval Tests</b></p> <p><b>6.4.1 General</b> <b>2</b> The test is to be carried out at a laboratory in accordance with <i>ISO 10140-2:2010</i>, and the test record are to be submitted to the Society.</p> <p><b>6.5 Notice of Approval</b></p> <p><b>6.5.1 Notice of Approval</b> When the Society is satisfied with the results of the examination of the documents submitted, the confirmatory survey specified in <b>6.3</b> and the approval test specified in <b>6.4</b>, a “Certificate for Approval” <u>specifying the approval number, date of approval, type, model, and other relevant particulars,</u> is issued by the Society.</p>	<p><b>6.2 Application Procedures</b></p> <p><b>6.2.1 Procedures</b> The appropriate application form (<b>Form 4-12</b>) accompanied by <u>3 copies</u> each of the documents specified in <b>6.2.3</b> is to be submitted to the Society (Head Office).</p> <p><b>6.2.2 Applicant</b> Material manufacturers are to be the applicant for <u>type</u> approval except in cases where the applicant, not the manufacturer, is ultimately responsible for the quality of the products.</p> <p><b>6.4 Approval Tests</b></p> <p><b>6.4.1 General</b> <b>2</b> The test is to be carried out at a laboratory in accordance with <i>ISO 10140-2:2010</i>, and <u>two copies of the test record</u> are to be submitted to the Society.</p> <p><b>6.5 Notice of Approval</b></p> <p><b>6.5.1 Notice of Approval</b> When the Society is satisfied with the results of the examination of the documents submitted, the confirmatory survey specified in <b>6.3</b> and the approval test specified in <b>6.4</b>, a “Certificate for Approval <u>of Airborne Sound Insulation Properties</u>” is issued by the Society.</p>	<p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>6.7 Periodical Examinations</b></p> <p><b>6.7.1 Application for Periodical Examinations</b> 1 Periodical examinations are to be carried out before or on the expiry date of the “Certificate for Approval”.</p> <p><b>6.7.3 Renewal of the Certificate of Approval</b> When the results of the periodical examination are considered acceptable to the Society, the Society issues the “Certificate for Approval” specified 6.5.</p> <p><b>6.7.4 Notice of Renewal</b> 1 The Society issues the “Certificate for Approval” which is valid for five <i>years</i> from the date of completion of the periodical examination when the Society ascertains continuous compliance with the approval conditions through a review of the test report of the periodical examination specified in 6.7.2.</p> <p><b><u>Chapter 7 TYPE APPROVAL OF INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES</u></b></p>	<p><b>6.7 Periodical Examinations</b></p> <p><b>6.7.1 Application for Periodical Examinations</b> 1 Periodical examinations are to be carried out before or on the expiry date of the “Certificate for Approval <u>of Airborne Sound Insulation Properties</u>”.</p> <p><b>6.7.3 Renewal of the Certificate of Approval</b> When the results of the periodical examination are considered acceptable to the Society, the Society issues the “Certificate for Approval <u>of Airborne Sound Insulation Properties</u>” specified 6.5.</p> <p><b>6.7.4 Notice of Renewal</b> 1 The Society issues the “Certificate for Approval <u>of Airborne Sound Insulation Properties</u>” which is valid for five <i>years</i> from the date of completion of the periodical examination when the Society ascertains continuous compliance with the approval conditions through a review of the test report of the periodical examination specified in 6.7.2.</p> <p style="text-align: center;"><b><u>(Newly added)</u></b></p>	<p>Addition of type approval for "INSULATION MATERIALS USED IN CARGO CONTAINMENT SYSTEMS FOR LIQUEFIED GASES" to Chapter 7, Part 5 of the Guidance for the Approval and Type</p>



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Amended	Original	Remarks
<p><b><u>7.1 General</u></b></p> <p><b><u>7.1.1 Scope</u></b></p> <p><u>1 This chapter applies to the tests and inspections for the type approval of insulation materials used in the cargo containment systems specified in N4.19.3-3(1), Part N of the Guidance for the Survey and Construction of Steel Ships. Upon applicant request, this chapter is to apply correspondingly when obtaining type approval for insulation materials used in cargo piping systems.</u></p> <p><u>2 This chapter applies to the tests and inspections for the type approval of insulation materials used in the fuel containment systems specified in 1.1.3-1, Part GF of the Rules for the Survey and Construction of Steel Ships and GF6.4.13-1(1), Part GF of the Guidance for the Survey and Construction of Steel Ships. Upon applicant request, this chapter is to apply correspondingly when obtaining type approval for insulation materials used in fuel piping systems.</u></p> <p><b><u>7.2 Application Procedures</u></b></p> <p><b><u>7.2.1 Procedures</u></b></p> <p>Application for type approval is to be made to the Society (Head Office) using the designated application form (Form 4-10) together with each of the documents specified in 7.2.4.</p>	<p><b><u>(Newly added)</u></b></p> <p><b><u>(Newly added)</u></b> <u>(Newly added)</u></p> <p><b><u>(Newly added)</u></b></p> <p><b><u>(Newly added)</u></b> <u>(Newly added)</u></p>	<p>Approval of Materials and Equipment for Marine Use. (Transfer from Annex 1 of Part N and GF.)</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b><u>7.2.2 Notice of Alterations</u></b>            If major alterations made to the manufacturing process, material composition or other approved items, a notice explaining such alterations with respect to approved items is to be submitted to the Society.</p> <p><b><u>7.2.3 Applicants</u></b>            Material manufacturers are, in principle, to be the applicants for approval except where applicants other than manufacturers are responsible for final product quality.</p> <p><b><u>7.2.4 Documents</u></b>  <u>Documents containing the following information are to be submitted to the Society with the application.</u></p> <ol style="list-style-type: none"> <li><u>(1) Manufacture history and organisation</u></li> <li><u>(2) General description of major manufacturing facilities</u></li> <li><u>(3) Product specifications</u></li> <li><u>(4) Packaging and marks (labels, etc.)</u></li> <li><u>(5) Manufacturing process</u></li> <li><u>(6) Product physical properties assured by manufacturer</u></li> <li><u>(7) Statistical data showing manufacturing variations in the measured values of principal mechanical properties (such as compressive strength, shear strength, etc.), if any</u></li> <li><u>(8) Product storage method</u></li> <li><u>(9) Manufacturing records</u></li> <li><u>(10) Other Society certificate (if any)</u></li> <li><u>(11) Test results of properties specified in 4.19.3-2, Part N of the Rules for the Survey and Construction of Steel Ships and N4.19.3-4, Part N of the Guidance for the Survey and Construction of Steel Ships</u></li> </ol>	<p><b><u>(Newly added)</u></b>  <u>(Newly added)</u></p> <p><b><u>(Newly added)</u></b>  <u>(Newly added)</u></p> <p><b><u>(Newly added)</u></b>  <u>(Newly added)</u></p>	



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Amended	Original	Remarks
<p>submitted to the Society for approval.</p> <p><b><u>7.3 Confirmation of Manufacturing and Quality Control Procedures</u></b></p> <p><b><u>7.3.1 Survey</u></b>  <u>Confirmation surveys for manufacturing and quality control procedures are to be carried out to verify the manufacturer’s ability to produce materials of a stable product quality (facilities, technologies, quality control and quality assurance systems, and manufacturer inspection systems).</u></p> <p><b><u>7.3.2 Omission of Confirmation Survey</u></b>  <u>Confirmation surveys may be omitted when the Society deems such surveys unnecessary as a result of the examination of documents submitted.</u></p> <p><b><u>7.3.3 Survey Items</u></b>  <u>The following items are to be examined.</u>  <u>(1) Manufacturer inspection system, organisation and claim disposal department</u>  <u>(2) Manufacturing and inspection facilities</u>  <u>(3) Quality control and quality assurance systems (3)</u>  <u>Quality control and quality assurance system</u></p> <p><b><u>7.4 Approval Test</u></b></p> <p><b><u>7.4.1 Approval Test</u></b>  <u>1 By using test specimens taken with due regard paid to the actual application procedures, tests to verify the test items</u></p>	<p><u>(Newly added)</u></p> <p><u>(Newly added)</u> <u>(Newly added)</u></p> <p><u>(Newly added)</u> <u>(Newly added)</u></p> <p><u>(Newly added)</u> <u>(Newly added)</u></p> <p><u>(Newly added)</u> <u>(Newly added)</u></p> <p><u>(Newly added)</u> <u>(Newly added)</u></p>	

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><u>given in Table 4.7-1 are to be conducted according to test procedures as specified in the same table or suitable other procedures as approved by the Society, and it is to be verified that the specifications and physical properties established by the manufacturer are complied with.</u></p> <p><u>2 Test items and procedures for approval tests for insulation materials used in cargo containment systems are to be as specified in 4.19.3, Part N of the Rules for the Survey and Construction of Steel Ships and N4.19.3, Part N of the Guidance for the Survey and Construction of Steel Ships according to tank type.</u></p> <p><u>3 Test items and procedures for approval tests for insulation materials used in fuel containment systems are to be as specified in 6.4.13-3, Part GF of the Rules for the Survey and Construction of Steel Ships and N6.4.13-5, Part Gf of the Guidance for the Survey and Construction of Steel Ships according to tank type.</u></p> <p><u>4 In cases where it is deemed necessary by the Society, test items are to be carried out in the presence of a Society surveyor. Prior to the implementation of a test, a test plan is to be submitted to the Society (Head Office). Said test plan is to specify the test location and the acceptance criteria for the characteristics of the test.</u></p>	<p><u>(Newly added)</u></p> <p><u>(Newly added)</u></p> <p><u>(Newly added)</u></p>	

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<b>Table 4.7-1. Test I Items for Insulation Materials</b>		
<u>No.</u>	<u>Test item</u>	<u>Procedure of test</u>
1	<u>Compatibility with the cargo / Fuel</u>	<u>Tensile, compression, shearing, bending test after dipping in the cargo (DIN 53428)</u>
2	<u>Solubility in the cargo / Fuel</u>	<u>Changes in the size and weight of test specimen before and after dipping in the cargo (DIN 53428)</u>
3	<u>Absorption of the cargo / Fuel</u>	<u>Comparison of weight of test specimen or test of water absorbing properties before and after dipping in the cargo (DIN 53428)</u>
4	<u>Shrinkage</u>	<u>ISO 2796, ASTM D 2126</u>
5	<u>Aging</u>	<u>ASTM D756</u>
6	<u>Closed cell content</u>	<u>ISO 4590, ASTM D2856, ASTM D6226</u>
7	<u>Density</u>	<u>ISO 845, ISO 2781, ASTM D1622</u>
8	<u>Mechanical properties</u> • <u>Bending strength</u> • <u>Compression strength</u> • <u>Tensile strength</u> • <u>Shearing strength</u>	<u>ISO 1209, ASTM C 203, ASTM D790</u> <u>ASTM D 695, ASTM D 1621</u> <u>ISO 1926, EN 1607, ASTM D412, ASTM D638, ASTM D1623</u> <u>ISO 1922, ASTM C 273</u>
9	<u>Thermal expansion</u>	<u>ASTM D696, ASTM E228, ASTM E831</u>
10	<u>Abrasion</u>	=
11	<u>Cohesion</u>	<u>ASTM D 1623</u>
12	<u>Thermal conductivity</u>	<u>ISO 8302, JIS A 1412, ASTM C 177, ASTM C 518</u>
13	<u>Resistance to vibration</u>	<u>ISO 10055</u>
14	<u>Resistance to fire and flame spread</u>	<u>JIS A 9511, DIN 4102</u>
15	<u>Resistance to fatigue failure and crack propagation</u>	=
<p><u>Note:</u> Of the test items given above, necessary items are to be selected and tested according to the type of insulation system. However, at least test items 4, 6 (for independent foam material only), 7, 8, 12 and 14 are to be dealt with for all types of insulation systems. In cases where insulation materials are used in cargo containment systems, see N4.19.3-4 to 7, Part N of the Guidance for the Survey and Construction of Steel Ships. In cases where insulation materials are used in the fuel containment systems, See GF6.4.13-1 to 4, Part GF of the Guidance for the Survey and Construction of Steel Ships.</p>		

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b><u>7.4.2 Test Records</u></b>  <u>After completion of tests, manufacturers are to create a test report and submit said report to the Society upon receiving confirmation from a Society surveyor.</u></p> <p><b><u>7.5 Approval</u></b></p> <p><b><u>7.5.1 Certificate</u></b>  <u>When the results of the tests specified in 7.4.1 are confirmed to be appropriate, the Society approves the equipment (hereinafter referred to as “approved equipment”) and issues the relevant approval certificate specifying the approval number, date of approval, type, model, and other relevant particulars.</u></p> <p><b><u>7.5.2 Validity of Approval</u></b>  <u>The certificate specified in 7.5.1 is to be valid until a date not exceeding 5 years from its date of issue. However, when the approval is renewed in accordance with 7.5.3, the new certificate is to be valid until a date not exceeding 5 years from the date of expiry of the existing certificate.</u></p> <p><b><u>7.5.3 Renewal of Approval</u></b>  <u>1 In the case of application for renewal of approval, manufacturers are to submit to the Society the designated application form (Form 4-10) accompanied with the certificate previously issued. Any changes in the specification of the approved equipment are to be described in the application.</u></p>	<p>(Newly added) (Newly added)</p> <p>(Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p>	

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><b>2</b> <u>When the specifications of the approved equipment remain unchanged, the Society approves the renewal of approval and issues a new certificate. Manufacturers who received a new certificate are to return the existing certificate to the Society as soon as possible.</u></p> <p><b><u>7.6 Markings</u></b></p> <p>Markings and packaging are to be as shown in the documents attached to the application for the approval and no changes are to be made without agreement by the Society. Approval numbers are to be marked such a way to clearly indicated the product is approved by the Society.</p> <p><b><u>7.7 Quality Control and Quality Assurance</u></b></p> <p><b><u>7.7.1 General</u></b></p> <p><u>Manufactures are responsible for ensuring the manufacturing process and product quality are in accordance with the same procedures and systems used when surveyed and examined by the Society.</u></p> <p><b><u>7.7.2 Results of Production Tests</u></b></p> <p><u>The results of production tests are to be available for review whenever requested by the Society.</u></p> <p><b><u>7.7.3 Changes in Approved Items</u></b></p> <p><u>Changes in the manufacturing process, material composition and other approved items (including changes of the contents in approved documents) are to be reported to the</u></p>	<p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p>	



Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><u>Society for review. The Society will subsequently inform manufacturers of the results of such reviews.</u></p> <p><b><u>7.8 Periodical Examinations</u></b></p> <p><b><u>7.8.1 Application for Periodical Examination</u></b>  <u>1 Manufacturers of approved materials are to be subjected to periodical examinations at an interval of 5 years.</u>  <u>2 Application for periodical examinations is to be made to the Society using the designated application form (Form 4-10) together with documents describing the Society's approval number, date of issue of the certificate and items altered from the original approved conditions, if any.</u></p> <p><b><u>7.8.2 Tests of Periodical Examination</u></b>  <u>At each periodical examination, the survey items specified in 7.3 and the tests considered necessary by the Society among the test items specified in 7.4 are to be carried out.</u></p> <p><b><u>7.8.3 Renewal of Certificates of Approval</u></b>  <u>When the results of the periodical examination are considered acceptable to the Society, the Society reissues the Certificate of Approval for Materials for Refrigerated Chambers specified 7.5.</u></p>	<p>(Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p>	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b><u>7.9 Revocation of Approval</u></b></p> <p><b><u>7.9.1 Revocation of Approval</u></b>  <u>Approval may be revoked if any of the following cases is found relevant.</u></p> <p>(1) <u>When doubt occurs on the performance of the approved material as the result of an examination of its service record.</u></p> <p>(2) <u>When the manufacturer is not subjected to the periodical examination.</u></p> <p>(3) <u>When the material failed to pass the periodical examination.</u></p> <p>(4) <u>When the manufacturer offers to stop manufacturing the material.</u></p> <p>(5) <u>When the manufacturer requests the withdrawal of approval.</u></p>	<p>(Newly added)</p> <p>(Newly added)</p> <p>(Newly added)</p>	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p align="center"><b>Part 6 MACHINERY</b></p> <p><b><u>Chapter 1 TYPE APPROVAL OF PMS/CBM MANAGEMENT SOFTWARE</u></b></p> <p><b><u>1.1 General</u></b></p> <p><b><u>1.1.1 Scope</u></b></p> <p><b><u>1</u></b> These procedures apply to the tests, examinations, etc. of the computer software required by ships adopting the Planned Machinery Maintenance Scheme (hereinafter referred to as “PMS”) or the Condition Based Maintenance Scheme (hereinafter referred to as “CBM”) in accordance with the requirements given in <b><u>9.1.3-3, Part B of the Rules or B9.1.4-2, Part B of the Guidance.</u></b></p> <p><b><u>2</u></b> The approval of system software developed to manage all internal ship operations is to follow these procedures.</p> <p><b><u>3</u></b> The software used on ships which is not subject to CBM need not comply with 1.3.3.</p> <p><b><u>1.2 Application for Approval</u></b></p> <p><b><u>1.2.1 Application Form</u></b></p> <p>Applicants for software approval are to submit an application form (<b>Form-PMSsoftware</b>) to the Society.</p>	<p align="center"><b>Part 6 MACHINERY</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p> <p align="center"><b>(Newly added)</b></p>	<p>Addition of type approval for " PMS/CBM MANAGEMENT SOFTWARE" to Chapter 1, Part 6 (Transfer from Annex of Part B.)</p>



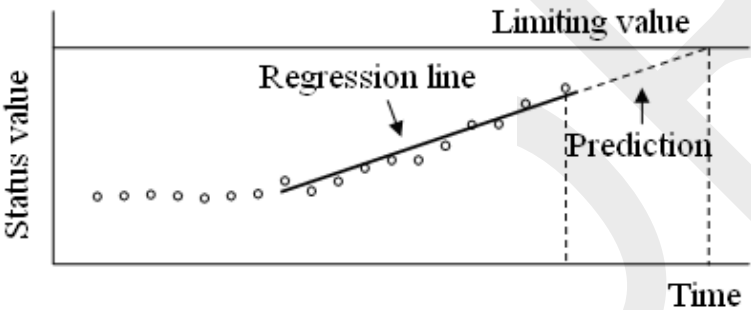
Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p>(2) <u>It is to be capable of specifying the time schedule of maintenance or running hours for each item of machinery and equipment including their parts.</u></p> <p>(3) <u>It is to be capable of displaying a list of at least the following items. The list is to classify the registered machinery, equipment and their parts and to be displayed in a tree structure format, etc.</u></p> <p style="margin-left: 20px;">(a) <u>Names of machinery, equipment and their parts</u></p> <p style="margin-left: 20px;">(b) <u>Maintenance items</u></p> <p style="margin-left: 20px;">(c) <u>Maintenance interval (next inspection date or running hour)</u></p> <p style="margin-left: 20px;">(d) <u>Maintenance schedule (It is to be able to directly input the inspection date or calculate from the maintenance interval)</u></p> <p style="margin-left: 20px;">(e) <u>Person in charge of maintenance</u></p> <p>(4) <u>Maintenance intervals are not, in principle, to exceed five years. Maintenance intervals are to be capable of being displayed on the list of maintenance within a term which is arbitrarily designated.</u></p> <p>(5) <u>In cases where there are maintenance items which expire after the maintenance period, such items are to be easily identified.</u></p> <p><b><u>1.3.2 Maintenance Records Function</u></b></p> <p><u>The software is to have the following maintenance record functions:</u></p> <p>(1) <u>It is to be capable of managing and recording the results of the maintenance conducted by the planned maintenance specified in 1.3.1. The items regarding management and record are to be included the following:</u></p>	<p style="text-align: center;">(Newly added) (Newly added)</p>	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p>(a) <u>Names of machinery, equipment and their parts</u></p> <p>(b) <u>Maintenance items and results (including an exchange of parts)</u></p> <p>(c) <u>Maintenance completion date</u></p> <p>(d) <u>Total running hour</u></p> <p>(e) <u>Next inspection date</u></p> <p>(f) <u>Measurement data (including original design dimensions and allowable tolerance) However, such data is only required in cases where measurements are taken.</u></p> <p>(g) <u>The condition of damage and the repair method in cases where damage was found.</u></p> <p>(2) <u>List of the maintenance items within the designated term is to be displayed. Such lists are to include the name of machinery, equipment and their parts together with the maintenance items and the maintenance completion date.</u></p> <p>(3) <u>Past maintenance records are to be displayed in cases where machinery, equipment and their parts are arbitrarily selected.</u></p> <p><b><u>1.3.3 Condition Monitoring Function</u></b></p> <p><u>1 The software is to have a function for the condition monitoring of machinery, equipment and their parts as necessary. Such condition monitoring is to be capable of analysis such as trend analysis if necessary. In cases where trend analysis is adopted, the following requirements are to be satisfied:</u></p> <p>(1) <u>In cases where measurement data is affected by temperature, running speed, load, etc., the data is to be standardized and trend analysis is to be conducted</u></p>	<p>(Newly added)</p> <p>(Newly added)</p>	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><u>against the index except in those cases where trend analysis is conducted against measurement data obtained during steady operating conditions.</u></p> <p>(2) <u>The limiting parameters of measurement data are to be determined in accordance with the recommended values of the manufacturer or through statistical processing based on baseline data. In cases where such values are determined by the manufacturer through statistical processing, limiting parameters are to be automatically calculated based on accumulated data. However, these values may be determined by other methods deemed appropriate by the Society.</u></p> <p>(3) <u>Trends of measurement data together with relevant limiting values are to be able to be displayed by a simple operation. (See Fig. 1.3.3)</u></p> <p style="text-align: center;">Fig. 1.3.3 Trend Display</p>  <p><u>2 Software may use diagnostic technology such as complex algorithms, machine learning and statistical knowledge obtained from data from machinery, etc. installed</u></p>	<p style="text-align: center;">(Newly added)</p> <p style="text-align: center;">(Newly added)</p>	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><u>on other ships in order to identify the acceptability of continued service for machinery, equipment and components, or whether maintenance is required. The software need not follow machinery manufacturer recommended maintenance instructions or use manufacturer specified limiting parameters; in such cases, however, the software is to be approved in accordance with machinery manufacturer recommendations, industry standards and its usage history on other ships registered by the Society.</u></p> <p><u>3 Maintenance management based on the condition monitoring specified in -1 above is to satisfy the following:</u></p> <p><u>(1) Planned maintenance</u></p> <p><u>(a) Machinery, equipment and their parts are to be capable of being registered apart from those which are periodically during open up examination.</u></p> <p><u>(b) The registration of the machinery, equipment and their parts which apply to condition monitoring are to include the following items:</u></p> <p><u>i) Names of machinery, equipment and their parts</u></p> <p><u>ii) Kind of measured signal</u></p> <p><u>iii) Measurement interval</u></p> <p><u>iv) Limiting value (This value is to be set up for each kind of measured signal)</u></p> <p><u>(2) Measuring process and recording</u></p> <p><u>(a) Measurement date and measurement value are to be recorded.</u></p> <p><u>(b) In cases where open up examinations are conducted, it is to be capable of recording the same results of the maintenance specified in</u></p>	<p>(Newly added)</p>	



Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p style="text-align: center;"><b><u>1.3.2.</u></b></p> <p><b><u>1.4 Administration of Software</u></b></p> <p><b><u>1.4.1 Administration of Revision</u></b> System manufacturers and administrators are to handle any software revisions caused by changes in the system. Specific information related to software revisions are to be verified on main displays or menus.</p> <p><b><u>1.4.2 Administration of Backup</u></b> System manufacturers and administrators are to specify proper procedures for backing up administrated maintenance data.</p> <p><b><u>1.5 Verification Test</u></b> In principle, the Society will conduct verification tests of those functions specified in 1.3 after examining the documents specified in 1.2. Verification tests may be conducted under the conditions that the systems are actually used at either the ship management company or onboard the ship. However, in cases where the relevant functions can be verified by the software which has been submitted, verification tests may be omitted.</p>	<p>(Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p>	

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b><u>1.6 Approval</u></b></p> <p><b><u>1.6.1 Notification of Approval</u></b>            In cases where the documents specified in 1.2 and verification test records specified in 1.5 are considered appropriate, the Society will approve the issue of a new certificate. In cases where the software has a function specified in 1.3.3 or other optional functions, these functions are stated on the certificate.</p> <p><b><u>1.6.2 Term of Validity</u></b>            The term of validity of the “Certificate of Approval” will be 5 <i>years</i> from the date of approval. In cases where renewal of approval is carried out in accordance with 1.6.3, the term of validity will be 5 <i>years</i> from the next day after the expiration date of the previous period of validity.</p> <p><b><u>1.6.3 Renewal of Validity</u></b>            In the case of renewing validity, manufacturers are to submit the Society an application Form along with the previously issued certificate. Changes of specification, if any, are to be described on the application form.</p> <p><b><u>1.6.4 Changes in the Contents of Approval</u></b>  <b>1</b> In the case of specification changes of approved software, applicants are to submit a “Certificate of Approval” (original) and those documents specified in 1.2.2 according to the content of changes together with an application form.  <b>2</b> The Society requires the verification test specified in 1.5 as necessary.</p>	<p>(Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added) (Newly added)</p> <p>(Newly added)</p>	

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p><b>3</b> In cases where the documents specified in -1 and verification test records specified in -2 are considered appropriate, the Society will issue a new certificate.</p> <p><b>4</b> In cases where approval is given for a design with a partial modification, the expiration date will not be renewed in principle.</p> <p><b><u>1.6.5 Revocation of Approval</u></b>            In cases where any of the following is relevant, the Society may revoke its approval and give notice of such revocation to manufacturers.</p> <p>(1) In cases where the approval renewal procedures given in 1.6.3 were not followed.</p> <p>(2) In cases where requests for revocation are made by applicants or manufacturers.</p> <p>(3) In cases where the approved condition was changed without the permission of the Society.</p> <p>(4) In cases where applicants or manufacturers do not pay approval fees.</p> <p style="text-align: right;"><b>(Delete)</b></p> <p><b>(Delete)</b></p> <p><b>(Delete)</b></p> <p><b>(Delete)</b></p>	<p>(Newly added)</p> <p>(Newly added)</p> <p><b>(Newly added)</b></p> <p>(Newly added)</p> <p style="text-align: center;"><b><u>Chapter 1 APPROVAL OF STANDARDIZED DESIGN FOR MACHINERY AND EQUIPMENT</u></b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>            The requirements of this chapter deal with the approval of the drawings and documents which are submitted in advance to the Society as the standardized design</p>	<p>Delete (Transfer from Annex of Part B)</p>

**Amended-Original Requirements Comparison Table**  
**(Review of Guidance for the Approval of Materials and Equipment for Marine Use)**

Amended	Original	Remarks
<p>(Delete)</p> <p>(Delete) (Delete)</p> <p>(Delete) (Delete)</p> <p>(Delete)</p> <p>(Delete) (Delete)</p>	<p>designating the construction, dimensions, materials, specifications, etc. on machinery and equipment required to obtain approval by submitting drawings to the Society in accordance with the requirements of <b>2.1.3, Part B of the Rules for the Survey and Construction of Steel Ships, 2.1.2, Part 2 of the Rules for High Speed Craft, 2.1.2, Part 2 of the Rules for the Survey and Construction of Inland Waterway Ships, 2.3.1-2 of the Rules for Cargo Handling Appliances and 2.1.1 of the Rules for Cargo Refrigerating Installations.</b></p> <p><b>1.2 Application</b></p> <p><b><u>1.2.1 Application Form</u></b>  The manufacturer, who intends to obtain the approval of standardized design, is to submit the appropriate application form (<b>Form 6-1</b>) filled in with necessary data and information to the Society (Head Office).</p> <p><b><u>1.2.2 Drawings and Documents</u></b>  In accordance with the requirements of the rules applicable to the machinery and equipment, drawings and documents, in triplicate, are to be submitted together with the application form specified in 1.2.1.</p> <p><b><u>1.3 Approval</u></b></p> <p><b><u>1.3.1 Notification of Approval</u></b>  The Society, when satisfied upon examination that the drawings and documents fulfill the requirement concerned,</p>	

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Amended	Original	Remarks
<p><b>(Delete)</b> (Delete)</p> <p><b>(Delete)</b> (Delete)</p> <p>(Delete)</p> <p><b>(Delete)</b> (Delete)</p>	<p>will agree on handling these drawings and documents as the standardized design. Then one copy each of the drawings and documents will be returned to the applicant with approval stamp of the Society, approval date, approval number and term of validity indicated on them.</p> <p><b><u>1.3.2 Term of Validity</u></b>  The term of validity of the approval of standardized design will be five <i>years</i> from the date of approval.</p> <p><b><u>1.3.3 Renewal of Approval</u></b>  <b>1</b> The manufacturer, who intends to have a continuation of the approval of standardized design already expired or to make partial modification on the design, is to submit an application in accordance with the requirements of <b>1.2</b> newly.  <b>2</b> In case where approval is given for a design with partial modification, expiration date will not be renewed in principle.</p> <p><b><u>1.3.4 Revocation of Approval</u></b>  In case where either of the following <b>(1)</b> or <b>(2)</b> applies, the Society will revoke the approval of standardized design, and give a notice to the manufacturer.  <b>(1)</b> In association with the implementation or revision of international conventions, laws and regulations, the machinery and equipment for which the standardized design were approved do not deserve the approval any longer.  <b>(2)</b> Serious shortcomings are found in the machinery and equipment manufactured according to the approved standardized design after being installed in ships.</p>	

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>(Delete)</p> <p>(Delete)</p> <p>(Delete)</p> <p><b>Chapter 2 TYPE APPROVAL OF MACHINERY AND EQUIPMENT</b></p> <p><b>2.2 Application</b></p> <p><b>2.2.2 Documents</b></p> <p>1 The drawings and data required by the relevant provisions of the Rules applicable to the machinery and equipment and the data listed (1) through (7) below, are to be submitted together with the application form specified in 2.2.1.                      ((1) to (7) are omitted)</p> <p><b>2.4 Approval Tests</b></p> <p><b>2.4.4 Test Records</b></p> <p>1 The manufacturer is to prepare records of the approval</p>	<p><b><u>1.4 Handling after Approval</u></b></p> <p><b><u>1.4.1 Allocation of Machinery and Equipment to Ships</u></b></p> <p><u>In case where the machinery and equipment for which the standardized design have been approved are allocated to NK-classed ships, the appropriate application form is to be submitted to the Society (Head Office), in triplicate, in place of the drawings and documents required by the rules.</u></p> <p><b>Chapter 2 TYPE APPROVAL OF <u>USE OF</u> MACHINERY AND EQUIPMENT</b></p> <p><b>2.2 Application</b></p> <p><b>2.2.2 Documents</b></p> <p>1 The drawings and data required by the relevant provisions of the Rules applicable to the machinery and equipment and the data listed (1) through (7) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 2.2.1.                      ((1) to (7) are omitted)</p> <p><b>2.4 Approval Tests</b></p> <p><b>2.4.4 Test Records</b></p> <p>1 The manufacturer is to prepare records of the approval</p>	<p></p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>test after completion of the test, to obtain verification by the Society’s attending surveyor and to submit them, to the Society.</p> <p><b>2.5 Approval</b></p> <p><b>2.5.2 Term of Validity</b>  The term of validity of the type approval of machinery and equipment will be five <i>years</i> from the date of approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 2.5.3, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>Chapter 3 APPROVAL OF COEFFICIENT FOR DISCHARGE OF SAFETY VALVES, ETC.</b></p> <p><b>3.2 Application</b></p> <p><b>3.2.2 Documents</b>  The sectional assembly drawing of the safety valves, etc. and the plan for the tests, are to be submitted to the Society together with the application form specified in 3.2.1 above.</p>	<p>test after completion of the test, to obtain verification by the Society’s attending surveyor and to submit them, <u>in triplicate</u>, to the Society.</p> <p><b>2.5 Approval</b></p> <p><b>2.5.2 Term of Validity</b>  The term of validity of the type approval of machinery and equipment will be five <i>years</i> from the date of approval.</p> <p><b>Chapter 3 APPROVAL OF COEFFICIENT FOR DISCHARGE OF SAFETY VALVES, ETC.</b></p> <p><b>3.2 Application</b></p> <p><b>3.2.2 Documents</b>  The sectional assembly drawing of the safety valves, etc. and the plan for the tests, <u>each in triplicate</u>, are to be submitted to the Society together with the application form specified in 3.2.1 above.</p>	<p>due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>3.3 Approval Tests</b></p> <p><b>3.3.2 Test Records</b> The manufacturer is to submit the test records, after completion of the test to the Society (Head Office).</p> <p><b>3.4 Approval</b></p> <p><b>3.4.1 Announcement of Approval</b> The Society, when satisfied upon examination of the drawings and test records submitted in accordance with 3.2.2 and 3.3.2, will issue a certificate of approval specifying the approved <i>K</i> value, put approval stamps on the drawings and test records and return them back to the applicant.</p> <p><b>3.4.2 Term of Validity</b> The term of validity of the approval will be five <i>years</i> from the date of the approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 3.4.3, valid term will be 5 <i>years</i> from the next day after the expiry date of the previous validity.</u></p>	<p><b>3.3 Approval Tests</b></p> <p><b>3.3.2 Test Records</b> The manufacturer is to submit the test records, <u>in triplicate,</u> after completion of the test to the Society (Head Office).</p> <p><b>3.4 Approval</b></p> <p><b>3.4.1 Announcement of Approval</b> The Society, when satisfied upon examination of the drawings and test records submitted in accordance with 3.2.2 and 3.3.2, will issue a certificate of approval specifying the approved <i>K</i> value, put approval stamps on the drawings and test records and return <u>one set of</u> them back to the applicant.</p> <p><b>3.4.2 Term of Validity</b> The term of validity of the approval will be five <i>years</i> from the date of the approval.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>



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(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>Chapter 4    <u>TYPE APPROVAL OF WELDED TYPE PIPE JOINTS</u></b></p> <p><b>4.1 General</b></p> <p><b>4.1.1 Scope</b>            In accordance with the requirements in <b>D12.6.1-1(1)(e)ii</b>, <b>Part D of the Guidance for the Survey and Construction of Steel Ships</b>, the requirements of this chapter apply to tests and inspections for the <u>type approval</u> of pipe joints of a butt welded type and pipe joints of a slip-on sleeve welded type (such as elbows, reducers, tees, bends and sockets, etc.). <u>In cases where this approval is obtained, surveyor attendance at shop tests may be omitted in accordance with the requirements of <b>D12.6.1-1(1)(e)ii</b>, <b>Part D of the Guidance for the Survey and Construction of Steel Ships</b> (hereinafter referred to as “the Rules”).</u></p> <p><b>4.2 Application Procedures</b></p> <p>Manufacturers who intend to obtain approval of use for welded type pipe joints are to submit an application to the Society (branch office concerned) accompanied by the following data.            ((1) and (2) are omitted)</p>	<p><b>Chapter 4    <u>APPROVAL OF USE OF WELDED TYPE PIPE JOINTS</u></b></p> <p><b>4.1 General</b></p> <p><b>4.1.1 Scope</b>            In accordance with the requirements in <b>D12.6.1(1)(e)ii</b>, <b>Part D of the Guidance for the Survey and Construction of Steel Ships</b>, the requirements of this chapter apply to tests and inspections for the <u>approval of the omission of surveyor attendance at tests for pipe joints of a butt welded type and pipe joints of a slip-on sleeve welded type (such as elbows, reducers, tees, bends and sockets, etc.) regardless of the requirements of <b>12.6.1-1, Part D of the Rules for the Survey and Construction of Steel Ships</b> (hereinafter referred to as “the Rules”).</u></p> <p><b>4.2 Application Procedures</b></p> <p>Manufacturers who intend to obtain approval of use for welded type pipe joints are to submit an application to the Society (branch office concerned) accompanied by <u>three sets of the following data.</u>            ((1) and (2) are omitted)</p>	<p>Change in description</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p><b>4.3 Approval Tests</b></p> <p><b>4.3.2 Approval Tests</b></p> <p><b>4.4 Test Records</b></p> <p>In cases where the approval tests specified in preceding 4.3 are carried out, the manufacturer is to prepare records of the approval test upon completion of the test, obtain verification by the Society’s attending surveyor and submit them, to the Society (branch office concerned).</p> <p><b>4.5 Notification of Approval and Terms of Validity</b></p> <p><b>4.5.1 Notification of Approval and Terms of Validity</b></p> <p>1 The Society (branch office concerned) is to <u>consider the results of confirmation and approval tests for pipe joints of a butt welded type and pipe joints of a slip-on sleeve welded type, and if deemed appropriate, issue the corresponding certificate of approval specifying the approval number, date of approval, type, model, and other relevant particulars, to the manufacturer.</u></p> <p>2 The valid term of approval in the preceding -1 is <u>5 years from the date of the approval. In case when the renewal of approval is carried out in accordance with the requirements in -3 and -5, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p>	<p><b>4.3 Approval Tests</b></p> <p><b>4.3.2 <u>Manufacturing Process Approval Tests</u></b></p> <p><b>4.4 Test Records</b></p> <p>In cases where the approval tests specified in preceding 4.3 are carried out, the manufacturer is to prepare records of the approval test upon completion of the test, obtain verification by the Society’s attending surveyor and submit them, <u>in triplicate</u>, to the Society (branch office concerned).</p> <p><b>4.5 Notification of Approval and Terms of Validity</b></p> <p><b>4.5.1 Notification of Approval and Terms of Validity</b></p> <p>1 The Society (branch office concerned) is to <u>grant manufacturers permission to carry out tests for pipe joints of a butt welded type and pipe joints of a slip-on sleeve welded type without a Society surveyor being present in cases where it considers the results of confirmation and approval tests appropriate, and to send the manufacturer the corresponding certificate of approval.</u></p> <p>2 The valid term of approval in the preceding -1 is <u>5 years.</u></p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p> <p>Change in description</p>



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<p><b>5.2 Approval</b></p> <p><b>5.2.1 Approval</b>  The manufacturer intending to obtain the approval of the <u>manufacturing process</u> of boilers or Group 1 pressure vessels is to submit the appropriate application form (<b>Form 6-11</b>) together with following documents to the Society:  ((1) to (5) are omitted)</p> <p><b>5.2.2 Confirmation of Manufacturing and Quality Control Procedures</b>  For the approval of <u>manufacturing process</u> of boilers and Group 1 pressure vessels, the confirmation survey is to be carried out on the following items:  <u>((1) to (3) are omitted)</u></p> <p><b>5.3 Certificate</b>  Where the results of the survey are considered appropriate for manufacturing the products, the Society will issue a certificate <u>of approval specifying the approval number, date of approval, type, model, and other relevant particulars, to the manufacturer.</u></p> <p><b>5.4 Validity of Approval</b></p> <p><b>5.4.1 Validity of Approval</b>  <b>1</b> The valid term of approval in the preceding 5.3 will be <u>five years from the date of the approval. In case when the renewal of approval is carried out in accordance with the</u></p>	<p><b>5.2 Approval</b></p> <p><b>5.2.1 Approval</b>  The manufacturer intending to obtain the approval of the manufacturing boilers or Group 1 pressure vessels is to submit the appropriate application form (<b>Form 6-11</b>) together with following documents to the Society:  ((1) to (5) are omitted)</p> <p><b>5.2.2 Confirmation of Manufacturing and Quality Control Procedures</b>  For the approval of manufacturing boilers and Group 1 pressure vessels, the confirmation survey is to be carried out on the following items:  <u>((1) to (3) are omitted)</u></p> <p><b>5.3 Certificate</b>  Where the results of the survey are considered appropriate for manufacturing the products, the Society will issue a certificate <u>for approval of manufacturing the products.</u></p> <p><b>5.4 Validity of Approval</b></p> <p><b>5.4.1 Validity of Approval</b>  <b>1</b> The valid term of approval in the preceding 5.3 will be <u>five years.</u></p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Change in description</p> <p>Change in description</p>

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<p><u>requirements in -2 and -3, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>Chapter 6      <u>TYPE APPROVAL OF PLASTIC PIPES</u></b></p> <p><b>6.4 Approval Tests</b></p> <p>The approval tests are to be carried out in the presence of the Society's surveyor by the method under the testing standard specified in 6.9 or the method considered to be equivalent by the Society. However, when tests are carried out by the authorized organization or any organization considered appropriate by the Society, those on testing items other than strength test, electric conductivity test, heat dependence test of material, flame spread test and surface flammability test and fire endurance test as well as smoke generation and toxicity test may be carried out in the absence of the Society's surveyor.</p> <p><b>6.5 Notification of Approval</b></p> <p>When the Society considers the product on which the approval is requested has sufficient property for piping system for ships by the results of examination of documents and factory inspection, the Certificate of Approval <u>specifying the approval number, date of approval, type, model, and other relevant particulars,</u> is issued by the Society. The Certificate is valid for five <i>years</i> from the date of the approval. In case when the renewal of</p>	<p><b>Chapter 6      <u>APPROVAL OF USE OF PLASTIC PIPES</u></b></p> <p><b>6.4 Approval Tests <u>for Process of Manufacture</u></b></p> <p>The approval tests <u>for process of manufacture</u> are to be carried out in the presence of the Society's surveyor by the method under the testing standard specified in 6.9 or the method considered to be equivalent by the Society. However, when tests are carried out by the authorized organization or any organization considered appropriate by the Society, those on testing items other than strength test, electric conductivity test, heat dependence test of material, flame spread test and surface flammability test and fire endurance test as well as smoke generation and toxicity test may be carried out in the absence of the Society's surveyor.</p> <p><b>6.5 Notification of Approval</b></p> <p>When the Society considers the product on which the approval is requested has sufficient property for piping system for ships by the results of examination of documents and factory inspection, the Certificate of Approval is issued by the Society. The Certificate is valid for five <i>years</i>.</p>	<p>Terminology alignment</p> <p>Change in description</p>

