CCS Rule Change Notice For:

RULES FOR CLASSIFICATION OF SEA-GOING STEEL SHIPS

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CHINA CLASSIFICATION SOCIETY

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PART ONE

Brief Introduction

1. The description of an interim classification certificate in this rule was deleted.
2. some notations are newly added or revised.

CONTENTS

CHAPTER 2 SCOPE AND CONDITIONS OF CLASSIFICATION

Section 10 CERTIFICATES AND REPORTS

2.10.2 Duration and validity of certificates

~~2.10.2.2 The period of validity of interim classification certificates of (self-propelled and non-self- propelled) ships is not to exceed 5 months.~~

2.10.2.2~~3~~ The period of validity of classification certificates is to be harmonized with that of statutory certificates of the ship as possible.

2.10.2.3~~4~~ When the special survey is completed within three months before the expiry date of the existing certificate, the new classification certificate is to be valid to a date not exceeding five years from the date of expiry of the existing certificate.

2.10.3 Issue and endorsement of classification certificates

2.10.3.1 Upon completion of classification surveys, ~~an interim classification certificate is to be issued by the survey unit.~~

~~2.10.3.2 Upon issue of an interim classification certificate,~~ the survey unit is to ~~submit~~ issue the ~~interim~~ classification certificate together with records, reports and other technical documents to the related department of CCS Headquarters for review and then submitted by the department to the Class Committee and upon approval by the Committee, ~~a classification certificate~~ the final entry into CCS will be ~~issued~~verified by the President of CCS or person(s) authorized by him.

2.10.3.2~~3~~ The classification certificate is to be endorsed by the Surveyor as required after completion of the survey after construction as specified in Chapter 5 of this PART.

2.10.3.3~~4~~ Where a new classification certificate cannot be issued to the ship before the expiry date of the existing classification certificate after completion of the special survey, the existing classification certificate may be endorsed by the Surveyor, which is to be valid within 5 months from its expiry date.

2.10.3.4~~5~~ Upon completion of the special survey, the survey unit is to submit a report and other technical documents to the related department of CCS Headquarters or another designated survey unit for review, and upon satisfactory review a new classification certificate will be issued by the President of CCS or a person authorized by him.

2.10.3.5~~6~~ Notwithstanding the provision of 2.10.2.1, CCS may, when applying 2.10.3.4~~5~~, determine a period of validity less than 5 years for the classification certificate and/or take any other necessary restrictive measure (e.g. service restriction(s) being noted on the newly issued classification certificate), based on a comprehensive consideration of the available information on other aspects of safe operation of the ship (safety inspections by the flag/port State, safety management of the shipping company, etc.). Where the period of validity is shortened, it is to be harmonized with the intervals between classification/statutory surveys so far as practicable and regular reports are to be sent to the Class Committee.

Appendix 1 LIST OF CLASS NOTATIONS FOR SEA-GOING SHIPS

Special Features Notations **Table E**

Class notation	Description		Technical requirements
~~SBFA~~	~~Spectrum-based fatigue analysis~~	~~For fatigue strength assessment of specific route and design fatigue life; the expected service/route may be added after the class notation, for example, where a membrane tank LNG carrier navigates in North Atlantic Ocean is designed for a minimum design fatigue life of 25 years, the class notation of SBFA is SBFA (25, North Atlantic)~~	~~Ch. 8 of Guidelines for Survey of Membrane Tank LNG Carriers~~
SFA	Spectrum-based fatigue assessment	The notation applies to fatigue strength assessment of large membrane tank LNG carriers, container ships and	Guidelines for spectrum-based fatigue

Class notation	Description		Technical requirements
		ore carriers based on spectrum analysis. Class notation SFA (XX, YY) may be assigned to the above-mentioned ship types if assessment is carried out in accordance with 《Guidelines for spectrum-based fatigue assessment of hull structure》 and requirements are met. XX refers to environmental condition (e.g.: NA refers to North Atlantic Ocean, see IACS Rec.34 for scatter diagram), YY refers to design life (year), may be taken as 20, 25, 30, 35 or 40.	assessment of hull structure

