

# GUIDANCE FOR THE APPROVAL AND TYPE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE

**Guidance for the Approval and Type Approval of Materials and Equipment for  
Marine Use** **2014 AMENDMENT NO.1**

Notice No.15      26th February 2014  
Resolved by Technical Committee on 29th July 2013

**ClassNK**  
NIPPON KAIJI KYOKAI

Notice No.15 26th February 2014

## AMENDMENT TO THE GUIDANCE FOR THE APPROVAL AND TYPE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE

“Guidance for the approval and type approval of materials and equipment for marine use” has been partly amended as follows:

### Amendment 1-1

## Part 1 METALLIC MATERIALS

### Chapter 1 APPROVAL OF MANUFACTURING PROCESS OF ROLLED STEELS

#### 1.2 Approval Application

##### 1.2.2 Documents to be Submitted

Sub-paragraph -1(2) has been amended as follows.

**1** Three copies each of the documents given in **(1)** and **(2)** are to be submitted together with the approval application form specified in **1.2.1**.

(1) Approval test plan

(2) Technical data given in the following **(a)** through **(k)**

((a) to (j) are omitted)

(k) Additional documents related to the approval of the manufacturing process of corrosion resistant steel for cargo oil tanks specified in **3.13, Part K of the Rules for the Survey and Construction of Steel Ships**

(i) Test plan for the corrosion resistance test for cargo oil tanks (including the timing of the Surveyor’s presence)

(ii) Details of test equipment and test environment

(iii) Technical data for assessment criteria of the chemical composition range of elements to be added for improving the corrosion resistance for pre-shipment inspection

(iv) Technical background of the chemical composition range described in **(iii)** above

(v) The grades, brand names and maximum thickness of the corrosion resistant steel for cargo oil tanks

(vi) The welding consumables (The brand names and the approval certificate numbers) of the welding consumables to be applied and the welding methods to be applied

((l) and (m) are omitted)

Table 1.1-3 has been amended as follows.

Table 1.1-3 Approval Testing Method and Acceptance Criteria

Approval test item		Selected location of test samples (1)(2)	Length direction of test specimen (3)	Testing method		Acceptance criteria
(Omitted)	(Omitted)	(Omitted)	(Omitted)	(Omitted)		(Omitted)
Non-destructive test	Ultrasonic test or Eddy current test	All surface	—	Stainless crad steels	<i>JIS G 0601</i> or equivalent method.	To meet the requirements of class <i>F</i> of <i>JIS G 0601</i>
				Steel with consideration for thickness directional characteristics	In accordance with the requirements in <b>Chapter 3, Part K of the Rules.</b>	In accordance with the requirements in <b>Chapter 3, Part K of the Rules.</b>
				Round bars for chains	<i>JIS G 0801</i> and <i>JIS G 0202</i> or equivalent method.	To be free from any defects deemed to have negative effect.
Corrosion resistance test for cargo oil tanks <sup>(20)(21)</sup>		Top	—	In accordance with the requirements in <b>Annex 1.1.</b>		In accordance with the requirements in <b>Annex 1.1.</b>

Notes :

- (1) In case of ingot casting, “Top” means edge of top side of ingot for length direction specified in **1.4.2-1(2)**, “Bottom” means edge of another side. In case of continuous casting, any edge is available of both edge for length direction specified in **1.4.2-1(2)**.
- (2) to (19) are omitted.)
- (20) The chemical composition of test specimens for corrosion resistance test for cargo oil tanks is to be set in accordance with the documents specified in **1.2.2** to make it possible to confirm the validity of the chemical composition range (upper limit, lower limit) of the elements to be added for improving the corrosion resistance.
- (21) With respect to corrosion resistance tests for cargo oil tanks, IACS Unified Interpretation SC258 as amended is to be applied in addition to **Annex 1.1.**

## 1.5 Approval

### 1.5.1 Notification and Announcement of Approval

Sub-paragraph -2(4) has been amended as follows.

**2** Notwithstanding -1 above, for 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 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 “Type Approval Certificate” 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) Brands name and approval number
- (2) Chemical composition range (additive elements for ensuring corrosion resistance) and corrosion resistance process of the steel
- (3) Maximum thickness
- (4) Applicable welding consumables (the brand names and the approval certificate numbers) and welding methods
- (5) Applicable area

# Part 8 TYPE TESTS OF ELECTRICAL EQUIPMENT AND CABLES

## Chapter 1 GENERAL

### 1.1 General

Paragraph 1.1.3 has been amended as follows.

#### 1.1.3 Articles

Electrical equipment cables subject to the type test are to be as follows.