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<p><u>approval is carried out in accordance with the requirements in 6.8.1, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>6.8 Continuance or Retraction of Approval</b></p> <p><b>6.8.1 Procedures for Continuance of Approval</b> The applicant, when he intends to continue the approval of plastic pipes, is to submit the appropriate application form (<b>Form 6-5</b>) (in case where omission of periodical test is desired, the Application for Omission of Periodical Test describing the reasons) to the Society (Head Office). In either case, these documents are to be accompanied by the past records on the product and records of shop tests, (if manufacturing plants are located in two or more Survey Offices, additional copies for such extra offices are to be provided).</p> <p><b>6.9 Testing Procedures and Criteria</b></p> <p><b>6.9.1 Criteria for Approval Test</b></p> <p>Table 6.6 Requirements and Criteria of Approval Test of Plastic Pipes (Table is omitted.)</p>	<p><b>6.8 Continuance or Retraction of Approval</b></p> <p><b>6.8.1 Procedures for Continuance of Approval</b> The applicant, when he intends to continue the approval of plastic pipes, is to submit the appropriate application form (<b>Form 6-5</b>) (in case where omission of periodical test is desired, the Application for Omission of Periodical Test describing the reasons) to the Society (Head Office). In either case, these documents are to be accompanied by the past records on the product and records of shop tests, <u>each in duplicate (one each for the Head Office and Survey Office, however, if manufacturing plants are located in two or more Survey Offices, additional copies for such extra offices are to be provided).</u></p> <p><b>6.9 Testing Procedures and Criteria</b></p> <p><b>6.9.1 Criteria for Approval Test <u>for Process of Manufacture</u></b></p> <p>Table 6.6 Requirements and Criteria of Approval Test <u>for Process of Manufacture</u> of Plastic Pipes (Table is omitted.)</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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<p><b>Chapter 7    <u>TYPE</u> APPROVAL OF VENTING SYSTEMS AND RELATED EQUIPMENT FOR OIL TANKERS</b></p> <p><b>7.2    Application Procedure</b></p> <p><b>7.2.1    Application Form for Approval</b> Those desiring approval for venting systems and related equipment for oil tankers are requested to submit the appropriate application form (<b>Form 6-6</b>) filled in with necessary data and information to the Society.</p> <p><b>7.2.3    Data to be Submitted</b> The data given in the following <b>(1)</b> through <b>(9)</b> are to be submitted together with the Application Form referred to in 7.2.1. (1) to (9) are omitted)</p> <p><b>7.4    Approval Test</b></p> <p><b>7.4.4    Record of Test</b> <b>1</b> After completion of the approval test, the manufacturer is to produce a record of the approval test and is to submit to the Society upon receiving confirmation by the surveyor of the Society.</p>	<p><b>Chapter 7    APPROVAL OF VENTING SYSTEMS AND RELATED EQUIPMENT FOR OIL TANKERS</b></p> <p><b>7.2    Application Procedure</b></p> <p><b>7.2.1    Application Form for Approval</b> Those desiring approval for venting systems and related equipment for oil tankers are requested to submit <u>a single copy of</u> the appropriate application form (<b>Form 6-6</b>) filled in with necessary data and information to the Society.</p> <p><b>7.2.3    Data to be Submitted</b> <u>Three copies of</u> the data given in the following <b>(1)</b> through <b>(9)</b> are to be submitted together with the Application Form referred to in 7.2.1. (1) to (9) are omitted)</p> <p><b>7.4    Approval Test</b></p> <p><b>7.4.4    Record of Test</b> <b>1</b> After completion of the approval test, the manufacturer is to produce a record of the approval test and is to submit <u>three copies</u> to the Society upon receiving confirmation by the surveyor of the Society.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p><b>7.5 Approval</b></p> <p><b>7.5.1 Notification of Approval</b>                      The Society grants approval for eliminating a part of the test specified in 7.4 against venting systems and related equipment for oil tankers as deemed appropriate in accordance with data submitted according to the requirement in 7.2 through 7.4 and on reports of the surveyor. In this case, the “<u>Certificate of Approval</u>” is published including the approval number, approval date, approval items, approval conditions etc. and, at the same time, among those drawings and documents submitted in accordance with the requirements in 7.2.3 and 7.4.4, which the Society deems necessary, a seal of approval is stamped and returned to the applicant.</p> <p><b>7.5.2 Period of Validity</b>                      1 The valid term of approval in accordance with the requirements in this chapter <u>will be 5 years from the date of the approval. In case when the renewal of approval is carried out in accordance with the requirements in 7.5.3, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>7.5.3 Changes in the Contents of Approval</b>                      1 Manufacturers desiring continued application of the requirements in this chapter against equipment which have exceeded the period of validity or have undergone changes in the content of approval are to submit the appropriate application form (Form 6-7) and are to proceed with the application process by the following requirements in 7.2.</p>	<p><b>7.5 Approval</b></p> <p><b>7.5.1 Notification of Approval</b>                      The Society grants approval for eliminating a part of the test specified in 7.4 against venting systems and related equipment for oil tankers as deemed appropriate in accordance with data submitted according to the requirement in 7.2 through 7.4 and on reports of the surveyor. In this case, the “<u>Notice of Approval</u>” is published including the approval number, approval date, approval items, approval conditions etc. and, at the same time, among those drawings and documents submitted in accordance with the requirements in 7.2.3 and 7.4.4, which the Society deems necessary, a seal of approval is stamped and returned to the applicant.</p> <p><b>7.5.2 Period of Validity</b>                      The period of validity of approval in accordance with the requirements in this chapter <u>is not to exceed 5 years from the date of approval.</u></p> <p><b>7.5.3 Changes in the Contents of Approval</b>                      1 Manufacturers desiring continued application of the requirements in this chapter against equipment which have exceeded the period of validity or have undergone changes in the content of approval are to submit <u>a copy of</u> the appropriate application form (Form 6-7) and are to proceed with the application process by the following requirements in 7.2.</p>	<p>Terminology alignment</p> <p>Change in description</p> <p>Terminology alignment</p>



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<p><b>7.7 Additional Requirements for Equipment Manufactured <u>Outside Japan</u></b></p> <p><b>7.7.1 General</b> As a rule, even though given equipment are manufactured <u>outside Japan</u>, they are still to be in accordance with the requirements in 7.2 through 7.6. However, where this is acknowledged as being difficult by the Society, the equipment may be in accordance with the requirements in 7.7 of this section.</p> <p><b>7.7.2 Approval Application</b> 2 Certificates <u>of approval</u> and performance records published by government organizations and ship classification societies <u>outside Japan that are</u> recognized by the Society are to be submitted for the equipment.</p> <p style="text-align: center;"><b>Chapter 8    <u>TYPE</u> APPROVAL OF RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>8.1 General</b></p> <p><b>8.1.1 General</b> 1 The requirements in this chapter apply to the <u>type</u> approval for the following (1) and (2). (1) <u>Type</u> approval of reciprocating internal combustion engines required by 2.1.1-3 and 2.6.1-3, Part D of the</p>	<p><b>7.7 Additional Requirements for Equipment Manufactured <u>Overseas</u></b></p> <p><b>7.7.1 General</b> As a rule, even though given equipment are manufactured <u>overseas</u>, they are still to be in accordance with the requirements in 7.2 through 7.6. However, where this is acknowledged as being difficult by the Society, the equipment may be in accordance with the requirements in 7.7 of this section.</p> <p><b>7.7.2 Approval Application</b> 2 Certificates and performance records published by <u>foreign</u> government organizations and <u>foreign</u> ship classification societies recognized by the Society are to be submitted for the equipment.</p> <p style="text-align: center;"><b>Chapter 8    <u>APPROVAL OF USE OF</u> RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>8.1 General</b></p> <p><b>8.1.1 General</b> 1 The requirements in this chapter apply to the approval <u>of use</u> for the following (1) and (2). (1) <u>Approval of use</u> of reciprocating internal combustion engines required by 2.1.1-3 and 2.6.1-3, Part D of the</p>	<p>Change in description</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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<p><b>Rules for the Survey and Construction of Steel Ships, 2.1.1-2, Part 9 of the Rules for High Speed Craft as well as 2.1.1-2 and 2.6.1-3, Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships; and</b></p> <p>(2) Type approval of gas-fuelled engines required by 4.1, Annex 1.1.3-3, Part GF or 5.1, Annex 16.1.1-3, Part N of the Rules for the Survey and Construction of Steel Ships.</p> <p>7 In applying the procedures for <u>type approval</u> specified in this Chapter, reference is to be made to Fig. 6.8-2.</p> <p><b>8.2 Application and Approval of Submitted Documents</b></p> <p><b>8.2.2 Drawings and Data</b></p> <p>3 In addition to the drawings and data required by -1, where considered necessary, the Society may request further drawings and data to be submitted. This may include details or evidence of existing <u>type approval</u> or proposals for a testing programme carried out in accordance with this Chapter.</p> <p>4 In addition to those required by -1 to -3 above, those listed in the following (1) to (6) below, are to be submitted for the purpose of confirming whether the manufacturing facility (including production and assembly lines, machining units, special tools and devices, assembly and testing rigs as well as all lifting and transportation devices) is equipped in a way which allows it to consistently produce engines and relevant engine components of a stable quality in accordance</p>	<p><b>Rules for the Survey and Construction of Steel Ships, 2.1.1-2, Part 9 of the Rules for High Speed Craft as well as 2.1.1-2 and 2.6.1-3, Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships; and</b></p> <p>(2) <u>Approval of use</u> of gas-fuelled engines required by 4.1, Annex 1.1.3-3, Part GF or 5.1, Annex 16.1.1-3, Part N of the Rules for the Survey and Construction of Steel Ships.</p> <p>7 In applying the procedures for <u>approval of use</u> specified in this Chapter, reference is to be made to Fig. 6.8-2.</p> <p><b>8.2 Application and Approval of Submitted Documents</b></p> <p><b>8.2.2 Drawings and Data</b></p> <p>3 In addition to the drawings and data required by -1, where considered necessary, the Society may request further drawings and data to be submitted. This may include details or evidence of existing <u>approval of use</u> or proposals for a testing programme carried out in accordance with this Chapter.</p> <p>4 In addition to those required by -1 to -3 above, those listed in the following (1) to (6) below, <u>each in triplicate</u>, are to be submitted for the purpose of confirming whether the manufacturing facility (including production and assembly lines, machining units, special tools and devices, assembly and testing rigs as well as all lifting and transportation devices) is equipped in a way which allows it to consistently produce engines and relevant engine components of a stable</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>with required standards. ((1) to (7) are omitted)</p> <p><b>8.6 Handling after Approval</b></p> <p><b>8.6.2 Term of Validity</b> The term of validity of the <u>type</u> approval will be five <i>years</i> from the date of approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 8.6.4, valid term will be 5 <i>years</i> from the next day after the expiry date of the previous validity.</u></p> <p><b>8.6.4 Renewal of Approval</b> <b>1</b> The manufacturer, who intends to have a continuation of the <u>type</u> approval already expired or to make partial technical modifications of the engine, is to submit an application in accordance with the requirements of 8.2.1 newly. In this case, in lieu of the data required by 8.2.2, the drawings and data for reference specified in the following (1) or (2) are to be submitted.</p> <p>(1) The submission of modified documents or new documents with substantive modifications replacing former documents compared to the previous submission(s) for <u>type</u> approval; or</p> <p>(2) A declaration that no substantive modifications have been applied since the last <u>type</u> approval issued.</p> <p style="text-align: center;">Fig. 6.8-2 Documents Flow for <u>Type</u> Approval of Reciprocating Internal Combustion Engines (Figure is omitted)</p>	<p>quality in accordance with required standards. ((1) to (7) are omitted)</p> <p><b>8.6 Handling after Approval</b></p> <p><b>8.6.2 Term of Validity</b> The term of validity of the approval will be five <i>years</i> from the date of approval.</p> <p><b>8.6.4 Renewal of Approval</b> <b>1</b> The manufacturer, who intends to have a continuation of the approval already expired or to make partial technical modifications of the engine, is to submit an application in accordance with the requirements of 8.2.1 newly. In this case, in lieu of the data required by 8.2.2, the drawings and data for reference specified in the following (1) or (2) are to be submitted.</p> <p>(1) The submission of modified documents or new documents with substantive modifications replacing former documents compared to the previous submission(s) for <u>design</u> approval; or</p> <p>(2) A declaration that no substantive modifications have been applied since the last <u>design</u> approval issued.</p> <p style="text-align: center;">Fig. 6.8-2 Documents Flow for Approval of <u>Use</u> of Reciprocating Internal Combustion Engines (Figure is omitted)</p>	<p>Change in description</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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<p><b>Chapter 9    <u>TYPE</u> APPROVAL OF MECHANICAL JOINTS</b></p>	<p><b>Chapter 9    APPROVAL OF <u>USE OF</u> MECHANICAL JOINTS</b></p>	<p>Terminology alignment</p>
<p><b>9.1 General</b></p>	<p><b>9.1 General</b></p>	
<p><b>9.1.1 Scope</b> The requirements of this chapter apply to testing and inspection for <u>type</u> approval of mechanical joints in accordance with the requirements of <b>12.3.3-2, Part D of Rules for the Survey and Construction of Steel Ships</b>.</p>	<p><b>9.1.1 Scope</b> The requirements of this chapter apply to testing and inspection for approval of <u>use of</u> mechanical joints in accordance with the requirements of <b>12.3.3-2, Part D of Rules for the Survey and Construction of Steel Ships</b>.</p>	<p>Terminology alignment</p>
<p><b>9.2 Application</b></p>	<p><b>9.2 Application</b></p>	
<p><b>9.2.1 Application Form</b> The manufacturer, who intends to obtain the <u>type</u> approval, is to submit the appropriate application form (<b>Form 6-9</b>) filled in with necessary data and information to the Society (Head Office).</p>	<p><b>9.2.1 Application Form</b> The manufacturer, who intends to obtain the approval of <u>use</u>, is to submit the appropriate application form (<b>Form 6-9</b>) filled in with necessary data and information to the Society (Head Office).</p>	<p>To delete the specification of the number of copies due to digitization</p>
<p><b>9.2.2 Documents</b> <b>1</b> The documents listed <b>(1)</b> through <b>(9)</b> below, are to be submitted together with the application form specified in <b>9.2.1</b>. ((1) to (9) are omitted) <b>2</b> Notwithstanding the requirements in -1 above, submission of part or all of the reference may be omitted if the manufacturer had previous record of obtaining the <u>type</u> approval of the Society in the past, and the duplicated data are included therein.</p>	<p><b>9.2.2 Documents</b> <b>1</b> The documents listed <b>(1)</b> through <b>(9)</b> below, <u>each in triplicate</u>, are to be submitted together with the application form specified in <b>9.2.1</b>. ((1) to (9) are omitted) <b>2</b> Notwithstanding the requirements in -1 above, submission of part or all of the reference may be omitted if the manufacturer had previous record of obtaining the approval of the Society in the past, and the duplicated data are included therein.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>9.3 Approval Tests</b></p> <p><b>9.3.2 Details of Tests</b>                      In the approval tests of mechanical joints, the following items (1) through (9) as deemed necessary by the Society are to be included according to <b>Table 6.9-1</b> :                      ((1) to (5) are omitted)                      (6) Fire endurance test                      ((a) to (h) are omitted)                      (i) Where thermal insulation is acceptable as a means of providing fire resistance, following requirements apply:                      (i) to iii) are omitted)                      iv) A service restriction is to be stated on the <u>Certificate of approval</u> that the mechanical joints are to be fitted with thermal insulation during the installation in cases where the mechanical joints are used where fire resistance is required, unless mechanical joints are delivered already fitted with thermal insulation before installation.                      ((7) to (9) are omitted)</p> <p><b>9.4 Approval</b></p> <p><b>9.4.1 Test Records</b>                      The manufacturer is to prepare records of the approval test after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, to the Society.</p>	<p><b>9.3 Approval Tests</b></p> <p><b>9.3.2 Details of Tests</b>                      In the approval tests of mechanical joints, the following items (1) through (9) as deemed necessary by the Society are to be included according to <b>Table 6.9-1</b> :                      ((1) to (5) are omitted)                      (6) Fire endurance test                      ((a) to (h) are omitted)                      (i) Where thermal insulation is acceptable as a means of providing fire resistance, following requirements apply:                      (i) to iii) are omitted)                      iv) A service restriction is to be stated on the <u>type approval certificate</u> that the mechanical joints are to be fitted with thermal insulation during the installation in cases where the mechanical joints are used where fire resistance is required, unless mechanical joints are delivered already fitted with thermal insulation before installation.                      ((7) to (9) are omitted)</p> <p><b>9.4 Approval</b></p> <p><b>9.4.1 Test Records</b>                      The manufacturer is to prepare records of the approval test after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, <u>in triplicate</u>, to the Society.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>9.4.3 Renewal of Approval</b></p> <p>1 The valid term of approval in the preceding 9.4.2 will be <u>5 years from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in 2 and 4, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p>2 In case where renewal of validity is intended, the manufacturer is to submit a copy of the existing certificate <u>of approval</u> in accordance with the requirements of 9.2 newly. In this case, the data required per 9.2 may be limited to the portion subjected to modification only.</p> <p><b>9.4.4 Revocation of Approval</b></p> <p>In case where either of the following (1) through (4) applies, the Society will revoke the type approval of machinery and equipment, and give notice to the manufacturer.</p> <p>(1) In association with the implementation or revision of international conventions, laws, and regulations, the equipment for which the approval was granted do not deserve the approval any longer.</p> <p>(2) In case where the validity of approval is overdue and no application for the renewal of the approval is submitted.</p> <p>(3) When serious shortcomings are found in structure or quality of the equipment already <u>type approved</u> after being installed ships.</p> <p>(4) When an applications for revocation is made by the manufacturer.</p>	<p><b>9.4.3 Renewal of Approval</b></p> <p>1 The valid term of approval in the preceding 9.4.2 will be 5 years.</p> <p>2 In case where renewal of validity is intended, the manufacturer is to submit a copy of the existing certificate in accordance with the requirements of 9.2 newly. In this case, the data required per 9.2 may be limited to the portion subjected to modification only.</p> <p><b>9.4.4 Revocation of Approval</b></p> <p>In case where either of the following (1) through (4) applies, the Society will revoke the type approval of machinery and equipment, and give notice to the manufacturer.</p> <p>(1) In association with the implementation or revision of international conventions, laws, and regulations, the equipment for which the approval was granted do not deserve the approval any longer.</p> <p>(2) In case where the validity of approval is overdue and no application for the renewal of the approval is submitted.</p> <p>(3) When serious shortcomings are found in structure or quality of the equipment already approved after being installed ships.</p> <p>(4) When an applications for revocation is made by the manufacturer.</p>	<p>Change in description</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>Chapter 10 TYPE APPROVAL OF CRANKCASE EXPLOSION RELIEF VALVES FOR RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>10.1 General</b></p> <p><b>10.1.1 Scope</b> 1 The requirements in this Chapter apply to testing and inspection for <u>type</u> approval of crankcase explosion relief valves for reciprocating internal combustion engines in accordance with the requirements of 2.4.3 Part D of the Rules for the Survey and Construction of Steel Ships.</p> <p><b>10.2 Application</b></p> <p><b>10.2.1 Application Form</b> The manufacturer, who intends to obtain the <u>type</u> approval, is to submit the appropriate application form (<b>Form 6-10</b>) filled in with necessary data and information to the Society (Head office).</p> <p><b>10.2.2 Documents</b> The documents listed (1) through (7) below, are to be submitted together with the application form specified in 10.2.1. (1) to (7) are omitted)</p>	<p><b>Chapter 10 APPROVAL OF USE OF CRANKCASE EXPLOSION RELIEF VALVES FOR RECIPROCATING INTERNAL COMBUSTION ENGINES</b></p> <p><b>10.1 General</b></p> <p><b>10.1.1 Scope</b> 1 The requirements in this Chapter apply to testing and inspection for approval <u>of use</u> of crankcase explosion relief valves for reciprocating internal combustion engines in accordance with the requirements of 2.4.3 Part D of the Rules for the Survey and Construction of Steel Ships.</p> <p><b>10.2 Application</b></p> <p><b>10.2.1 Application Form</b> The manufacturer, who intends to obtain the approval <u>of use</u>, is to submit the appropriate application form (<b>Form 6-10</b>) filled in with necessary data and information to the Society (Head office).</p> <p><b>10.2.2 Documents</b> The documents listed (1) through (7) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 10.2.1. (1) to (7) are omitted)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>10.3 Approval Tests</b></p> <p><b>10.3.5 Test Records</b>                      The manufacturer is to prepare records of the approval test including the following information and documents after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, to the Society.                      ((1) to (7) are omitted)</p> <p><b>10.4 Approval</b></p> <p><b>10.4.2 Renewal of Approval</b>                      1 The valid term of approval in the preceding 10.4.1 will be <u>5 years from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in 2 and 4, valid term will be 5 years from the next day after the expiry date of the previous validity.</u>                      2 In case where renewal of validity is intended, the manufacturer is to submit a copy of the existing certificate of <u>approval</u> in accordance with the requirements of 10.2 newly. In this case, the data required per 10.2 may be limited to the portion subjected to modification only.</p>	<p><b>10.3 Approval Tests</b></p> <p><b>10.3.5 Test Records</b>                      The manufacturer is to prepare records of the approval test including the following information and documents after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, <u>in triplicate</u>, to the Society.                      ((1) to (7) are omitted)</p> <p><b>10.4 Approval</b></p> <p><b>10.4.2 Renewal of Approval</b>                      1 The valid term of approval in the preceding 10.4.1 will be 5 years.                      2 In case where renewal of validity is intended, the manufacturer is to submit a copy of the existing certificate in accordance with the requirements of 10.2 newly. In this case, the data required per 10.2 may be limited to the portion subjected to modification only.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p><b>Chapter 11 TYPE APPROVAL FOR EXHAUST DRIVEN TURBOCHARGERS</b></p> <p><b>11.2 Application</b></p> <p><b>11.2.2 Documents</b> The drawings and data required by 2.1.3-1(1) and (2), Part D of the Rules for the Survey and Construction of Steel Ships applicable to the turbocharger which is intended for <u>type</u> approval as well as the data listed in (1) through (6) below, are to be submitted together with the application form specified in 11.2.1. (1) to (6) are omitted)</p> <p><b>11.4 Approval Tests</b></p> <p><b>11.4.2 Details of Tests</b> 1 Turbochargers for any speed engines are to be subjected to at least 500 load cycles (idle - full load - idle) at the limits of their operation. However, this test may be waived if the turbocharger together with the engine is subjected to this kind of low cycle testing under the <u>type</u> approval of reciprocating internal combustion engines in Chapter 8, Part 6. The suitability of the turbocharger for such kind of operation is to be stated in advance by the manufacturer.</p>	<p><b>Chapter 11 APPROVAL OF USE FOR EXHAUST DRIVEN TURBOCHARGERS</b></p> <p><b>11.2 Application</b></p> <p><b>11.2.2 Documents</b> The drawings and data required by 2.1.3-1(1) and (2), Part D of the Rules for the Survey and Construction of Steel Ships applicable to the turbocharger which is intended for approval as well as the data listed in (1) through (6) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 11.2.1. (1) to (6) are omitted)</p> <p><b>11.4 Approval Tests</b></p> <p><b>11.4.2 Details of Tests</b> 1 Turbochargers for any speed engines are to be subjected to at least 500 load cycles (idle - full load - idle) at the limits of their operation. However, this test may be waived if the turbocharger together with the engine is subjected to this kind of low cycle testing under the <u>approval of use</u> of reciprocating internal combustion engines in Chapter 8, Part 6. The suitability of the turbocharger for such kind of operation is to be stated in advance by the manufacturer.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
(Review of Guidance for the Approval of Materials and Equipment for Marine Use)