Special Equipment and System Notations **Table G**

Class notation	Description		Technical requirements
HMS	Hull monitoring system	This notation may be assigned when only sensors monitoring the global longitudinal stress amidships are installed in the hull monitoring system	Ch. 21, Pt. 8 of the Rules
HMS(x)		This notation may be assigned when not only sensors monitoring the global longitudinal stress amidships are installed in the hull monitoring system, but also sensors/ components monitoring other parameters are selected, where within the brackets there will be letters specifying the selected sensors/components and multiple letters are separated by a comma ",". The following sensors/ components may be selected for the hull monitoring system: Gn: Sensor monitoring the global hull strain Dn: Sensor monitoring the local hull strain On: Sensor monitoring the propulsion shaft(s) output An: Sensor monitoring the axial acceleration Mn: Device for monitoring of hull rigid body motions (six degrees of freedom) Pn: Sensor monitoring the transient sea pressure acting on the hull (slamming) Sn: Sensor monitoring the liquid motion pressures in tanks (sloshing) Tn: Sensor monitoring the temperature Bn: Device for monitoring the wave Wn: Wind sensor Nn: Navigation sensors Cn: Online link to loading computer that is continuously up-dating the loading condition Note: n denotes number of sensors or devices	
HMS-HSC		This notation may be assigned to the hull monitoring system installed on high speed craft	
HMS-ICE	Hull Monitoring and Decision Support System for Operations in Ice	According to the requirements of the Guidelines and related rules, the class notation for monitoring and decision system can be assigned to a ship with ice class which is capable of monitoring stress of structure members in ice belt area during operations in ice and can send a safety alarm when the monitored value and forecasted value approach or exceed safety value, and will provide a suggestion on modification of operation to the Master。	

Class notation	Description		Technical requirements
HMS-ICE(×)		ships with ice class which comply with the requirements for monitoring based on non-standard ice operation mode can be assigned with characters for extended operations as appropriate。 Turn：The monitoring and decision system that can meet the need for monitoring of structural response in ice belt area during turning of ships in ice Glancing：The monitoring and decision system that can meet the need for monitoring of hull girder bending and shear during glancing operation of ships in ice. Oblique：The monitoring and decision system that can meet the need for monitoring of structural response in ice belt area during oblique operation of ships in ice Stern-Ahead：The monitoring and decision system that can meet the need for monitoring of structural response in ice belt area during stern-ahead operation of ships in ice. Shallow-Water：The monitoring and decision system that can meet the need for monitoring of structural response of ship bottom during shallow-water operations of ships in ice.	Guidelines for Hull Monitoring and Decision Support System for Operations in Ice

Special Survey Notations **Table H**

Class notation	Description		Technical requirements
~~TOFD(20%/40%/70%)~~	~~Time of flight diffraction (TOFD)~~	~~When the following welds are tested by TOFD, if the testing percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner.~~ ~~TOFD(20%): the percentage of welds inspected by TOFD is more than 20%.~~ ~~TOFD(40%): the percentage of welds inspected by TOFD is more than 40%.~~ ~~TOFD(70%): the percentage of welds inspected by TOFD is more than 70%.~~ ~~Survey extent of container ships: all block-to-block butt joints of all upper flange longitudinal structural members in the cargo hold region (thickness≥35 mm), including the topmost strakes of the inner hull/bulkhead, the sheer strake, main deck, coaming plate, coaming top plate, and all attached longitudinal stiffeners.~~ ~~Survey extent of ore carriers: butt welds of the main deck in the cargo area (thickness≥35 mm).~~ ~~Survey extent of LNG and LPG carriers: full penetration welds of integral tanks or independent tanks, excluding membrane tanks weld and fillet weld~~	~~Guidelines for the Application of Time-of-Flight Diffraction (TOFD) and Phased Array Ultrasonic Testing (PAUT) Techniques~~
~~PAUT(20%/40%/70%)~~	~~Phased array ultrasonic testing (PAUT)~~	~~When the following welds are tested by PAUT, if the testing percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner.~~ ~~PAUT(20%): the percentage of welds inspected by PAUT is more than 20%.~~ ~~PAUT(40%): the percentage of welds inspected by PAUT is more than 40%.~~ ~~PAUT (70%): the percentage of welds inspected by PAUT is more than 70%.~~ ~~Survey extent of container ships: all block-to-block butt joints of all upper flange longitudinal structural members in the cargo hold region (thickness≥35 mm), including the topmost strakes of the inner hull/bulkhead, the sheer strake, main deck, coaming plate, coaming top plate, and all attached longitudinal stiffeners.~~	~~Guidelines for the Application of Time-of-Flight Diffraction (TOFD) and Phased Array Ultrasonic Testing (PAUT) Techniques~~