- (1) Fuses  
Cartridge type fuses (renewable and non-renewable) and plug type fuses ~~used for the protection of the electric circuits of 500 V a.c. or below in frequency of 50 Hz or 60 Hz or 250 V d.c. or below.~~
- (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.) ~~used for protection of the electric circuits of 500 V a.c. or below (rated operational voltage) of 50 Hz or 60 Hz in frequency or 500 V d.c. or below.~~
- (3) Electromagnetic contactors  
Electromagnetic contactors used for motors and other loads ~~connected to the electric circuits of 500 V a.c. or below (rated operational voltage) of 50 Hz or 60 Hz in frequency or 500 V d.c. or below.~~
- (4) Explosion protected electrical equipment  
Electrical equipment of the flameproof type, intrinsically safe type, increased safety type and pressurized protected type (limited to sealed type) 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.
- (5) Cables
  - (a) Cables used power circuits, lighting circuits, supply and distribution circuits of interior-communication, control circuits, etc.
  - (b) Flexible cords used for power supply and distribution circuits.
  - (c) 150 V multicore PVC insulated cables for electronic equipment.

#### EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 26 February 2014.

## **Part 4 NON-METALLIC MATERIALS AND COATING MATERIALS FOR HULL**

Chapter 6 has been added as follows.

### **Chapter 6 APPROVAL OF AIRBORNE SOUND INSULATION PROPERTIES OF MATERIALS USED FOR BULKHEADS AND DECKS**

#### **6.1 General**

##### **6.1.1 Scope**

The requirements of this chapter apply to the tests and inspections for the approval of the airborne sound insulation properties of materials used for bulkheads and decks in accordance with the requirements of 5.2, Annex B2.3.1-1(11) “PROCEDURES FOR ON BOARD NOISE MEASUREMENTS”, Part B of the Guidance.

#### **6.2 Application Procedures**

##### **6.2.1 Procedures**

An application for approval (Form 4-10) accompanied by 3 copies each of the documents specified in 6.2.3 is to be submitted to the Society (Head Office).

##### **6.2.2 Applicant**

Material manufacturers are to be the applicant for type approval except in cases where the applicant, not the manufacturer, is ultimately responsible for the quality of the products.

##### **6.2.3 Submission of Attached Documents to the Application**

The following data are to be attached to the application for approval:

- (1) Company history
- (2) Outline of the works and equipment
- (3) If applicable, documents (a copy of the certificate or the document of compliance) on the quality control system of the company (both of the applicant and the manufacturer)
- (4) Component materials
- (5) Product specifications (including detail drawings and standard working plan)
- (6) Test procedures for airborne sound insulation properties (including test site and test method, etc.)
- (7) Service records
- (8) Marking method (labels, etc.)
- (9) Other items which the Society considers necessary

#### **6.2.4 Omission of Accompanying Data**

1 Data for component materials, manufacturing processes, work standards, etc. which are considered to be the proprietary knowledge of the manufacturer may be exempted from submission subject to a statement to that effect. These data, however, may be required if the Society considers it necessary.

2 The company history, outline of the works and equipments, method of quality control, method of quality assurance, etc. which are the same in content as those submitted on the occasion of the approval of other materials need not be submitted. These data, however, may be required if the Society considers it necessary.

3 When the manufacturer desires to be exempted from submission of the required data, a request stating the reasons thereof is to be submitted.

### **6.3 Confirmation of Manufacturing and Quality Control Procedures**

#### **6.3.1 Confirmation of Manufacturing and Quality Control Procedures**

1 A confirmatory survey of manufacturing and quality control procedures is to be carried out after the examination of the documents submitted as part of the application for approval.

2 A confirmatory survey of manufacturing and quality control procedures is to be carried out to examine whether the manufacturer has sufficient capability (facilities, personnel, engineering, etc.) to manufacture the materials for which approval is being applied for continuously with a uniform quality level.

3 Confirmatory surveys may be exempted if the relevant materials are being manufactured in the same facilities and using a process considered to be almost the same as those for materials approved in the past or if the Society considers it unnecessary. When the applicant desires an exemption from confirmatory surveys, a request stating the reasons thereof is to be submitted together with the application for approval.

#### **6.3.2 Exemption of Confirmation Surveys**

Confirmation survey may be exempted if the Society deems it unnecessary as a result of an examination of the documents submitted.

### **6.4 Approval Tests**

#### **6.4.1 General**

1 The approval tests specified in 6.4.2 are to be carried out in the presence of a Society surveyor in cases where the submitted documents are considered acceptable.

2 The test is to be carried out at a laboratory in accordance with ISO 10140-2:2010, and two copies of the test record are to be submitted to the Society.

#### **6.4.2 Evaluation Criteria**

Evaluation criteria are to be in accordance with ISO 717-1:1996 as amended (1:2006), Part 1.