Amended	Original	Remarks
<p><b>11.5 Approval</b></p> <p><b>11.5.2 Term of Validity</b> The term of validity of the approval will be five <i>years</i> from the date of approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 2 and 4, valid term will be 5 <i>years</i> from the next day after the expiry date of the previous validity.</u></p> <p><b>Chapter 12 <u>TYPE APPROVAL OF WELDED TYPE PIPE JOINTS UNDER SPECIAL REQUIREMENTS</u></b></p> <p><b>12.1 General</b></p> <p><b>12.1.1 Scope</b> In accordance with the requirements in D12.6.1-1(1)(a), Part D of the Guidance for the Survey and Construction of Steel Ships (hereinafter referred to as “the Guidance”), N5.12.1-1(5), Part N of the Guidance, Table S5.4.1-2, Part S of the Guidance, the requirements of this chapter apply to the tests and inspections, etc. for the <u>type approval</u> for pipe joints of a butt welded type and pipe joints of a slip-on sleeve welded type (such as elbows, reducers, tees, bends and sockets, etc.). <u>In cases where this approval is obtained, materials complying with international or national standards such as ISO, JIS, etc. can be used, and surveyor attendance at shop tests may be omitted in accordance with</u></p>	<p><b>11.5 Approval</b></p> <p><b>11.5.2 Term of Validity</b> The term of validity of the approval will be five <i>years</i> from the date of approval.</p> <p><b>Chapter 12 <u>APPROVAL OF USE OF WELDED TYPE PIPE JOINTS UNDER SPECIAL REQUIREMENTS</u></b></p> <p><b>12.1 General</b></p> <p><b>12.1.1 Scope</b> In accordance with the requirements in D12.6.1-1(1)(a), Part D of the Guidance for the Survey and Construction of Steel Ships (hereinafter referred to as “the Guidance”), N5.12.1-1(5), Part N of the Guidance, Table S5.4.1-2, Part S of the Guidance, the requirements of this chapter apply to the tests and inspections, etc. for the approval <u>of use</u> for pipe joints of a butt welded type and pipe joints of a slip-on sleeve welded type (hereinafter referred to as “pipe joints”) <u>made of materials complying with international or national standards such as ISO, JIS, etc.</u></p>	<p>Change in description</p> <p>Terminology alignment</p> <p>Change in description</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><u>the requirements of D12.6.1-1(1)(e)ii), Part D of the Guidance for the Survey and Construction of Steel Ships.</u></p> <p><b>12.2 Approval Application</b></p> <p><b>12.2.1 Approval Application Form</b> Manufacturers who apply for approval are to submit an application form filled in with the required items to the Society (Head Office).</p> <p><b>12.2.2 Data to be Submitted</b> 1 The reference data listed in (1) through (9) below, are to be submitted together with the application form specified in 12.2.1. (1) to (9) are omitted)</p> <p><b>12.4 Approval Tests</b></p> <p><b>12.4.5 Test Reports</b> 1 Manufacturers are to prepare test reports upon completion of tests, obtain the surveyor’s signature thereon, and submit them, to the Society (Head Office).</p> <p><b>12.5 Approval Tests</b></p> <p><b>12.5.3 Renewal of Approval</b> 1 In the case of an application for renewal of approval, the applicant is to submit an application form as well as the “Certificate of Approval” and actual manufacturing record</p>	<p><b>12.2 Approval Application</b></p> <p><b>12.2.1 Approval Application Form</b> Manufacturers who apply for approval are to submit <u>a single copy of an</u> application form filled in with the required items to the Society (Head Office).</p> <p><b>12.2.2 Data to be Submitted</b> 1 The reference data listed in (1) through (9) below, <u>three copies each</u>, are to be submitted together with the application form specified in 12.2.1. (1) to (9) are omitted)</p> <p><b>12.4 Approval Tests</b></p> <p><b>12.4.5 Test Reports</b> 1 Manufacturers are to prepare test reports upon completion of tests, obtain the surveyor’s signature thereon, and submit them, <u>in triplicate</u>, to the Society (Head Office).</p> <p><b>12.5 Approval Tests</b></p> <p><b>12.5.3 Renewal of Approval</b> 1 In the case of an application for renewal of approval, the applicant is to submit an application form as well as <u>a copy of the “Certificate of Approval” and three copies of actual</u></p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>data (for example, chemical composition, mechanical properties and outer diameter and thickness expressed in the form of histograms or statistics for each heat treatment) for the pipe joint within a specific period of time.</p> <p><b>12.5.4 Changes in Approved Content</b></p> <p><b>1</b> In cases where any of the changes in approved content given in the following (1) through (5) occur, documents corresponding to the requirements in 12.2.2 are to be submitted to the Society (Head Office), in addition to the “Certificate of Approval”. However, the data to be submitted may be limited to reference data for the changes made.</p> <p>((1) to (5) are omitted)</p> <p><b>Chapter 13 TYPE APPROVAL OF EXPLOSION RELIEF DEVICES PROVIDED FOR COMBUSTION AIR INLET MANIFOLDS AND FOR EXHAUST GAS MANIFOLDS COMPOSING EXHAUST SYSTEMS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES USING GAS AS FUEL</b></p> <p><b>13.1 General</b></p> <p><b>13.1.1 Scope</b> This chapter applies to the tests and inspections required for</p>	<p>manufacturing record data (for example, chemical composition, mechanical properties and outer diameter and thickness expressed in the form of histograms or statistics for each heat treatment) for the pipe joint within a specific period of time.</p> <p><b>12.5.4 Changes in Approved Content</b></p> <p><b>1</b> In cases where any of the changes in approved content given in the following (1) through (5) occur, <u>three copies of</u> documents corresponding to the requirements in 12.2.2 are to be submitted to the Society (Head Office), in addition to <u>a copy of</u> the “Certificate of Approval”. However, the data to be submitted may be limited to reference data for the changes made.</p> <p>((1) to (5) are omitted)</p> <p><b>Chapter 13 APPROVAL OF USE OF EXPLOSION RELIEF DEVICES PROVIDED FOR COMBUSTION AIR INLET MANIFOLDS AND FOR EXHAUST GAS MANIFOLDS COMPOSING EXHAUST SYSTEMS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES USING GAS AS FUEL</b></p> <p><b>13.1 General</b></p> <p><b>13.1.1 Scope</b> This chapter applies to the tests and inspections required for</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>the <u>type approval</u> of explosion relief devices provided for air inlet manifolds, scavenge spaces (hereinafter referred to collectively in this chapter as “combustion air inlet manifolds”) and for exhaust gas manifolds composing exhaust systems for reciprocating internal combustion engines using gas as fuel in accordance with 10.2.2-2 or 10.3.1-1, Part GF or 16.7.1-4, Part N of the Rules for the Survey and Construction of Steel Ships.</p> <p><b>13.2 Application</b></p> <p><b>13.2.1 Application Forms</b>  Manufacturers who intend to obtain <u>type approval</u> are to submit a completed appropriate application form (Form 6-13) to the Society’s Head Office.</p> <p><b>13.2.2 Documents</b>  The following documents listed in (1) through (9) below, are to be submitted together with the application forms specified in 13.2.1.  ((1) to (9) are omitted)</p> <p><b>13.3 Approval Tests</b></p> <p><b>13.3.3 Explosion Tests</b>  Explosion testing is to be performed in two stages according to following (1) and (2) for <i>ERD</i> that requires <u>type approval</u>. Explosion testing is to be witnessed by the Society’s surveyor. Calibration records for instrumentation used to collect data are to be presented to attending surveyor for review.</p>	<p>the approval <u>of use</u> of explosion relief devices provided for air inlet manifolds, scavenge spaces (hereinafter referred to collectively in this chapter as “combustion air inlet manifolds”) and for exhaust gas manifolds composing exhaust systems for reciprocating internal combustion engines using gas as fuel in accordance with 10.2.2-2 or 10.3.1-1, Part GF or 16.7.1-4, Part N of the Rules for the Survey and Construction of Steel Ships.</p> <p><b>13.2 Application</b></p> <p><b>13.2.1 Application Forms</b>  Manufacturers who intend to obtain approval <u>of use</u> are to submit a completed appropriate application form (Form 6-13) to the Society’s Head Office.</p> <p><b>13.2.2 Documents</b>  The following documents listed in (1) through (9) below, <u>each in triplicate</u>, are to be submitted together with the application forms specified in 13.2.1.  ((1) to (9) are omitted)</p> <p><b>13.3 Approval Tests</b></p> <p><b>13.3.3 Explosion Tests</b>  Explosion testing is to be performed in two stages according to following (1) and (2) for <i>ERD</i> that requires approval <u>of use</u>. Explosion testing is to be witnessed by the Society’s surveyor. Calibration records for instrumentation used to collect data are to be presented to attending surveyor for review.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>((1) and (2) are omitted)</p> <p><b>13.3.5 Test Reports</b>  Manufacturers are to prepare test reports for the demonstration tests specified in 13.3.2 and the explosion tests specified in 13.3.3. Such reports are to include the following information and relevant documents are to be verified by attending surveyors and then submitted, to the Society after completion of the tests.  ((1) to (5) are omitted)</p> <p><b>13.4 Approval</b></p> <p><b>13.4.2 Renewal of Approval</b>  <b>1</b> The valid term of the approval referred to in 13.4.1 is <u>5 years from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in 2 and 4, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p>	<p>((1) and (2) are omitted)</p> <p><b>13.3.5 Test Reports</b>  Manufacturers are to prepare test reports for the demonstration tests specified in 13.3.2 and the explosion tests specified in 13.3.3. Such reports are to include the following information and relevant documents are to be verified by attending surveyors and then submitted, <u>in triplicate</u>, to the Society after completion of the tests.  ((1) to (5) are omitted)</p> <p><b>13.4 Approval</b></p> <p><b>13.4.2 Renewal of Approval</b>  <b>1</b> The valid term of the approval referred to in 13.4.1 is <u>5 years.</u></p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p align="center"><b>Part 7 CONTROL AND INSTRUMENTATION EQUIPMENT AND ELECTRICAL INSTALLATIONS</b></p> <p><b>Chapter 1    <u>TYPE</u> APPROVAL OF AUTOMATIC DEVICES AND EQUIPMENT</b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b> The requirements in this chapter apply to tests and inspection for <u>type approval of</u> automatic devices and equipment (hereinafter referred to as “the equipment” in this chapter) in accordance with 18.7.2, Part D of the Rules for the Survey and Construction of Steel Ships. <u>In this case, part or all of the tests at the manufacturer may be omitted in accordance with 18.7.2-2, Part D of the Rules for the Survey and Construction of Steel Ships.</u></p> <p><b>1.2 Application Procedures</b></p> <p><b>1.2.1 Application Procedures</b> The manufacturer (applicant) of the equipment intended to be applied the requirements in this chapter is to submit the appropriate application form (Form 7-1) accompanied with the following drawings and documents to the Society.</p>	<p align="center"><b>Part 7 CONTROL AND INSTRUMENTATION EQUIPMENT AND ELECTRICAL INSTALLATIONS</b></p> <p><b>Chapter 1    APPROVAL OF <u>USE OF</u> AUTOMATIC DEVICES AND EQUIPMENT</b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b> The requirements in this chapter apply to tests and inspection for the approval <u>to exempt the shop tests partially or entirely</u> for automatic devices and equipment (hereinafter referred to as “the equipment” in this chapter) <u>intended to be installed in ship</u> in accordance with 18.7.2, Part D of the Rules for the Survey and Construction of Steel Ships.</p> <p><b>1.2 Application Procedures</b></p> <p><b>1.2.1 Application Procedures</b> The manufacturer (applicant) of the equipment intended to be applied the requirements in this chapter is to submit the appropriate application form (Form 7-1) accompanied with <u>three copies each of</u> the following drawings and documents to the Society.</p>	<p>Terminology alignment Change in description</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p>((1) to (7) are omitted)</p> <p>(8) <u>Information on the manufacturing and quality control standards of the said devices and equipment</u></p> <p>(9) <u>Past records of products of the said devices and equipment</u> (if any)</p> <p>(10) and (11) are omitted</p> <p><b>1.3 Environmental Test</b></p> <p><b>1.3.2 Test Records</b></p> <p>After completion of the test, the manufacturer is to produce a report of the test and is to submit to the Society upon receiving confirmation from the Society’s surveyor.</p> <p><b>1.4 Approval</b></p> <p><b>1.4.1 Certificate</b></p> <p>When the results of the tests specified in 1.3.1 are confirmed appropriate, the Society approves the equipment (hereinafter referred to as “approved equipment”) and issues the relevant approval certificate, <u>which specifies the approval number, date of approval, type, and model.</u></p> <p><b>1.4.3 Renewal of Approval</b></p> <p>2 When the specifications of the approved equipment remain unchanged, the Society approves the renewal of approval and issues a new <u>approval</u> certificate. The manufacturer who received the new <u>approval</u> certificate is to return the existing certificate to the Society as soon as possible.</p>	<p>((1) to (7) are omitted)</p> <p>(8) <u>Inspection and test specification for quality control (including test data)</u></p> <p>(9) Past records of products (if any)</p> <p>(10) and (11) are omitted</p> <p><b>1.3 Environmental Test</b></p> <p><b>1.3.2 Test Records</b></p> <p>After completion of the test, the manufacturer is to produce a report of the test and is to submit <u>three copies</u> to the Society upon receiving confirmation from the Society’s surveyor.</p> <p><b>1.4 Approval</b></p> <p><b>1.4.1 Certificate</b></p> <p>When the results of the tests specified in 1.3.1 are confirmed appropriate, the Society approves the equipment (hereinafter referred to as “approved equipment”) and issues the relevant approval certificate.</p> <p><b>1.4.3 Renewal of Approval</b></p> <p>2 When the specifications of the approved equipment remain unchanged, the Society approves the renewal of approval and issues a new certificate. The manufacturer who received the new certificate is to return the existing certificate to the Society as soon as possible.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p><b>1.5 Changes in Particulars, etc. of Approved Equipment</b></p> <p><b>1.5.1 Changes in Particulars, etc. of Approved Equipment</b></p> <p><b>1</b> In cases where the particulars of the approved equipment or materials, construction, dimensions, etc. of major components of the approved equipment are intended to be changed, the manufacturer is to submit to the Society the appropriate application form for changes (<b>Form 7-1</b>) accompanied with the following drawings and documents.</p> <p>(1) Explanatory notes for changes  (2) Necessary drawings and documents  (3) A copy of the certificate previously issued</p> <p><b>3</b> When confirmation tests are carried out, the manufacturer is to produce a report of the test and is to submit to the Society upon receiving confirmation from the Society’s surveyor.</p> <p><b>4</b> When the results of the examination for the drawings and documents and the confirmation test specified in -1 to -3 are confirmed to be satisfactory, the Society reissues the <u>approval certificate</u> with contents duly revised. The manufacturer who received the new <u>approval certificate</u> is to return the existing <u>approval certificate</u> to the Society as soon as possible.</p> <p><b>5</b> In the case specified in -4, the validity of the <u>approval certificate</u> is not changed in principle.</p>	<p><b>1.5 Changes in Particulars, etc. of Approved Equipment</b></p> <p><b>1.5.1 Changes in Particulars, etc. of Approved Equipment</b></p> <p><b>1</b> In cases where the particulars of the approved equipment or materials, construction, dimensions, etc. of major components of the approved equipment are intended to be changed, the manufacturer is to submit to the Society the appropriate application form for changes (<b>Form 7-1</b>) accompanied with the following drawings and documents.</p> <p>(1) Explanatory notes for changes (<u>three copies</u>)  (2) Necessary drawings and documents (<u>three copies each</u>)  (3) A copy of the certificate previously issued</p> <p><b>3</b> When confirmation tests are carried out, the manufacturer is to produce a report of the test and is to submit <u>three copies</u> to the Society upon receiving confirmation from the Society’s surveyor.</p> <p><b>4</b> When the results of the examination for the drawings and documents and the confirmation test specified in -1 to -3 are confirmed to be satisfactory, the Society reissues the certificate with contents duly revised. The manufacturer who received the new certificate is to return the existing certificate to the Society as soon as possible.</p> <p><b>5</b> In the case specified in -4, the validity of the certificate is not changed in principle.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>1.6 Revocation of Approval</b></p> <p><b>1.6.1 Revocation of Approval</b></p> <p>1 In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on the requirements in this chapter. In such cases, the Society is to notify the manufacturer of this revocation.</p> <p>(1) (omitted)</p> <p>(2) Where the valid term of the <u>approval</u> certificate has expired.</p> <p>((3) to (5) are omitted)</p> <p>2 The manufacturer who received a notice of revocation of approval is to return the <u>approval</u> certificate of the relevant equipment to the Society immediately.</p> <p><b>Chapter 2      <u>TYPE APPROVAL OF LOADING COMPUTER</u></b></p> <p><b>2.2 Application Procedure</b></p> <p>Any manufacturer (applicant) of the loading computers and stability computers, intended to be applied the requirements in this chapter, is to submit the appropriate application form (<b>Form7-2</b>) accompanied with the following drawings and documents to the Society:</p> <p>((1) and (2) are omitted)</p> <p>(3) <u>Information on the manufacturing and quality control standards of the said computer</u></p> <p>(4) Records of manufacture and delivery <u>said computer</u></p>	<p><b>1.6 Revocation of Approval</b></p> <p><b>1.6.1 Revocation of Approval</b></p> <p>1 In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on the requirements in this chapter. In such cases, the Society is to notify the manufacturer of this revocation.</p> <p>(1) (omitted)</p> <p>(2) Where the valid term of the certificate has expired.</p> <p>((3) to (5) are omitted)</p> <p>2 The manufacturer who received a notice of revocation of approval is to return the certificate of the relevant equipment to the Society immediately.</p> <p><b>Chapter 2      <u>APPROVAL OF USE OF LOADING COMPUTER</u></b></p> <p><b>2.2 Application Procedure</b></p> <p>Any manufacturer (applicant) of the loading computers and stability computers, intended to be applied the requirements in this chapter, is to submit the appropriate application form (<b>Form7-2</b>) accompanied with <u>three copies each of the following</u> drawings and documents to the Society:</p> <p>((1) and (2) are omitted)</p> <p>(3) <u>Inspection and test specification for quality control (including past data)</u></p> <p>(4) Records of manufacture and delivery (if any)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Change in description</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>(if any) ((5) and (6) are omitted)</p> <p><b>2.4 Tests and Inspection</b></p> <p><b>2.4.2 Certificates</b> When the results of tests specified in 2.4.1 are confirmed appropriate, the Society approves the equipment and issues <u>approval certificate which specifies the approval number, date of approval, type, and model.</u></p> <p><b>2.4.3 Terms of Validity</b> <u>The above certificate is valid for 5 years from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in 2.4.4, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>2.4.4 Renewal of Validity</b> <u>In case of application for renewal of approval, the manufacturer is to submit to the Society the appropriate application form (Specimen Form 7-2) accompanied with a copy of the approval certificate previously issued. The change of the specification, if any, is to be described in the application. Where the specifications of the approved equipment remain unchanged, the approval certificate will be issued with another 5 years valid term by the Society. Manufacturers whose renewal is approved are to return the existing approval certificate to the Society as soon as possible after receiving the new approval certificate and the term of validity of the existing approval certificate expires.</u></p>	<p>((5) and (6) are omitted)</p> <p><b>2.4 Tests and Inspection</b></p> <p><b>2.4.2 Certificates</b> When the results of tests specified in 2.4.1 are confirmed appropriate, the Society approves the equipment and issues certificate <u>specifically provided for.</u></p> <p><b>2.4.3 Terms of Validity</b> The above certificate is valid for 5 years.</p> <p><b>2.4.4 Renewal of Validity</b> <u>For renewal of validity, the manufacturer is to submit to the Society the appropriate application form (Specimen Form 7-2) accompanied with a copy of the certificate previously issued. The change of the specification, if any, is to be described in the application. Where the specifications of the approved equipment remain unchanged, the certificate will be issued with another 5 years valid term by the Society. Manufacturers whose renewal is approved are to return the existing certificate to the Society as soon as possible after receiving the new certificate and the term of validity of the existing certificate expires.</u></p>	<p>Change in description</p> <p>Change in description</p> <p>Change in description</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>2.5 Changes in Particulars, Material, Construction, etc. of Approved Equipment</b></p> <p><b>2.5.1 Changes in Particulars, Material, Construction, etc. of Approved Equipment</b></p> <p><b>1</b> In case where the particulars, materials, construction, dimensions, etc. of major components of the approved equipment are intended to be changed, the manufacturer is to be submit to the Society <u>each three copies</u> of the appropriate application form for changes (<b>Form 7-2</b>), explanatory notes for changes and necessary drawings, accompanied with a copy of the <u>approval</u> certificate previously issued.</p> <p><b>3</b> In case the results of confirmation tests specified in - 2 are deemed appropriate, a new <u>approval</u> certificate will be issued by the Society. In this case, the previously issued <u>approval</u> certificate is to be returned to the Society as soon as possible after receiving the new <u>approval</u> certificate.</p> <p><b>2.6 Invalidation of Approved Products</b></p> <p><b>2.6.1 Invalidation of Approved Products</b></p> <p><b>1</b> In case either of the following is relevant, approval of the product will be invalidated:</p> <p>(1) (Omitted)</p> <p>(2) Where the valid term of the <u>approval</u> certificate has expired.</p> <p>(3) and (4) are omitted</p> <p><b>2</b> Any manufacturer who has received notice of revocation of approval should return the <u>approval</u> certificate of the relevant equipment to the Society.</p>	<p><b>2.5 Changes in Particulars, Material, Construction, etc. of Approved Equipment</b></p> <p><b>2.5.1 Changes in Particulars, Material, Construction, etc. of Approved Equipment</b></p> <p><b>1</b> In case where the particulars, materials, construction, dimensions, etc. of major components of the approved equipment are intended to be changed, the manufacturer is to be submit to the Society <u>each three copies</u> of the appropriate application form for changes (<b>Form 7-2</b>), explanatory notes for changes and necessary drawings, accompanied with a copy of the certificate previously issued.</p> <p><b>3</b> In case the results of confirmation tests specified in - 2 are deemed appropriate, a new certificate will be issued by the Society. In this case, the previously issued certificate is to be returned to the Society as soon as possible after receiving the new certificate.</p> <p><b>2.6 Invalidation of Approved Products</b></p> <p><b>2.6.1 Invalidation of Approved Products</b></p> <p><b>1</b> In case either of the following is relevant, approval of the product will be invalidated:</p> <p>(1) (Omitted)</p> <p>(2) Where the valid term of the certificate has expired.</p> <p>(3) and (4) are omitted</p> <p><b>2</b> Any manufacturer who has received notice of revocation of approval should return the certificate of the relevant equipment to the Society.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>Chapter 3 APPROVAL OF CABLE LAYING</b></p> <p><b>3.2 Application Procedures</b></p> <p><b>3.2.2 Documents for Submission</b></p> <p>The manufacturer or constructor intended to obtain the approval of the fire stop methods is to submit drawings and documents specified in (1) for the approval of the fire stop methods, and similarly those specified in (2) for the approval of non-metallic cable supports, together with the appropriate application form specified in 3.2.1.</p> <p>(1) For fire stop methods</p> <p>(a) Specification (including detailed construction plan)</p> <p>(b) Characteristic of materials</p> <p>(c) Instructions for work procedures (in case of paints being used, the painting method and procedure including painting condition and the thickness of dry paint film are to be specified)</p> <p>(d) Approval test plan (<i>see 3.4.1</i>)</p> <p>(e) Copies of certificates or test records issued by official organizations (if any)</p> <p>(f) <u>Information on the quality control standards of the said fire stop methods</u></p> <p>(g) <u>Past records of said fire stop methods (if any)</u></p> <p>(h) Other documents as deemed necessary by the Society.</p> <p>(2) For non-metallic cable supports</p> <p>(a) Type name</p>	<p><b>Chapter 3 APPROVAL OF CABLE LAYING</b></p> <p><b>3.2 Application Procedures</b></p> <p><b>3.2.2 Documents for Submission</b></p> <p>The manufacturer or constructor intended to obtain the approval of the fire stop methods is to submit <u>three copies each of</u> drawings and documents specified in (1) for the approval of the fire stop methods, and similarly those specified in (2) for the approval of non-metallic cable supports, together with the appropriate application form specified in 3.2.1.</p> <p>(1) For fire stop methods</p> <p>(a) Specification (including detailed construction plan)</p> <p>(b) Characteristic of materials</p> <p>(c) Instructions for work procedures (in case of paints being used, the painting method and procedure including painting condition and the thickness of dry paint film are to be specified)</p> <p>(d) Approval test plan (<i>see 3.4.1</i>)</p> <p>(e) Copies of certificates or test records issued by official organizations (if any)</p> <p><u>(Newly added)</u></p> <p>(f) <u>Other documents as deemed necessary by the Society.</u></p> <p>(2) For non-metallic cable supports</p> <p>(a) Type name</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Addition of requirements related to quality control</p>