## **6.5 Notice of Approval**

### **6.5.1 Notice of Approval**

When the Society is satisfied with the results of the examination of the documents submitted, the confirmatory survey specified in 6.3 and the approval test specified in 6.4, a “Certificate for Approval of Airborne Sound Insulation Properties” is issued by the Society.

### **6.5.2 Validity of Certificate**

The valid term of the Certificate is five *years* from the date of issue.

## **6.6 Marking**

Approved materials are to be identified by a mark showing that they are materials approved by the Society.

## **6.7 Periodical Examinations**

### **6.7.1 Application for Periodical Examinations**

1 Periodical examinations are to be carried out before or on the expiry date of the “Certificate for Approval of Airborne Sound Insulation Properties”.

2 An application (Form 4-11) for a periodical examination is to be made to the Society accompanied by a document describing the Society’s approval number, date of issue of the Certificate and items altered from the original approved conditions, if any.

### **6.7.2 Tests During Periodical Examinations**

At each periodical examination, the examination of the documents submitted, the confirmatory survey specified in 6.3 and the approval tests specified in 6.4 are to be carried out. The confirmatory survey and the approval tests may, however, be exempted when the Society considers them unnecessary.

### **6.7.3 Renewal of the Certificate of Approval**

When the results of the periodical examination are considered acceptable to the Society, the Society issues the “Certificate for Approval of Airborne Sound Insulation Properties” specified 6.5.

### **6.7.4 Notice of Renewal**

1 The Society issues the “Certificate for Approval of Airborne Sound Insulation Properties” which is valid for five *years* 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.

2 When a periodical examination is completed within three *months* before the expiry date of the existing certificate, the new certificate is valid from the date of completion of the periodical examination to a date not exceeding five *years* after the date of expiry of the existing certificate.

## **6.8 Confirmatory Tests**

### **6.8.1 Confirmatory Tests**

A confirmatory test is to be conducted when one of the following conditions occur on an occasion different from the periodical examination.

- (1) In cases where there is some doubt regarding product quality, judging from the service records of the approved materials.
- (2) When the Society recognizes the necessity of the test because of a change in the component materials, the manufacturing process, or the method of intended use of the approved material, etc.
- (3) When the Society considers it necessary.

## **6.9 Revocation of Approval**

### **6.9.1 Revocation of Approval**

Approval may be revoked if one of the following conditions is found relevant:

- (1) Failure of periodical examinations or confirmatory tests
- (2) Not applying for periodical examinations or confirmations without a proper reason
- (3) When the applicant requests that approval be revoked
- (4) When any alteration, intentional or due to unsatisfactory quality control, is made to the approved condition which might cause a change in the quality of product
- (5) When inconsistencies, intentional or accidental, are found between the actual condition of the product and the marking of the product.
- (6) When the fees and expenses of the tests are not paid
- (7) When a situation occurs that causes the Society to deem the renewal of approval to not be appropriate.



Form 4-10

To: Nippon Kaiji Kyokai

Reference No.: \_\_\_\_\_

Date: \_\_\_\_\_

APPLICATION FOR APPROVAL OF AIRBORNE SOUND INSULATION PROPERTIES

Applicant: \_\_\_\_\_

Address: \_\_\_\_\_

Person in charge

Section/Department: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Name: \_\_\_\_\_

We hereby request the approval of the airborne sound insulation properties of the material and attach the following data and information for reference.

Intended Use: \_\_\_\_\_

Type of product: \_\_\_\_\_

Manufacturer's Name: \_\_\_\_\_

Manufacturer's Address: \_\_\_\_\_

Date of Test: \_\_\_\_\_

Attached documents:

Applicant: \_\_\_\_\_  
(signature)

To: Nippon Kaiji Kyokai

Reference No.: \_\_\_\_\_

Date: \_\_\_\_\_

APPLICATION FOR PERIODICAL EXAMINATION OF AIRBORNE SOUND  
INSULATION PROPERTIES

Applicant: \_\_\_\_\_

Address: \_\_\_\_\_

Person in charges

Section/Department: \_\_\_\_\_

Phone No.: \_\_\_\_\_

Name: \_\_\_\_\_

We hereby request the periodical examination of the airborne sound insulation properties of the material below and attach the following data and information for reference.

Intended Use: \_\_\_\_\_

Type of Product: \_\_\_\_\_

Manufacturer's Name: \_\_\_\_\_

Manufacturer's Address: \_\_\_\_\_

Date on which Approval was granted: \_\_\_\_\_

Certificate Number: \_\_\_\_\_

Date of Periodical Examination: \_\_\_\_\_

Attached documents:

Applicant: \_\_\_\_\_  
(signature)

EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2014.