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Amended	Original	Remarks
<p>(b) Construction plan (including principal dimensions)</p> <p>(c) Characteristic of materials</p> <p>(d) Approval test plan (<i>see</i> 3.4.2)</p> <p>(e) Copies of certificates or test records issued by official organizations (if any)</p> <p>(f) <u>Information on the quality control standards of the said non-metallic cable supports</u></p> <p>(g) <u>Past records of said non-metallic cable supports (if any)</u></p> <p>(h) Other documents as deemed necessary by the Society.</p> <p><b>3.4.4 Test Records</b></p> <p>1 After the approval test has been completed, the manufacturer or constructor is to prepare the approval test records and to submit them to the Society after being verified by the Society’s surveyor.</p> <p><b>3.5 Approval</b></p> <p><b>3.5.2 Term of Validity</b></p> <p>The term of validity of the approval is to be 5 <i>years</i> from the day of approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 3.5.3, valid term will be 5 <i>years</i> from the next day after the expiry date of the previous validity.</u></p>	<p>(b) Construction plan (including principal dimensions)</p> <p>(c) Characteristic of materials</p> <p>(d) Approval test plan (<i>see</i> 3.4.2)</p> <p>(e) Copies of certificates or test records issued by official organizations (if any)</p> <p><u>(Newly added)</u></p> <p>(f) Other documents as deemed necessary by the Society.</p> <p><b>3.4.4 Test Records</b></p> <p>1 After the approval test has been completed, the manufacturer or constructor is to prepare the approval test records and to submit <u>three copies of them</u> to the Society after being verified by the Society’s surveyor.</p> <p><b>3.5 Approval</b></p> <p><b>3.5.2 Term of Validity</b></p> <p>The term of validity of the approval is to be 5 <i>years</i> <u>counting</u> from the day of approval.</p>	<p>Addition of requirements related to quality control</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p>

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Amended	Original	Remarks
<p><b>Chapter 4    <u>TYPE</u> APPROVAL OF LEVEL INDICATORS</b></p> <p><b>4.2 Application</b></p> <p><b>4.2.1 Application Form</b> The company, who intends to obtain <u>type</u> approval for level indicators are to submit the appropriate application form (Form 7-4) filled in with necessary data and information to the Society (Head Office).</p> <p><b>4.2.2 Applicant</b> 2 Manufacturers of parts of the said devices may be considered as approval applicants in case <u>type</u> approvals for the parts are desired.</p> <p><b>4.2.3 Documents</b> <u>The</u> drawings and data in the following (1) through (9) are to be submitted together with the application form specified in 4.2.1. (1) to (9) are omitted)</p> <p><b>4.4 Approval Test</b></p> <p><b>4.4.4 Test Records</b> 1 After completion of the approval test, the manufacturer is to prepare a record of the approval test and is to submit to the Society after getting verification by the surveyor of the Society.</p>	<p><b>Chapter 4    <u>APPROVAL OF USE</u> OF LEVEL INDICATORS</b></p> <p><b>4.2 Application</b></p> <p><b>4.2.1 Application Form</b> The company, who intends to obtain approval for <u>the use of</u> level indicators are to submit the appropriate application form (Form 7-4) filled in with necessary data and information to the Society (Head Office).</p> <p><b>4.2.2 Applicant</b> 2 Manufacturers of parts of the said devices may be considered as approval applicants in case <u>approvals for the use of</u> the parts are desired.</p> <p><b>4.2.3 Documents</b> <u>Three copies each of</u> the drawings and data in the following (1) through (9) are to be submitted together with the application form specified in 4.2.1. (1) to (9) are omitted)</p> <p><b>4.4 Approval Test</b></p> <p><b>4.4.4 Test Records</b> 1 After completion of the approval test, the manufacturer is to prepare a record of the approval test and is to submit <u>three copies</u> to the Society after getting verification by the surveyor of the Society.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p>

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Amended	Original	Remarks
<p><b>4.5 Approval</b></p> <p><b>4.5.2 Term of Validity</b> The term of validity of the <u>approval</u> of level indicator is not to exceed 5 <i>years</i> from the date of approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 4.5.3, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>4.5.3 Renewal of Approval</b> <b>1</b> The manufacturer, who intends to have a continuation of the <u>type</u> approval already expired or to make partial technical modifications of the level indicator, is to submit the appropriate application form (<b>Form 7-4E</b>) in accordance with the requirements of 4.2 newly. In this case, the data required per 4.2.3 may be limited to the portion subjected to modification only.</p> <p><b>4.5.4 Revocation of Approval</b> In case where either of the following (1) to (4) applies, the Society will revoke the <u>type</u> approval of level indicators, and give notice to the manufacturer.</p> <ol style="list-style-type: none"> <li>(1) When renewal procedures were not undertaken without any special reason.</li> <li>(2) In association with the implementation or revision of international conventions, laws and regulations, the machinery and equipment for which the <u>type</u> approval was granted do not deserve the approval any longer.</li> <li>(3) When serious shortcomings are found in structure or quality of the level indicator already <u>type</u> approved after being installed in ships.</li> </ol>	<p><b>4.5 Approval</b></p> <p><b>4.5.2 Term of Validity</b> The term of validity of the <u>approval</u> of level indicator is not to exceed 5 <i>years</i> from the date of approval.</p> <p><b>4.5.3 Renewal of Approval</b> <b>1</b> The manufacturer, who intends to have a continuation of the approval already expired or to make partial technical modifications of the level indicator, is to submit the appropriate application form (<b>Form 7-4E</b>) in accordance with the requirements of 4.2 newly. In this case, the data required per 4.2.3 may be limited to the portion subjected to modification only.</p> <p><b>4.5.4 Revocation of Approval</b> In case where either of the following (1) to (4) applies, the Society will revoke the approval <u>for use</u> of level indicators, and give notice to the manufacturer.</p> <ol style="list-style-type: none"> <li>(1) When renewal procedures were not undertaken without any special reason.</li> <li>(2) In association with the implementation or revision of international conventions, laws and regulations, the machinery and equipment for which the approval was granted do not deserve the approval any longer.</li> <li>(3) When serious shortcomings are found in structure or quality of the level indicator already approved after being installed in ships.</li> </ol>	<p>Change in description</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p>(4) When an application for revocation is made by the manufacturer.</p> <p><b>4.6 Handling after Approval</b></p> <p><b>4.6.1 Tests and Inspection on the Individual Product</b> Tests and inspection at the manufacturing plant of liquid level indicators which have been obtained the <u>type</u> approval may be limited to those specified in the approved certificate mentioned in 4.5.1-1 notwithstanding the relevant requirement of the Rules and their Guidance.</p> <p><b>Chapter 5 TYPE APPROVAL OF WATER LEVEL DETECTION AND ALARM SYSTEMS</b></p> <p><b>5.2 Application</b></p> <p><b>5.2.1 Application Form</b> The company, who intends to obtain the <u>type</u> approval of water level detection and alarm systems are to submit the appropriate application form (Form 7-5) filled in with necessary data and information to the Society (Head Office).</p> <p><b>5.2.2 Applicant</b> 2 Manufacturers of parts of the said systems may be allowed as an applicant for the <u>type</u> approval regarding the parts.</p>	<p>(4) When an application for revocation is made by the manufacturer.</p> <p><b>4.6 Handling after Approval</b></p> <p><b>4.6.1 Tests and Inspection on the Individual Product</b> Tests and inspection at the manufacturing plant of liquid level indicators which have been obtained the approval <u>for use</u> may be limited to those specified in the approved certificate mentioned in 4.5.1-1 notwithstanding the relevant requirement of the Rules and their Guidance</p> <p><b>Chapter 5 APPROVAL OF USE OF WATER LEVEL DETECTION AND ALARM SYSTEMS</b></p> <p><b>5.2 Application</b></p> <p><b>5.2.1 Application Form</b> The company, who intends to obtain the approval <u>of use</u> of water level detection and alarm systems are to submit the appropriate application form (Form 7-5) filled in with necessary data and information to the Society (Head Office).</p> <p><b>5.2.2 Applicant</b> 2 Manufacturers of parts of the said systems may be allowed as an applicant for the approval <u>of use</u> regarding the parts.</p>	<p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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<p><b>5.2.3 Documents</b>  <u>The drawings and data in the following (1) through (9) are to be submitted together with the application form specified in 5.2.1.</u>            ((1) to (9) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.4 Test Records</b>  <b>1</b> After completion of the approval test, the manufacturer is to prepare a record of the approval test and is to submit to the Society after verification by the attending surveyor.</p> <p><b>5.5 Approval</b></p> <p><b>5.5.1 Notice of Approval</b>            The Society, when satisfied upon examination of the submitted documents as required per 5.2 to 5.4 and the attending surveyor’s report, will <u>type approve</u> of the water level detection and alarm system. In this case, the Society will issue a certificate of approval specifying the approval number, approval date, items of approval and approval conditions, and put approval stamps on the documents as deemed necessary by the Society out of those submitted in accordance with 5.2.3 and 5.4.4, and return them back to the applicant.</p>	<p><b>5.2.3 Documents</b>  <u>Three copies each of the drawings and data in the following (1) through (9) are to be submitted together with the application form specified in 5.2.1.</u>            ((1) to (9) are omitted)</p> <p><b>5.4 Approval Test</b></p> <p><b>5.4.4 Test Records</b>  <b>1</b> After completion of the approval test, the manufacturer is to prepare a record of the approval test and is to submit <u>three copies</u> to the Society after verification by the attending surveyor.</p> <p><b>5.5 Approval</b></p> <p><b>5.5.1 Notice of Approval</b>            The Society, when satisfied upon examination of the submitted documents as required per 5.2 to 5.4 and the attending surveyor’s report, will approve <u>the use</u> of the water level detection and alarm system. In this case, the Society will issue a certificate of approval specifying the approval number, approval date, items of approval and approval conditions, and put approval stamps on the documents as deemed necessary by the Society out of those submitted in accordance with 5.2.3 and 5.4.4, and return them back to the applicant.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>5.5.2 Term of Validity</b></p> <p>The term of validity of the <u>type</u> approval is not to exceed five <i>years</i> from the date of approval. In case when the renewal of approval is carried out in accordance with the requirements in <u>5.5.3</u>, valid term will be 5 years from the next day after the expiry date of the previous validity.</p> <p><b>5.5.3 Renewal of Approval</b></p> <p>1 The manufacturer, who intends to have a continuation of the <u>type</u> approval to be expired or to make partial technical modifications of the system, is to submit the appropriate application form (<b>Form 7-5E</b>) in accordance with the requirements of <u>5.2</u> newly. In this case, the data required per <u>5.2.3</u> may be limited to the portion subjected to modification only.</p> <p><b>5.5.4 Revocation of Approval</b></p> <p>In case where either of the following (1) to (4) applies, the Society will revoke the <u>type</u> approval of the water level detection and alarm system, and give a notice to the manufacturer.</p> <ol style="list-style-type: none"> <li>(1) When renewal procedures were not undertaken without any special reason.</li> <li>(2) In association with the implementation or revision of international conventions, laws and regulations, the system for which the <u>type</u> approval was granted do not deserve the approval any longer.</li> <li>(3) When serious shortcomings are found in structure or quality of the water level detection and alarm system already <u>type</u> approved after being installed in ships.</li> <li>(4) When an application for revocation is made by the</li> </ol>	<p><b>5.5.2 Term of Validity</b></p> <p>The term of validity of the approval is not to exceed five <i>years</i> from the date of approval.</p> <p><b>5.5.3 Renewal of Approval</b></p> <p>1 The manufacturer, who intends to have a continuation of the approval to be expired or to make partial technical modifications of the system, is to submit the appropriate application form (<b>Form 7-5E</b>) in accordance with the requirements of <u>5.2</u> newly. In this case, the data required per <u>5.2.3</u> may be limited to the portion subjected to modification only.</p> <p><b>5.5.4 Revocation of Approval</b></p> <p>In case where either of the following (1) to (4) applies, the Society will revoke the approval <u>of use</u> of the water level detection and alarm system, and give a notice to the manufacturer.</p> <ol style="list-style-type: none"> <li>(1) When renewal procedures were not undertaken without any special reason.</li> <li>(2) In association with the implementation or revision of international conventions, laws and regulations, the system for which the approval was granted do not deserve the approval any longer.</li> <li>(3) When serious shortcomings are found in structure or quality of the water level detection and alarm system already approved after being installed in ships.</li> <li>(4) When an application for revocation is made by the</li> </ol>	<p>Change in description</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>manufacturer.</p> <p><b>5.6 Handling after Approval</b></p> <p><b>5.6.1 Tests and Inspection on the Individual Product</b> Tests and inspection at the manufacturer of the water level detection and alarm systems which has been obtained the <u>type approval</u> may be limited to those specified in the approved certificate mentioned in 5.5.1-1 notwithstanding the relevant requirement of the Rules and their Guidance</p> <p><b>Chapter 6 TYPE APPROVAL OF CRANKCASE OIL MIST DETECTION ARRANGEMENTS</b></p> <p><b>6.1 General</b></p> <p><b>6.1.1 Scope</b> The requirements in this Chapter apply to testing and inspection for <u>type approval</u> of crankcase oil mist detection arrangements in accordance with the requirements of 2.4.5 Part D of the Rules for the Survey and Construction of Steel Ships.</p>	<p>manufacturer.</p> <p><b>5.6 Handling after Approval</b></p> <p><b>5.6.1 Tests and Inspection on the Individual Product</b> Tests and inspection at the manufacturer of the water level detection and alarm systems which has been obtained the approval <u>of use</u> may be limited to those specified in the approved certificate mentioned in 5.5.1-1 notwithstanding the relevant requirement of the Rules and their Guidance</p> <p><b>Chapter 6 APPROVAL OF USE OF CRANKCASE OIL MIST DETECTION ARRANGEMENTS</b></p> <p><b>6.1 General</b></p> <p><b>6.1.1 Scope</b> The requirements in this Chapter apply to testing and inspection for <u>use</u> of crankcase oil mist detection arrangements in accordance with the requirements of 2.4.5 Part D of the Rules for the Survey and Construction of Steel Ships.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>6.2 Application</b></p> <p><b>6.2.1 Application Form</b> The manufacturer, who intends to obtain the <u>type</u> approval, is to submit the appropriate application form (Form 7-6) filled in with necessary data and information to the Society (Head office).</p> <p><b>6.2.2 Documents</b> The documents listed (1) through (10) below, are to be submitted together with the application form specified in 6.2.1. (1) to (10) are omitted)</p> <p><b>6.3 Approval Tests</b></p> <p><b>6.3.5 Test Records</b> The manufacturer is to prepare records of the approval test including the following information and documents after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, to the Society. (1) to (3) are omitted)</p> <p><b>6.4 Approval</b></p> <p><b>6.4.2 Renewal of Approval</b> 1 The valid term of approval in the preceding 6.4.1 will be <u>5 years from the date of approval. In case when the renewal</u></p>	<p><b>6.2 Application</b></p> <p><b>6.2.1 Application Form</b> The manufacturer, who intends to obtain the approval <u>of use</u>, is to submit the appropriate application form (Form 7-6) filled in with necessary data and information to the Society (Head office).</p> <p><b>6.2.2 Documents</b> The documents listed (1) through (10) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 6.2.1. (1) to (10) are omitted)</p> <p><b>6.3 Approval Tests</b></p> <p><b>6.3.5 Test Records</b> The manufacturer is to prepare records of the approval test including the following information and documents after completion of the test, to obtain verification by the Society's attending surveyor and to submit them, <u>in triplicate</u>, to the Society. (1) to (3) are omitted)</p> <p><b>6.4 Approval</b></p> <p><b>6.4.2 Renewal of Approval</b> 1 The valid term of approval in the preceding 6.4.1 will be <u>5 years</u>.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p>

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Amended	Original	Remarks
<p><u>of approval is carried out in accordance with the requirements in 2 and 4, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>6.5 Handling after Approval</b></p> <p><b>6.5.1 Tests and Inspection on the Individual Product</b> Test and inspection at the manufacturer and on board of the oil mist detection arrangements which has been obtained the <u>type</u> approval may be limited to those specified in the approved certificate mentioned in 6.4.1 notwithstanding the relevant requirement of the Rules and their Guidance.</p> <p style="text-align: center;"><b>Chapter 7 TYPE APPROVAL OF GAS DETECTION EQUIPMENT</b></p> <p><b>7.2 Application</b></p> <p><b>7.2.1 Application Form</b> The manufacturer, who intends to obtain the <u>type</u> approval, is to submit the appropriate application form (Form 7-7) filled in with necessary data and information to the Society (Head office).</p> <p><b>7.2.2 Documents</b> The documents listed (1) through (11) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 7.2.1. (1) to (11) are omitted)</p>	<p><b>6.5 Handling after Approval</b></p> <p><b>6.5.1 Tests and Inspection on the Individual Product</b> Test and inspection at the manufacturer and on board of the oil mist detection arrangements which has been obtained the approval <u>of use</u> may be limited to those specified in the approved certificate mentioned in 6.4.1 notwithstanding the relevant requirement of the Rules and their Guidance.</p> <p style="text-align: center;"><b>Chapter 7 APPROVAL OF USE OF GAS DETECTION EQUIPMENT</b></p> <p><b>7.2 Application</b></p> <p><b>7.2.1 Application Form</b> The manufacturer, who intends to obtain the approval <u>of use</u>, is to submit the appropriate application form (Form 7-7) filled in with necessary data and information to the Society (Head office).</p> <p><b>7.2.2 Documents</b> The documents listed (1) through (11) below, <u>each in triplicate</u>, are to be submitted together with the application form specified in 7.2.1. (1) to (11) are omitted)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><b>7.4 Approval Test</b></p> <p><b>7.4.9 Test Records</b></p> <p>1 After completion of the approval test, the manufacturer is to prepare a record of the approval test and is to submit to the Society after verification by the attending surveyor.</p> <p><b>7.5 Approval</b></p> <p><b>7.5.1 Notice of Approval</b></p> <p>The Society, when satisfied upon examination of the submitted documents as required per 7.2 to 7.4 and the attending surveyor’s report, will <u>type</u> approve of the gas detection equipment. In this case, the Society will issue a certificate of approval specifying the approval number, approval date, items of approval and approval conditions, and put approval stamps on the documents as deemed necessary by the Society out of those submitted in accordance with 7.2.2 and 7.4.9, and return them back to the applicant.</p> <p><b>7.5.2 Term of Validity</b></p> <p>The term of validity of the approval of gas detection equipment is not to exceed five years from the date of approval. <u>In case when the renewal of approval is carried out in accordance with the requirements in 7.5.3, valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p>	<p><b>7.4 Approval Test</b></p> <p><b>7.4.9 Test Records</b></p> <p>1 After completion of the approval test, the manufacturer is to prepare a record of the approval test and is to submit <u>three copies</u> to the Society after verification by the attending surveyor.</p> <p><b>7.5 Approval</b></p> <p><b>7.5.1 Notice of Approval</b></p> <p>The Society, when satisfied upon examination of the submitted documents as required per 7.2 to 7.4 and the attending surveyor’s report, will approve <u>the use</u> of the gas detection equipment. In this case, the Society will issue a certificate of approval specifying the approval number, approval date, items of approval and approval conditions, and put approval stamps on the documents as deemed necessary by the Society out of those submitted in accordance with 7.2.2 and 7.4.9, and return them back to the applicant.</p> <p><b>7.5.2 Term of Validity</b></p> <p>The term of validity of the approval of gas detection equipment is not to exceed five years from the date of approval.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Change in description</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p><b>7.6 Handling after Approval</b></p> <p><b>7.6.1 Tests and Inspection on the Individual Product</b> Tests and inspection at the manufacturing plant of gas detection equipment which have been obtained the <u>type approval</u> may be limited to those specified in the approved certificate mentioned in 7.5.1-1 notwithstanding the relevant requirement of the Rules and their Guidance.</p> <p><b>Chapter 8      <u>TYPE APPROVAL OF COMPUTER BASED SYSTEMS</u></b></p> <p><b>8.1 General</b></p> <p><b>8.1.1 Scope</b> 1 The requirements in this chapter apply to tests and inspection for “<u>Type approval</u>” of computer based systems belong to category II or III specified in 3.3.1, Part X of the Rules for the Survey and Construction of Steel Ships in accordance with 18.1.3, Part D and 3.2.2, Part X of the Rules for the Survey and Construction of Steel Ships, 2.2.1-2 of the Guidance for Automatic and Remote Control Systems, 12.1.3, Part 9 of the Rules for High Speed Craft and 14.1.3, Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships. 2 Programmable devices installed into a computer based system which receives <u>type approval</u> in accordance with requirements of this chapter are to be subject to the</p>	<p><b>7.6 Handling after Approval</b></p> <p><b>7.6.1 Tests and Inspection on the Individual Product</b> Tests and inspection at the manufacturing plant of gas detection equipment which have been obtained the approval <u>for use</u> may be limited to those specified in the approved certificate mentioned in 7.5.1-1 notwithstanding the relevant requirement of the Rules and their Guidance.</p> <p><b>Chapter 8      <u>APPROVAL OF USE OF COMPUTER BASED SYSTEMS</u></b></p> <p><b>8.1 General</b></p> <p><b>8.1.1 Scope</b> 1 The requirements in this chapter apply to tests and inspection for “<u>approval of use</u>” of computer based systems belong to category II or III specified in 3.3.1, Part X of the Rules for the Survey and Construction of Steel Ships in accordance with 18.1.3, Part D and 3.2.2, Part X of the Rules for the Survey and Construction of Steel Ships, 2.2.1-2 of the Guidance for Automatic and Remote Control Systems, 12.1.3, Part 9 of the Rules for High Speed Craft and 14.1.3, Part 7 of the Rules for the Survey and Construction of Inland Waterway Ships. 2 Programmable devices installed into a computer based system which receives <u>approval of use</u> in accordance with requirements of this chapter are to be subject to the</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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<p>environmental tests specified in <b>Table 7.1-1</b>. However, for programmable devices which have already received approval of use from the Society, a part of or all environmental tests may be omitted.</p> <p><b>8.2 Application</b></p> <p><b>8.2.1 Application Forms</b>  The manufacturer who makes an application for <u>type</u> approval of the computer based system is to submit the appropriate application form (<b>Form 7-8</b>) filled in with necessary data and information to the Society.</p> <p><b>8.2.2 Documents to be submitted</b></p> <p><b>1</b> <u>The following documents are to be submitted to the Society with the application form specified in 8.2.1. Summaries of said drawings and data are shown in Table 7.8-1.</u></p> <p>(1) (Omitted)</p> <p>(2) Drawings and data for reference:</p> <p>(a) <u>An approval</u> certificate issued in accordance with <b>Chapter 1, Part 7</b> or documents proving satisfaction with environmental tests specified in <b>7.1-1</b>.</p> <p>(b) Software test report</p> <p>(c) System test report</p> <p>(d) FAT report</p> <p>(e) Additional FAT documentation (e.g. user manuals)</p> <p>(f) Other drawings and data deemed necessary by the Society</p>	<p>environmental tests specified in <b>Table 7.1-1</b>. However, for programmable devices which have already received approval of use from the Society, a part of or all environmental tests may be omitted.</p> <p><b>8.2 Application</b></p> <p><b>8.2.1 Application Forms</b>  The manufacturer who makes an application for approval <u>of use</u> of the computer based system is to submit the appropriate application form (<b>Form 7-8</b>) filled in with necessary data and information to the Society.</p> <p><b>8.2.2 Documents to be submitted</b></p> <p><b>1</b> <u>Three copies each of the following documents are to be submitted to the Society with the application form specified in 8.2.1. Summaries of said drawings and data are shown in Table 7.8-1.</u></p> <p>(1) (Omitted)</p> <p>(2) Drawings and data for reference:</p> <p>(a) A certificate issued in accordance with <b>Chapter 1, Part 7</b> or documents proving satisfaction with environmental tests specified in <b>7.1-1</b>.</p> <p>(b) Software test report</p> <p>(c) System test report</p> <p>(d) FAT report</p> <p>(e) Additional FAT documentation (e.g. user manuals)</p> <p>(f) Other drawings and data deemed necessary by the Society</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization  Terminology alignment</p>

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Amended	Original	Remarks
<p><b>8.4 Approval Test</b></p> <p><b>8.4.3 Test Records</b> After completion of the test specified in 8.4.1, the manufacturer is to produce a report of the test and is to submit to the Society upon receiving confirmation from the Society’s surveyor.</p> <p><b>8.5 Approval</b></p> <p><b>8.5.1 Certificate</b> When the results of the examinations of submitted drawings and data and the tests specified in 8.2 to 8.4 are confirmed appropriate, the Society approves the computer based system (hereinafter referred to as “approved computer based system”) and issues the relevant approval certificate. <u>which specifies the approval number, date of approval, type, and model.</u></p> <p><b>8.5.2 Validity of Approval</b> The certificate specified in 8.5.1 is to be valid <u>for 5 years</u> from its date of issue. However, when the approval is renewed in accordance with 8.5.3, the new certificate is to be valid <u>for 5 years</u> from the date of expiry of the existing certificate.</p> <p><b>8.5.3 Renewal of Approval</b> <b>1</b> In the case of application for renewal of approval, the manufacturer is to submit to the Society the appropriate application form (<b>Form 7-8</b>) accompanied with a copy of the</p>	<p><b>8.4 Approval Test</b></p> <p><b>8.4.3 Test Records</b> After completion of the test specified in 8.4.1, the manufacturer is to produce a report of the test and is to submit <u>three copies</u> to the Society upon receiving confirmation from the Society’s surveyor.</p> <p><b>8.5 Approval</b></p> <p><b>8.5.1 Certificate</b> When the results of the examinations of submitted drawings and data and the tests specified in 8.2 to 8.4 are confirmed appropriate, the Society approves the computer based system (hereinafter referred to as “approved computer based system”) and issues the relevant approval certificate.</p> <p><b>8.5.2 Validity of Approval</b> The certificate specified in 8.5.1 is to be valid <u>until a date not exceeding 5 years</u> from its date of issue. However, when the approval is renewed in accordance with 8.5.3, the new certificate is to be valid until a date not exceeding <u>5 years</u> from the date of expiry of the existing certificate.</p> <p><b>8.5.3 Renewal of Approval</b> <b>1</b> In the case of application for renewal of approval, the manufacturer is to submit to the Society the appropriate application form (<b>Form 7-8</b>) accompanied with a copy of the</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p> <p>Change in description</p> <p>Terminology alignment</p>

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
<p><u>approval</u> certificate previously issued. The changes in particulars of the approved computer based system, quality system of manufacturer, etc., if any, are to be described in the application.</p> <p>2 When the particulars of the approved computer based system, quality system of manufacturer, etc. remain unchanged, the Society approves the renewal of approval and issues a new <u>approval</u> certificate. The manufacturer who received the new <u>approval</u> certificate is to return the existing <u>approval</u> certificate to the Society as soon as possible.</p> <p><b>8.6 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p><b>8.6.1 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p>1 In cases where the particulars of the approved computer based system, quality system of manufacturer, etc. are intended to be changed, the manufacturer is to submit to the Society the appropriate application form for changes (<b>Form 7-8</b>) accompanied with the following documents.</p> <p>(1) explanatory notes for changes_,</p> <p>(2) necessary drawings and data , and</p> <p>(3) a copy of the <u>approval</u> certificate previously issued.</p> <p>3 When confirmation tests are carried out, the manufacturer is to produce a report of the test and is to submit to the Society upon receiving confirmation from the Society’s surveyor.</p> <p>4 When the results of the examination for documents and</p>	<p>certificate previously issued. The changes in particulars of the approved computer based system, quality system of manufacturer, etc., if any, are to be described in the application.</p> <p>2 When the particulars of the approved computer based system, quality system of manufacturer, etc. remain unchanged, the Society approves the renewal of approval and issues a new certificate. The manufacturer who received the new certificate is to return the existing certificate to the Society as soon as possible.</p> <p><b>8.6 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p><b>8.6.1 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p>1 In cases where the particulars of the approved computer based system, quality system of manufacturer, etc. are intended to be changed, the manufacturer is to submit to the Society the appropriate application form for changes (<b>Form 7-8</b>) accompanied with the following documents.</p> <p>(1) explanatory notes for changes (<u>three copies</u>),</p> <p>(2) necessary drawings and data (<u>three copies each</u>), and</p> <p>(3) a copy of the certificate previously issued.</p> <p>3 When confirmation tests are carried out, the manufacturer is to produce a report of the test and is to submit <u>three copies</u> to the Society upon receiving confirmation from the Society’s surveyor.</p> <p>4 When the results of the examination for documents</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p>the confirmation test specified in -1 to -3 are confirmed to be satisfactory, the Society reissues the certificate with contents duly revised. The manufacturer who received the new certificate is to return the existing certificate to the Society as soon as possible.</p> <p><b>5</b> In the case specified in -4, the validity of the <u>approval</u> certificate is not changed in principle.</p> <p><b>8.7 Revocation of Approval</b></p> <p><b>8.7.1 Revocation of Approval</b></p> <p><b>1</b> In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on the requirements in this chapter. In such cases, the Society is to notify the manufacturer of the revocation.</p> <p>(1) Where the result of the confirmation tests were found unsatisfactory.</p> <p>(2) Where the valid term of the <u>approval</u> certificate has expired.</p> <p>(3) Where the confirmation test was not carried out without any unavoidable reason.</p> <p>(4) Where withdrawal of the approval has been offered by the manufacturer.</p> <p>(5) Where the Society judged the approved computer based system to be unsuitable in the light of the service records of the shipboard automation equipment.</p> <p><b>2</b> The manufacturer who received a notice of revocation of approval is to return the <u>approval</u> certificate of the relevant computer based system to the Society immediately.</p>	<p>and the confirmation test specified in -1 to -3 are confirmed to be satisfactory, the Society reissues the <u>approval</u> certificate with contents duly revised. The manufacturer who received the new <u>approval</u> certificate is to return the existing <u>approval</u> certificate to the Society as soon as possible.</p> <p><b>5</b> In the case specified in -4, the validity of the certificate is not changed in principle.</p> <p><b>8.7 Revocation of Approval</b></p> <p><b>8.7.1 Revocation of Approval</b></p> <p><b>1</b> In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on the requirements in this chapter. In such cases, the Society is to notify the manufacturer of the revocation.</p> <p>(1) Where the result of the confirmation tests were found unsatisfactory.</p> <p>(2) Where the valid term of the certificate has expired.</p> <p>(3) Where the confirmation test was not carried out without any unavoidable reason.</p> <p>(4) Where withdrawal of the approval has been offered by the manufacturer.</p> <p>(5) Where the Society judged the approved computer based system to be unsuitable in the light of the service records of the shipboard automation equipment.</p> <p><b>2</b> The manufacturer who received a notice of revocation of approval is to return the certificate of the relevant computer based system to the Society immediately.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>



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<p><b>9.3 Tests</b></p> <p><b>9.3.4 Test Records</b>                      After completion of tests, manufacturers are to prepare test reports, have such reports confirmed by Society surveyors, and then submit the confirmed reports to the Society for approval.</p> <p><b>9.4 <u>Type</u> Approval as Automatic Devices and Equipment</b></p> <p><b>9.4.1 <u>Type</u> Approval as Automatic Devices and Equipment</b>                      Accumulator battery systems are to receive <u>type</u> approval based on <b>Chapter 1</b>. However, in tests according to <b>1.3.1</b>, it is acceptable to use only those components (e.g. battery packs) of accumulator battery systems installed on board that have the minimum functions required for verification of tests.</p> <p><b>9.5 Approval</b></p> <p><b>9.5.1 Certificates</b>                      When the results of the tests specified in <b>9.3.1</b> and <b>9.3.2</b> are confirmed to be appropriate and accumulator battery systems comply with <b>9.4</b>, the Society is to approve the accumulator battery system (hereinafter referred to as “approved equipment”) and issue the relevant approval certificate <u>which specifies the approval number, date of</u></p>	<p><b>9.3 Tests</b></p> <p><b>9.3.4 Test Records</b>                      After completion of tests, manufacturers are to prepare test reports, have such reports confirmed by Society surveyors, and then submit <u>three copies of the confirmed reports</u> to the Society for approval.</p> <p><b>9.4 <u>Use of</u> Approval as Automatic Devices and Equipment</b></p> <p><b>9.4.1 <u>Use of</u> Approval as Automatic Devices and Equipment</b>                      Accumulator battery systems are to receive <u>use of</u> approval based on <b>Chapter 1</b>. However, in tests according to <b>1.3.1</b>, it is acceptable to use only those components (e.g. battery packs) of accumulator battery systems installed on board that have the minimum functions required for verification of tests</p> <p><b>9.5 Approval</b></p> <p><b>9.5.1 Certificates</b>                      When the results of the tests specified in <b>9.3.1</b> and <b>9.3.2</b> are confirmed to be appropriate and accumulator battery systems comply with <b>9.4</b>, the Society is to approve the accumulator battery system (hereinafter referred to as “approved equipment”) and issue the relevant approval certificate.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Change in description</p>

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Amended	Original	Remarks
<p><u>approval, type, and model.</u></p> <p><b>9.5.2 Validity</b>  The certificates specified in 9.5.1 are valid <u>for 5 years</u> from their date of <u>approval</u>. However, when approval is renewed in accordance with 9.5.3, the new certificate is to be valid <u>for 5 years</u> from the <u>next day after the expiry date of the previous validity</u>.</p> <p><b>9.5.3 Renewal</b>  <b>1</b> Manufacturers applying for renewal of approval to submit the appropriate application form (<b>Form 7-9</b>) accompanied with copies of previously issued <u>approval</u> certificates to the Society review. Furthermore, changes in accumulator battery system specifications, if any, are to be described on the application forms.  <b>2</b> In cases where approved equipment specifications remain unchanged, the Society is to grant the renewal of approval and issue a new <u>approval</u> certificate. Manufacturers who receive new <u>approval</u> certificates are to return previously issued <u>approval</u> certificates to the Society as soon as possible.</p> <p><b>9.6 Changes in Particulars, etc. of Approved Equipment</b></p> <p><b>9.6.1 Changes in Particulars, etc. of Approved Equipment</b>  <b>1</b> In cases where the particulars of approved equipment, or the materials, construction, dimensions, etc. of major components of such approved equipment are intended to be changed, manufacturers are to submit the appropriate</p>	<p><b>9.5.2 Validity</b>  The certificates specified in 9.5.1 are valid <u>until a date not exceeding 5 years</u> from their date of <u>issue</u>. However, when approval is renewed in accordance with 9.5.3, the new certificate is to be valid <u>until a date not exceeding 5 years</u> from the <u>date of expiry of the previously issued certificate</u>.</p> <p><b>9.5.3 Renewal</b>  <b>1</b> Manufacturers applying for renewal of approval to submit the appropriate application form (<b>Form 7-9</b>) accompanied with copies of previously issued certificates to the Society review. Furthermore, changes in accumulator battery system specifications, if any, are to be described on the application forms.  <b>2</b> In cases where approved equipment specifications remain unchanged, the Society is to grant the renewal of approval and issue a new certificate. Manufacturers who receive new certificates are to return previously issued certificates to the Society as soon as possible.</p> <p><b>9.6 Changes in Particulars, etc. of Approved Equipment</b></p> <p><b>9.6.1 Changes in Particulars, etc. of Approved Equipment</b>  <b>1</b> In cases where the particulars of approved equipment, or the materials, construction, dimensions, etc. of major components of such approved equipment are intended to be changed, manufacturers are to submit the appropriate</p>	<p>Change in description</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p>

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<p>application form for changes (<b>Form 7-9</b>) accompanied with the following drawings and documents to the Society for approval.</p> <ol style="list-style-type: none"> <li>(1) Explanatory notes for changes</li> <li>(2) Necessary drawings and documents</li> <li>(3) Copies of previously issued certificates</li> </ol> <p><b>3</b> When confirmation tests are carried out, manufacturers are to prepare test reports, have such reports confirmed by Society surveyors, and then to submit the confirmed reports to the Society for approval.</p> <p><b>4</b> When the results of examinations of submitted drawings and documents, and the confirmation tests specified in -1 to -3 above are determined to be satisfactory, the Society is to reissue <u>approval</u> certificates with their contents duly revised. Manufacturers who receive revised <u>approval</u> certificates are to return previously issued <u>approval</u> certificates to the Society as soon as possible.</p> <p><b>5</b> In the case of -4 above, the validity of <u>approval</u> certificates does not change in principle.</p> <p><b>9.7 Revocation of Approval</b></p> <p><b>9.7.1 Revocation of Approval</b></p> <p><b>1</b> In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on this chapter. In such cases, the Society is to notify manufacturers of such revocation.</p> <ol style="list-style-type: none"> <li>(1) In cases where the results of confirmation tests were found unsatisfactory.</li> <li>(2) In cases where the valid terms of <u>approval</u> certificates</li> </ol>	<p>application form for changes (<b>Form 7-9</b>) accompanied with the following drawings and documents to the Society for approval.</p> <ol style="list-style-type: none"> <li>(1) Explanatory notes for changes (<u>three copies</u>)</li> <li>(2) Necessary drawings and documents (<u>three copies each</u>)</li> <li>(3) Copies of previously issued certificates</li> </ol> <p><b>3</b> When confirmation tests are carried out, manufacturers are to prepare test reports, have such reports confirmed by Society surveyors, and then to submit <u>three copies of the confirmed reports</u> to the Society for approval.</p> <p><b>4</b> When the results of examinations of submitted drawings and documents, and the confirmation tests specified in -1 to -3 above are determined to be satisfactory, the Society is to reissue certificates with their contents duly revised. Manufacturers who receive revised certificates are to return previously issued certificates to the Society as soon as possible.</p> <p><b>5</b> In the case of -4 above, the validity of certificates does not change in principle.</p> <p><b>9.7 Revocation of Approval</b></p> <p><b>9.7.1 Revocation of Approval</b></p> <p><b>1</b> In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on this chapter. In such cases, the Society is to notify manufacturers of such revocation.</p> <ol style="list-style-type: none"> <li>(1) In cases where the results of confirmation tests were found unsatisfactory.</li> <li>(2) In cases where the valid terms of certificates have</li> </ol>	<p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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<p>have expired.</p> <p>(3) In cases where confirmation tests were not carried out without a valid reason.</p> <p>(4) In cases where withdrawal of approval has been requested by manufacturers.</p> <p>(5) In cases where the Society judges approved equipment to be unsuitable based on the equipment service records.</p> <p><b>Chapter 10    <u>TYPE</u> APPROVAL OF SYSTEMS AND EQUIPMENT WITH IMPROVED CYBER RESILIENCE</b></p> <p><b>10.1 General</b></p> <p><b>10.1.1 Scope</b></p> <p>2 Computer-based systems subjected to <b>Chapter 4, Part X of the Rules for the Survey and Construction of Steel Ships</b> are to be subjected to the factory acceptance test specified in 10.3. However, for computer-based systems which have already received <u>type</u> approval from the Society, plans and documents which obtained at the time of the <u>type</u> approval may be acceptable.</p> <p><b>10.2 Application</b></p> <p><b>10.2.1 Application Forms</b></p> <p>The manufacturer who makes application for <u>type</u></p>	<p>expired.</p> <p>(3) In cases where confirmation tests were not carried out without a valid reason.</p> <p>(4) In cases where withdrawal of approval has been requested by manufacturers.</p> <p>(5) In cases where the Society judges approved equipment to be unsuitable based on the equipment service records.</p> <p><b>Chapter 10    <u>APPROVAL OF USE</u> OF SYSTEMS AND EQUIPMENT WITH IMPROVED CYBER RESILIENCE</b></p> <p><b>10.1 General</b></p> <p><b>10.1.1 Scope</b></p> <p>2 Computer-based systems subjected to <b>Chapter 4, Part X of the Rules for the Survey and Construction of Steel Ships</b> are to be subjected to the factory acceptance test specified in 10.3. However, for computer-based systems which have already received approval <u>of use</u> from the Society, plans and documents which obtained at the time of the approval <u>of use</u> may be acceptable.</p> <p><b>10.2 Application</b></p> <p><b>10.2.1 Application Forms</b></p> <p>The manufacturer who makes <u>an</u> application for</p>	<p></p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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<p>approval of the computer based system is to submit the appropriate application form (<i>Form 7-10</i>) filled in with necessary data and information to the Society.</p> <p><b>10.2.2 Documents to be Submitted</b></p> <p><b>1</b> The following documents are to be submitted to the Society with the application form specified in <b>10.2.1</b>. ((1) and (2) are omitted.)</p> <p><b>10.3 Factory Acceptance Test</b></p> <p>The objective of factory acceptance test is to demonstrate by testing and/or analytic evaluation that the computer-based system complies with applicable requirements in <b>Chapter 4, Part X of the Rules for the Survey and Construction of Steel Ships</b>. The survey and factory acceptance test is to be carried out at the supplier’s premises or at other works having the adequate apparatus for testing and inspection. After completed plan approval and survey/factory acceptance test, the Society will issue a System <u>approval</u> certificate that is to accompany the computer-based system upon delivery to the system integrator.</p> <p><b>10.4 Approval</b></p> <p><b>10.4.1 Certificate</b></p> <p>When the results of the examinations of submitted drawings and data and the tests specified in <b>10.2</b> and <b>10.3</b> are confirmed appropriate, the Society approves the computer based system (hereinafter referred to as “approved computer</p>	<p>approval <u>of use</u> of the computer based system is to submit the appropriate application form (<i>Form 7-10</i>) filled in with necessary data and information to the Society.</p> <p><b>10.2.2 Documents to be Submitted</b></p> <p><b>1</b> <u>Three copies each</u> of the following documents are to be submitted to the Society with the application form specified in <b>10.2.1</b>. ((1) and (2) are omitted.)</p> <p><b>10.3 Factory Acceptance Test</b></p> <p>The objective of factory acceptance test is to demonstrate by testing and/or analytic evaluation that the computer-based system complies with applicable requirements in <b>Chapter 4, Part X of the Rules for the Survey and Construction of Steel Ships</b>. The survey and factory acceptance test is to be carried out at the supplier’s premises or at other works having the adequate apparatus for testing and inspection. After completed plan approval and survey/factory acceptance test, the Society will issue a System certificate that is to accompany the computer-based system upon delivery to the system integrator.</p> <p><b>10.4 Approval</b></p> <p><b>10.4.1 Certificate</b></p> <p>When the results of the examinations of submitted drawings and data and the tests specified in <b>10.2</b> and <b>10.3</b> are confirmed appropriate, the Society approves the computer based system (hereinafter referred to as “approved computer</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p> <p>Change in description</p>

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<p>based system”) and issues the relevant approval certificate <u>specifying the approval number, date and conditions, etc.</u></p> <p><b>10.4.2 Validity of Approval</b>  The <u>approval</u> certificate specified in 10.4.1 is to be valid until a date not exceeding <i>5 years</i> from its date of issue. However, when the approval is renewed in accordance with 10.4.3, the new <u>approval</u> certificate is to be valid until a date not exceeding <i>5 years</i> from the date of expiry of the existing <u>approval</u> certificate.</p> <p><b>10.4.3 Renewal of Approval</b>  <b>1</b> In the case of application for renewal of approval, the manufacturer is to submit to the Society the appropriate application form (<i>Form 7-10</i>) accompanied with a copy of the <u>approval</u> certificate previously issued. The changes in particulars of the approved computer based system, quality system of manufacturer, etc., if any, are to be described in the application.  <b>2</b> When the particulars of the approved computer based system, quality system of manufacturer, etc. remain unchanged, the Society approves the renewal of approval and issues a new <u>approval</u> certificate. The manufacturer who received the new <u>approval</u> certificate is to return the existing <u>approval</u> certificate to the Society as soon as possible.</p>	<p>based system”) and issues the relevant approval certificate.</p> <p><b>10.4.2 Validity of Approval</b>  The certificate specified in 10.4.1 is to be valid until a date not exceeding <i>5 years</i> from its date of issue. However, when the approval is renewed in accordance with 10.4.3, the new certificate is to be valid until a date not exceeding <i>5 years</i> from the date of expiry of the existing certificate.</p> <p><b>10.4.3 Renewal of Approval</b>  <b>1</b> In the case of application for renewal of approval, the manufacturer is to submit to the Society the appropriate application form (<i>Form 7-10</i>) accompanied with a copy of the certificate previously issued. The changes in particulars of the approved computer based system, quality system of manufacturer, etc., if any, are to be described in the application.  <b>2</b> When the particulars of the approved computer based system, quality system of manufacturer, etc. remain unchanged, the Society approves the renewal of approval and issues a new certificate. The manufacturer who received the new certificate is to return the existing certificate to the Society as soon as possible.</p>	<p>Change in description</p> <p>Change in description</p>

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<p><b>10.5 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p><b>10.5.1 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p>1 In cases where the particulars of the approved computer based system, quality system of manufacturer, etc. are intended to be changed, the manufacturer is to submit to the Society the appropriate application form for changes (<i>Form 7-10</i>) accompanied with the following documents.</p> <p>(1) explanatory notes for changes,  (2) necessary drawings and data, and  (3) copy of the <u>approval</u> certificate previously issued.</p> <p>3 When confirmation tests are carried out, the manufacturer is to produce a report of the test and is to submit <u>it</u> to the Society upon receiving confirmation from the Society’s surveyor.</p> <p>4 When the results of the examination for documents and the confirmation test specified in -1 to -3 are confirmed to be satisfactory, the Society reissues the certificate with contents duly revised. The manufacturer who received the new <u>approval</u> certificate is to return the existing certificate to the Society as soon as possible.</p> <p>5 In the case specified in -4, the validity of the <u>approval</u> certificate is not changed in principle.</p>	<p><b>10.5 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p><b>10.5.1 Changes in Particulars of Approved Computer Based System, Quality System of Manufacturer, etc.</b></p> <p>1 In cases where the particulars of the approved computer based system, quality system of manufacturer, etc. are intended to be changed, the manufacturer is to submit to the Society the appropriate application form for changes (<i>Form 7-10</i>) accompanied with the following documents.</p> <p>(1) explanatory notes for changes (<u>three copies</u>),  (2) necessary drawings and data (<u>three copies each</u>), and  (3) <u>a</u> copy of the certificate previously issued.</p> <p>3 When confirmation tests are carried out, the manufacturer is to produce a report of the test and is to submit three copies to the Society upon receiving confirmation from the Society’s surveyor.</p> <p>4 When the results of the examination for documents and the confirmation test specified in -1 to -3 are confirmed to be satisfactory, the Society reissues the certificate with contents duly revised. The manufacturer who received the new certificate is to return the existing certificate to the Society as soon as possible.</p> <p>5 In the case specified in -4, the validity of the certificate is not changed in principle.</p>	<p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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<p><b>10.6 Revocation of Approval</b></p> <p><b>10.6.1 Revocation of Approval</b></p> <p>1 In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on the requirements in this chapter. In such cases, the Society is to notify the manufacturer of the revocation.</p> <p>(1) Where the result of the confirmation tests were found unsatisfactory.</p> <p>(2) Where the valid term of the <u>approval</u> certificate has expired.</p> <p>(3) Where the confirmation test was not carried out without any unavoidable reason.</p> <p>(4) Where withdrawal of the approval has been offered by the manufacturer.</p> <p>(5) Where the Society judged the approved computer based system to be unsuitable in the light of the service records of the shipboard automation equipment.</p> <p>2 The manufacturer who received a notice of revocation of approval is to return the <u>approval</u> certificate of the relevant computer based system to the Society immediately.</p> <p><b>10.7 Markings</b></p> <p><b>10.7.1 Markings</b></p> <p>Manufacturers of the <u>type</u> approved computer based systems are, in principle, to mark their products before shipment for identification of approved equipment; in addition, at least the following items to be marked at a suitable</p>	<p><b>10.6 Revocation of Approval</b></p> <p><b>10.6.1 Revocation of Approval</b></p> <p>1 In cases where any of the following (1) to (5) is applicable, the Society may revoke approval based on the requirements in this chapter. In such cases, the Society is to notify the manufacturer of the revocation.</p> <p>(1) Where the result of the confirmation tests were found unsatisfactory.</p> <p>(2) Where the valid term of the certificate has expired.</p> <p>(3) Where the confirmation test was not carried out without any unavoidable reason.</p> <p>(4) Where withdrawal of the approval has been offered by the manufacturer.</p> <p>(5) Where the Society judged the approved computer based system to be unsuitable in the light of the service records of the shipboard automation equipment.</p> <p>2 The manufacturer who received a notice of revocation of approval is to return the certificate of the relevant computer based system to the Society immediately.</p> <p><b>10.7 Markings</b></p> <p><b>10.7.1 Markings</b></p> <p>Manufacturers of the approved computer based systems are, in principle, to mark their products before shipment for identification of approved equipment; in addition, at least the following items to be marked at a suitable</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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<p>place:</p> <ol style="list-style-type: none"> <li>(1) Manufacturer name or equivalent</li> <li>(2) Type No. or symbol</li> <li>(3) Serial No. and date of manufacture</li> <li>(4) Particulars or ratings</li> <li>(5) Approval number</li> </ol> <p><b>Part 8 TYPE <u>APPROVAL</u> OF ELECTRICAL EQUIPMENT AND CABLES</b></p> <p style="text-align: center;"><b>Chapter 1 GENERAL</b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>  The requirements in this part apply to tests and inspection for the type <u>approval</u> of electrical equipment and cables specified in 1.1.3 in accordance with the requirements of 1.2.1-4, Part H of the Rules for the Survey and Construction of Steel Ships (hereinafter referred to as “the Rules”).</p> <p><b>1.1.2 Definitions</b>  The type <u>approved</u> products are those certified that they have passed through the type <u>approval</u> tests specified in Chapter 2 to 7.</p>	<p>place:</p> <ol style="list-style-type: none"> <li>(1) Manufacturer name or equivalent</li> <li>(2) Type No. or symbol</li> <li>(3) Serial No. and date of manufacture</li> <li>(4) Particulars or ratings</li> <li>(5) Approval number</li> </ol> <p><b>Part 8 TYPE <u>TESTS</u> OF ELECTRICAL EQUIPMENT AND CABLES</b></p> <p style="text-align: center;"><b>Chapter 1 GENERAL</b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>  The requirements in this part apply to tests and inspection for the type <u>test</u> of electrical equipment and cables specified in 1.1.3 in accordance with the requirements of 1.2.1-4, Part H of the Rules for the Survey and Construction of Steel Ships (hereinafter referred to as “the Rules”).</p> <p><b>1.1.2 Definitions</b>  The type <u>tested</u> products are those certified that they have passed through the type tests specified in Chapter 2 to 7.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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<p><b>1.1.3 Articles</b></p> <p>Electrical equipment cables subject to the type <u>approval</u> are to be as follows.</p> <p>(1) Fuses Cartridge type fuses (renewable and non-renewable) and plug type fuses.</p> <p>(2) Circuit breakers Low-voltage breakers, air circuit breakers and molded case circuit breakers (including molded case circuit breakers with fuses and molded case circuit breakers used for the protection of induction motors simultaneously. Hereinafter, these are referred to as “molded case circuit breakers” unless otherwise specified.).</p> <p>(3) Electromagnetic contactors Electromagnetic contactors used for motors and other loads.</p> <p>(4) Explosion protected electrical equipment Electrical equipment specified in <b>2.16.2, Part H of the Rules for the Survey and Construction of Steel Ships</b> used in the spaces on board flammable or explosive gas or vapour (hereinafter referred to as explosive gas) exists or may exist in the atmosphere.</p> <p>(5) Cables</p> <p>(a) Cables used power circuits, lighting circuits, supply and distribution circuits of interior-communication, control circuits, etc.</p> <p>(b) Flexible cords used for power supply and distribution circuits.</p> <p>(c) 150 V multicore PVC insulated cables for</p>	<p><b>1.1.3 Articles</b></p> <p>Electrical equipment cables subject to the type <u>test</u> are to be as follows.</p> <p>(1) Fuses Cartridge type fuses (renewable and non-renewable) and plug type fuses.</p> <p>(2) Circuit breakers Low-voltage breakers, air circuit breakers and molded case circuit breakers (including molded case circuit breakers with fuses and molded case circuit breakers used for the protection of induction motors simultaneously. Hereinafter, these are referred to as “molded case circuit breakers” unless otherwise specified.).</p> <p>(3) Electromagnetic contactors Electromagnetic contactors used for motors and other loads.</p> <p>(4) Explosion protected electrical equipment Electrical equipment specified in <b>2.16.2, Part H of the Rules for the Survey and Construction of Steel Ships</b> used in the spaces on board flammable or explosive gas or vapour (hereinafter referred to as explosive gas) exists or may exist in the atmosphere.</p> <p>(5) Cables</p> <p>(a) Cables used power circuits, lighting circuits, supply and distribution circuits of interior-communication, control circuits, etc.</p> <p>(b) Flexible cords used for power supply and distribution circuits.</p> <p>(c) 150 V multicore PVC insulated cables for</p>	<p>Terminology alignment</p>

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<p>electronic equipment.</p> <p>(6) Semiconductor converters for power Semiconductor converters for power for which type <u>approval</u> are required by relevant requirements</p> <p><b>1.2 <u>Approval Application</u></b></p> <p><b>1.2.1 <u>Approval Application Form</u></b></p> <p><b>1</b> The manufacturer who intends to obtain the type <u>approval</u> by the Society is to submit the appropriate application form (<b>Form 8-1</b>) stating names, types, ratings, specifications, service applications, applicable standards, etc. of the products concerned together with drawings and documents necessary for examinations and test plans.</p> <p><b>2</b> In case where items of the approval tests are intended to be partially or fully omitted appropriate certificate or technical records concerned are to be submitted to the Society as well. In addition, the application is, in principle, to be prepared for each type.</p> <p><b>1.2.2 <u>Documents</u></b></p> <p><b>1</b> <u>The drawings and documents necessary for examinations listed in the following (1) to (7) are to be submitted together with the application form specified in 1.2.1.</u></p> <p><u>(1) Specifications</u></p> <p><u>(2) Drawings and documents necessary for examinations</u></p> <p><u>(3) Approval test plan (the place of test and scheduled date of test are to be entered)</u></p>	<p>electronic equipment.</p> <p>(6) Semiconductor converters for power Semiconductor converters for power for which type <u>tests</u> are required by relevant requirements</p> <p><b>1.2 <u>Application Procedures</u></b></p> <p><u>The application procedures are to be as follows:</u></p> <p><b>(1)</b> The manufacturer who intends to obtain the type <u>tests</u> by the Society is to submit the appropriate application form (<b>Form 8-1</b>) stating names, types, ratings, specifications, service applications, applicable standards, etc. of the products concerned together with <u>three copies each of</u> drawings and documents necessary for examinations and <u>three copies of</u> test plans. In case where items of the type tests are intended to be partially or fully omitted appropriate certificate or technical records concerned are to be submitted to the Society as well. In addition, the application is, in principle, to be prepared for each type.</p> <p><b>(Newly added)</b> (Newly added)</p>	<p>Change in description</p> <p>Change in description</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p> <p>Relocation of the documents specified in 1.2.1-1 Addition of requirements related to quality control</p>



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<p>(4) <u>Data on the summary of test facilities</u></p> <p>(5) <u>Data on outline of manufacturing plant</u></p> <p>(6) <u>Information on the manufacturing and quality control standards</u></p> <p>(7) <u>Records of manufacture and delivery (if any)</u></p> <p><b>2</b> As for explosion protected electrical equipment, drawings and documents required to be submitted are as follows. Items (4), (5) and (6) are, however, required for intrinsically safe type electrical equipment only.</p> <p>(1) Drawings of detailed sectional assembly and arrangement of components</p> <p>(2) List of electrical parts and materials</p> <p>(3) Functional descriptions of explosion-protected constructions</p> <p>(4) Electric circuit diagrams</p> <p>(5) Sectional assembly drawings of transformers with earthed screens and component parts (relays, photo-couplers, etc.) used for maintenance of intrinsic safety</p> <p>(6) Construction drawings and circuit diagrams of safety barriers.</p> <p><b><u>1.3 Preliminary Examination</u></b></p> <p><b><u>1.3.1 Test Plan Approval</u></b></p> <p><u>The Society examines the test plan for approval submitted in accordance with 1.2.2(3), and where deemed appropriate, the plan is approved and returned to the manufacturer. In cases where deemed appropriate after reviewing the documents submitted according to 1.2.2, a part</u></p>	<p>(2) As for explosion protected electrical equipment, drawings and documents required to be submitted are as follows. Items (d), (e) and (f) are, however, required for intrinsically safe type electrical equipment only.</p> <p>(a) Drawings of detailed sectional assembly and arrangement of components</p> <p>(b) List of electrical parts and materials</p> <p>(c) Functional descriptions of explosion-protected constructions</p> <p>(d) Electric circuit diagrams</p> <p>(e) Sectional assembly drawings of transformers with earthed screens and component parts (relays, photo-couplers, etc.) used for maintenance of intrinsic safety</p> <p>(f) Construction drawings and circuit diagrams of safety barriers.</p> <p><b>(Newly added)</b></p>	

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<p>of the approval test may be exempted.</p> <p><b><u>1.3.2 Confirmation of Manufacturing and Quality Control Procedures</u></b>  <u>The Society may carry out surveys of the actual situation of manufacturing plants on the basis of the data submitted according to 1.2.2-1(4) to (7) as deemed necessary. In such cases, manufacturers are to provide the necessary information related to this survey.</u></p> <p><b><u>1.4 Approval Tests</u></b></p> <p><b><u>1.4.1 Test Place</u></b> (Omitted)</p> <p><b><u>1.4.2 Approval Tests</u></b>            Detailed requirements of tests are to be in accordance with <b>Chapters 2 to 7</b> according to the types of equipment. In case where the Society deems necessary, however, additional tests may be requested.</p> <p><b><u>1.5 Approval Certificate</u></b></p> <p><b><u>1.5.1 Submission of Test Records</u></b>            The manufacturer (applicant) is to submit the test records to the Society (Branch Office) immediately after completion of tests.</p> <p><b><u>1.5.2 Issuance of Approval Certificate</u></b>            The Society issues certificates <u>which include the</u></p>	<p><b><u>1.3 Type Tests</u></b></p> <p><b><u>1.3.1 Test Place</u></b> (Omitted)</p> <p><b><u>1.3.2 Type Tests</u></b>            Detailed requirements of <u>type</u> tests are to be in accordance with <b>Chapters 2 to 7</b> according to the types of equipment. In case where the Society deems necessary, however, additional tests may be requested.</p> <p><b><u>1.4 Certificate</u></b></p> <p><b><u>1.4.1 Submission of Test Records</u></b>            The manufacturer (applicant) is to submit <u>three copies each of</u> the test records to the Society (Branch Office) immediately after completion of tests.</p> <p><b><u>1.4.2 Issuance of Certificate</u></b>            The Society issues certificates for the <u>type</u> tested</p>	<p>Addition of requirements related to quality control</p> <p>Terminology alignment</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Terminology alignment</p>

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<p><u>approval number, approval date, approval items etc.</u> for the tested products, where the results of the tests are deemed satisfactory. In this case the test records submitted in accordance with <u>1.5.1</u> is returned to the applicant (through the related local office) after putting the Society’s stamp.</p> <p><b>1.5.3 Term of Validity</b> The term of validity is five <i>years</i> from the date of approval. <u>In cases when the renewal of approval is carried out in accordance with 1.4.4, the valid term will be 5 years from the next day after the expiry date of the previous validity.</u></p> <p><b>1.5.4 Renewal of Approval</b> <b>1</b> <u>Where the renewal of a certificate is intended for each approved product,</u> the manufacturer is to undergo the periodical investigation (<i>see 1.6</i>) after submitting the appropriate application form (<b>Form 8-1</b>) to the Society (Branch Office). <b>2</b> Where the periodical investigation is postponed due to unavoidable reasons, the manufacturer is to submit the appropriate application form (<b>Form 8-1P</b>) to the Society and is to take the steps required by the Society. <b>3</b> Where the periodical investigation has been passed, the Society will re-issue the new <u>approval</u> certificate. Manufacturers are to return the old <u>approval certificate</u> to the Society as soon as possible after receiving the new <u>approval</u> certificate and the term of validity of the old one expires.  <b>4</b> When the validity of the <u>approval</u> certificate is not intended to be renewed, the manufacturer is to notify the Society (Branch Office) in writing and immediately return the</p>	<p>products, where the results of the type tests are deemed satisfactory. In this case, <u>one copy</u> of the test records submitted in accordance with <u>1.4.1</u> is returned to the applicant (through the related local office) after putting the Society’s stamp.</p> <p><b>1.4.3 Term of Validity</b> The term of validity is five <i>years</i> from the date of approval.</p> <p><b>1.4.4 Renewal of Validity</b> <b>1</b> <u>Where the validity of the certificate is intended to be renewed,</u> the manufacturer is to undergo the periodical investigation (<i>see 1.5</i>) after submitting the appropriate application form (<b>Form 8-1</b>) to the Society (Branch Office). <b>2</b> Where the periodical investigation is postponed due to unavoidable reasons, the manufacturer is to submit the appropriate application form (<b>Form 8-1P</b>) to the Society and is to take the steps required by the Society. <b>3</b> Where the periodical investigation has been passed, the Society will re-issue the new certificate, <u>the term of validity of which is five years from the date of expiration for the existing certificate.</u> Manufacturers are to return the old <u>“Certificate of Approval”</u> to the Society as soon as possible after receiving the new certificate and the term of validity of the old one expires. <b>4</b> When the validity of the certificate is not intended to be renewed, the manufacturer is to notify the Society (Branch Office) in writing and immediately return the certificates of</p>	<p></p> <p>Change in description</p> <p>Change in description</p> <p>To delete the specification of the number of copies due to digitization</p> <p>Change in description</p> <p>Change in description</p>

Amended-Original Requirements Comparison Table  
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Amended	Original	Remarks
<p>approval certificates of the products concerned.</p> <p><b>1.6 Periodical Investigation</b></p> <p><b>1.6.1 Place of Investigation</b> (Omitted)</p> <p><b>1.6.2 Tests</b> The periodical investigation is to be in accordance with the requirements specified in <b>1.3 and 1.4</b>. The following test items, however, may be omitted. ((1) to (5) are omitted)</p> <p><b>1.7 Change of Materials and Constructions, etc.</b></p> <p><b>1.7.1 Application for Change</b> Where the particulars, materials of essential parts, construction, dimensions, etc. of the type <u>approved</u> products are intended to change, the manufacturer is to submit the appropriate application form for the change (<b>Form 8-1</b>) and explanatory notes of the change (writing in contrasted form of new and old ones as far as possible) and necessary drawings to the Society. Verification tests may be carried out where deemed necessary in connection with the changes.</p>	<p>the products concerned.</p> <p><b>1.5 Periodical Investigation</b></p> <p><b>1.5.1 Place of Investigation</b> (Omitted)</p> <p><b>1.5.2 Tests</b> <u>Test items and the number of test samples for the</u> periodical investigation are to be in accordance with the requirements specified in <b>1.3</b>. The following test items, however, may be omitted. ((1) to (5) are omitted)</p> <p><b>1.6 Change of Materials and Constructions, etc.</b></p> <p><b>1.6.1 Application for Change</b> Where the particulars, materials of essential parts, construction, dimensions, etc. of the type <u>tested</u> products are intended to change, the manufacturer is to submit the appropriate application form for the change (<b>Form 8-1</b>) and <u>three copies each</u> of explanatory notes of the change (writing in contrasted form of new and old ones as far as possible) and necessary drawings to the Society. Verification tests may be carried out where deemed necessary in connection with the changes.</p>	<p>Change in description</p> <p>Terminology alignment</p> <p>Terminology alignment To delete the specification of the number of copies due to digitization</p>

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<p><b>1.8 Verification Test</b></p> <p><b>1.8.1 Execution of Test</b></p> <p><b>1</b> In case of applying to any of the followings, the verification tests are to be carried out. The tests are, in principle, to be carried out at the manufacturer’s works.</p> <p>(1) Where tests are carried out in accordance with <b>1.7.1</b>.</p> <p>(2) Where doubts occur in the construction, performance, etc. of the type approved products.</p> <p>(3) Where deemed necessary by the Society.</p> <p><b>2</b> (Omitted)</p> <p><b>1.8.2 Submission of Approval Certificate and Test Record</b></p> <p>The manufacturer is to submit a copy of the existing <u>approval</u> certificates and the test records to the Society (Branch Office) immediately after completion of the verification test.</p> <p><b>1.8.3 Renewal of Approval Certificate</b></p> <p>Where verification test records are considered appropriate the Society will issue the new <u>approval</u> certificates. In this case, the existing <u>approval</u> certificate is to be returned to the Society as soon as possible after receiving the new <u>approval</u> certificate.</p>	<p><b>1.7 Verification Test</b></p> <p><b>1.7.1 Execution of Test</b></p> <p><b>1</b> In case of applying to any of the followings, the verification tests are to be carried out. The tests are, in principle, to be carried out at the manufacturer’s works.</p> <p>(1) Where tests are carried out in accordance with <b>1.6.1</b>.</p> <p>(2) Where doubts occur in the construction, performance, etc. of the type tested products.</p> <p>(3) Where deemed necessary by the Society.</p> <p><b>2</b> (Omitted)</p> <p><b>1.7.2 Submission of Certificate and Test Record</b></p> <p>The manufacturer is to submit a copy of the existing certificates and <u>three copies each of</u> the test records to the Society (Branch Office) immediately after completion of the verification test.</p> <p><b>1.7.3 Renewal of Certificate</b></p> <p>Where verification test records are considered appropriate the Society will issue the new certificates. In this case, the existing certificate is to be returned to the Society as soon as possible after receiving the new certificate.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>1.9 Revocation of <u>Approval</u> Certificate</b></p> <p><b>1.9.1 Notice of Revocation</b> Where the results of the periodical investigation or verification tests are found unsatisfactory or where the application for the periodical investigation is not made, the Society will notify the manufacturer of the revocation of the approval through the Branch Office.</p> <p><b>1.9.2 Return of <u>Approval</u> Certificate</b> The manufacturer who received the revocation specified in 1.9.1 is to immediately return the <u>approval</u> certificates concerned to the Society.</p> <p><b>1.10 Treatment of Product after Success in <u>Approval</u> Test</b></p> <p><b>1.10.1 Tests and Inspection of Individual Product</b> (omitted)</p> <p><b>1.11 Markings</b></p> <p><b>1.11.1 Markings</b> The marking of the type <u>approved</u> products are to be in accordance with the Rules and Application Standard (including the manufacturer’s name or equivalent, type No. or code, manufacturing No., year, main particulars and ratings) and in addition, the manufacturer is to mark appropriately to indicate the type <u>approved</u> product.</p>	<p><b>1.8 Revocation of Certificate</b></p> <p><b>1.8.1 Notice of Revocation</b> Where the results of the periodical investigation or verification tests are found unsatisfactory or where the application for the periodical investigation is not made, the Society will notify the manufacturer of the revocation of the approval through the Branch Office.</p> <p><b>1.8.2 Return of Certificate</b> The manufacturer who received the revocation specified in 1.8.1 is to immediately return the <u>certificates</u> concerned to the Society.</p> <p><b>1.9 Treatment of Product after Success in <u>Type</u> Test</b></p> <p><b>1.9.1 Tests and Inspection of Individual Product</b> (Omitted)</p> <p><b>1.10 Markings</b></p> <p><b>1.10.1 Markings</b> The marking of the type <u>tested</u> products are to be in accordance with the Rules and Application Standard (including the manufacturer’s name or equivalent, type No. or code, manufacturing No., year, main particulars and ratings) and in addition, the manufacturer is to mark appropriately to indicate the type <u>tested</u> product.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p align="center"><b>Chapter 2 FUSES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>approval</u> tests of fuses in accordance with the requirements in Chapter 1.</p> <p><b>2.2 <u>Approval</u> Tests</b></p> <p><b>2.2.1 <u>Approval</u> Tests</b> Detailed requirements of the <u>approval</u> test are to be in accordance with IEC 60269 (Low-voltage fuses) or a standard which is deemed appropriate by the Society, amended when necessary for ambient temperature.</p> <p align="center"><b>Chapter 3 CIRCUIT-BREAKERS</b></p> <p><b>3.1 General</b></p> <p><b>3.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>approval</u> tests of circuit-breakers in accordance with the requirements in Chapter 1.</p>	<p align="center"><b>Chapter 2 FUSES</b></p> <p><b>2.1 General</b></p> <p><b>2.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>type</u> tests of fuses in accordance with the requirements in Chapter 1.</p> <p><b>2.2 <u>Type</u> Tests</b></p> <p><b>2.2.1 <u>Type</u> Tests</b> Detailed requirements of the <u>type</u> test are to be in accordance with IEC 60269 (Low-voltage fuses) or a standard which is deemed appropriate by the Society, amended when necessary for ambient temperature.</p> <p align="center"><b>Chapter 3 CIRCUIT-BREAKERS</b></p> <p><b>3.1 General</b></p> <p><b>3.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>type</u> tests of circuit-breakers in accordance with the requirements in Chapter 1.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>3.2 <u>Approval</u> Tests</b></p> <p><b>3.2.1 <u>Approval</u> Tests</b> (Omitted)</p> <p style="text-align: center;"><b>Chapter 4 ELECTROMAGNETIC CONTACTORS</b></p> <p><b>4.1 General</b></p> <p><b>4.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>approval</u> tests of electromagnetic contactors in accordance with the requirements in <b>Chapter 1</b>.</p> <p><b>4.2 <u>Approval</u> Tests</b></p> <p><b>4.2.1 <u>Approval</u> Tests</b> (Omitted)</p>	<p><b>3.2 <u>Type</u> Tests</b></p> <p><b>3.2.1 <u>Type</u> Tests</b> (Omitted)</p> <p style="text-align: center;"><b>Chapter 4 ELECTROMAGNETIC CONTACTORS</b></p> <p><b>4.1 General</b></p> <p><b>4.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>type</u> tests of electromagnetic contactors in accordance with the requirements in <b>Chapter 1</b>.</p> <p><b>4.2 <u>Type</u> Tests</b></p> <p><b>4.2.1 <u>Type</u> Tests</b> (Omitted)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>



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Amended	Original	Remarks
<p style="text-align: center;"><b>Chapter 5    EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT</b></p> <p><b>5.1    General</b></p> <p><b>5.1.1    Scope</b> 1    The requirements in this chapter apply to the <u>approval</u> tests of explosion-protected electrical equipment in accordance with the requirements in <b>Chapter 1</b>.</p> <p><b>5.2    <u>Approval</u> Tests</b></p> <p><b>5.2.1    <u>Approval</u> Tests</b> (Omitted)</p> <p style="text-align: center;"><b>Chapter 6    CABLES</b></p> <p><b>6.1    General</b></p> <p><b>6.1.1    Scope</b> 1    The requirements in this chapter apply to the <u>approval</u> tests of cables in accordance with the requirements in <b>Chapter 1</b>.</p>	<p style="text-align: center;"><b>Chapter 5    EXPLOSION-PROTECTED ELECTRICAL EQUIPMENT</b></p> <p><b>5.1    General</b></p> <p><b>5.1.1    Scope</b> 1    The requirements in this chapter apply to the <u>type</u> tests of explosion-protected electrical equipment in accordance with the requirements in <b>Chapter 1</b>.</p> <p><b>5.2    <u>Type</u> Tests</b></p> <p><b>5.2.1    <u>Type</u> Tests</b> (Omitted)</p> <p style="text-align: center;"><b>Chapter 6    CABLES</b></p> <p><b>6.1    General</b></p> <p><b>6.1.1    Scope</b> 1    The requirements in this chapter apply to the <u>type</u> tests of cables in accordance with the requirements in <b>Chapter 1</b>.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>6.2 <u>Approval</u> Tests</b></p> <p><b>6.2.1 <u>Approval</u> Tests</b> (Omitted)</p> <p><b>Chapter 7 SEMICONDUCTOR CONVERTERS FOR POWER</b></p> <p><b>7.1 General</b></p> <p><b>7.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>approval</u> tests of semiconductor converters for power in accordance with the requirements in <b>Chapter 1</b>.</p> <p><b>7.2 <u>Approval</u> Tests</b></p> <p><b>7.2.1 <u>Approval</u> Tests</b> (Omitted)</p>	<p><b>6.2 <u>Type</u> Tests</b></p> <p><b>6.2.1 <u>Type</u> Tests</b> (Omitted)</p> <p><b>Chapter 7 SEMICONDUCTOR CONVERTERS FOR POWER</b></p> <p><b>7.1 General</b></p> <p><b>7.1.1 Scope</b> 1 The requirements in this chapter apply to the <u>type</u> tests of semiconductor converters for power in accordance with the requirements in <b>Chapter 1</b>.</p> <p><b>7.2 <u>Type</u> Tests</b></p> <p><b>7.2.1 <u>Type</u> Tests</b> (Omitted)</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p style="text-align: center;"><b>Annex 1.3    <u>Schemes for Approval of Manufacturing Process for High Manganese Austenitic Steels</u></b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>  <b>1</b> In accordance 1.1.2, Part 1, this annex applies to tests and inspections for the <u>approval of manufacturing process</u> for high manganese austenitic steels.  <b>2</b> <u>Scheme of the approval of the manufacturing process</u> specified in this annex is for verifying manufacturer capability to provide satisfactory products stably under effective process and production controls.</p>	<p style="text-align: center;"><b>Annex 1.3    <u>Manufacturing Approval Schemes for High Manganese Austenitic Steels</u></b></p> <p><b>1.1 General</b></p> <p><b>1.1.1 Scope</b>  <b>1</b> In accordance 1.1.2, Part 1, this annex applies to <u>tests and inspections for the manufacturing process approval</u> for high manganese austenitic steels.  <b>2</b> <u>The manufacturing approval scheme specified in this annex</u> is for verifying manufacturer capability to provide satisfactory products stably under effective process and production controls.</p>	<p>Terminology alignment</p> <p>Terminology alignment</p> <p>Terminology alignment</p>

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Amended	Original	Remarks
<p><b>Annex 4.1 Tests on Simulated Ballast Tank Condition</b></p> <p><b>1.4 Test Report</b></p> <p>The test report is to include the following information:</p> <ol style="list-style-type: none"> <li>(1) Name of the manufacturer;</li> <li>(2) Date of tests;</li> <li>(3) Product name/identification of both paint and primer (if 4.1.1-2(2), Part 5, including kind of shop primer);</li> <li>(4) Batch number;</li> <li>(5) Data of surface preparation on steel panels, including the following: <ol style="list-style-type: none"> <li>(a) Surface treatment;</li> <li>(b) Water soluble salts limit;</li> <li>(c) Dust; and</li> <li>(d) Abrasive inclusions;</li> </ol> </li> <li>(6) Application data of coating system, including the following: <ol style="list-style-type: none"> <li>(a) Shop primed;</li> <li>(b) Number of coats;</li> <li>(c) Recoat interval*;</li> <li>(d) Dry film thickness (<i>DFT</i>) prior to testing*;</li> <li>(e) Thinner*;</li> <li>(f) Humidity*;</li> <li>(g) Air temperature* ; and</li> <li>(h) Steel temperature;</li> </ol> </li> </ol> <p>(Remark) * Both of actual specimen data and manufacturer's requirement/recommendation.</p> <ol style="list-style-type: none"> <li>(7) Test results according to 1.2; and</li> </ol>	<p><b>Annex 4.1 Tests on Simulated Ballast Tank Condition</b></p> <p><b>1.4 Test Report</b></p> <p>The test report is to include the following information:</p> <ol style="list-style-type: none"> <li>(1) Name of the manufacturer;</li> <li>(2) Date of tests;</li> <li>(3) Product name/identification of both paint and primer (if 4.1.1-2(2), Part 4, including kind of shop primer);</li> <li>(4) Batch number;</li> <li>(5) Data of surface preparation on steel panels, including the following: <ol style="list-style-type: none"> <li>(a) Surface treatment;</li> <li>(b) Water soluble salts limit;</li> <li>(c) Dust; and</li> <li>(d) Abrasive inclusions;</li> </ol> </li> <li>(6) Application data of coating system, including the following: <ol style="list-style-type: none"> <li>(a) Shop primed;</li> <li>(b) Number of coats;</li> <li>(c) Recoat interval*;</li> <li>(d) Dry film thickness (<i>DFT</i>) prior to testing*;</li> <li>(e) Thinner*;</li> <li>(f) Humidity*;</li> <li>(g) Air temperature* ; and</li> <li>(h) Steel temperature;</li> </ol> </li> </ol> <p>(Remark) * Both of actual specimen data and manufacturer's requirement/recommendation.</p> <ol style="list-style-type: none"> <li>(7) Test results according to 1.2; and</li> </ol>	

**Amended-Original Requirements Comparison Table**  
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Amended	Original	Remarks
(8) Judgment according to 1.3.	(8) Judgment according to 1.3.	
EFFECTIVE DATE AND APPLICATION		
<ol style="list-style-type: none"> <li>1. The effective date of the amendments is 1 July 2026.</li> <li>2. Notwithstanding the amendments, the current requirements apply to Materials and Equipment for Marine Use for which the application for approval is submitted to the Society before the effective date.</li> </ol>		

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