Class notation	Description		Technical requirements
		~~Survey extent of ore carriers: butt welds of the main deck in the cargo area (thickness≥35 mm); full penetration welds between the longitudinal bulkhead and inner bottom plating; full penetration weld connections between lower stool and the inner bottom plating; full penetration weld connections between the lower stool slope plate and lower stool shelf plate; full penetration weld connections between the lower stool shelf plate and transverse bulkhead.~~ ~~Survey extent of LNG and LPG carriers: full penetration welds of integral tanks or independent tanks, excluding membrane tanks~~	
~~TOFD/PAUT(20%/40%/70%)~~	~~Combined Inspection of time-of-flight diffraction (TOFD) Technique and phased array ultrasonic testing (PAUT)~~	~~When the following welds are tested by TOFD/PAUT, if the testing percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner.~~ ~~TOFD/PAUT(20%): the percentage of welds inspected by TOFD/PAUT is more than 20%.~~ ~~TOFD/PAUT(40%): the percentage of welds inspected by TOFD/PAUT is more than 40%.~~ ~~TOFD/PAUT (70%): the percentage of welds inspected by TOFD/PAUT is more than 70%.~~ ~~Survey extent of container ships: all block-to-block butt joints of all upper flange longitudinal structural members in the cargo hold region (thickness≥35 mm), including the topmost strakes of the inner hull/bulkhead, the sheer strake, main deck, coaming plate, coaming top plate, and all attached longitudinal stiffeners. See the figure below.~~ ~~Survey extent of ore carriers: butt welds of the main deck in the cargo area (thickness≥35 mm).~~ ~~Survey extent of LNG and LPG carriers: full penetration welds of integral tanks or independent tanks, excluding membrane tanks weld and fillet weld~~	~~Guidelines for Combined Inspection of Time-of-Flight Diffraction (TOFD) Technique and Phased Array Ultrasonic Testing (PAUT) for Marine Thick Plate Weld Joints~~
TOFD (B**+J**)	Time of flight diffraction (TOFD)	When the following butt welds are tested by TOFD, if the length percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner. TOFD (B**+J**): B** is the percentage of section butt welds tested by TOFD; J** is the percentage of plate butt welds tested by TOFD. The percentage ranges from 20% to 100%, with 10% as the interval, e.g. TOFD(B40%+J20%)……. Container ships: Butt welds of longitudinal members of torsion box and hatch coaming (thickness≥35 mm) Ore carriers: Butt welds of the main deck in the cargo area (thickness≥35 mm) LNG and LPG carriers: Full penetration welds of integral tanks or independent tanks, excluding membrane tanks and fillet welds) Ships intended for low-temperature areas (such as icebreakers and polar research ships): Full penetration butt welds of primary members of the main hull (thickness≥35 mm) Other ships of 150 m and over in length: Butt welds of strength deck plating, side shell, top strake, bilge strake, bottom shell, flat plate keel, inner bottom and longitudinal bulkhead topside tank plating as well as primary members supporting these platings within 0.4L amidships (thickness≥35 mm), butt welds of trunk decks and continuous hatch coamings that can be included in the calculation of hull girder section modulus as well as primary members supporting these platings(thickness≥35 mm):	Guidelines for the Application of Time-of-Flight Diffraction (TOFD) and Phased Array Ultrasonic Testing (PAUT) Techniques

Class notation	Description		Technical requirements
PAUT-Butt(B**+J**)	Phased array ultrasonic testing (PAUT),for butt welds	When the following butt welds are tested by PAUT, if the length percentage complies with the following requirements, the corresponding notations may be assigned upon application by the ship owner. PAUT-Butt(B**+J**): B** is the percentage of section butt welds tested by PAUT; J** is the percentage of plate butt welds tested by PAUT. The percentage ranges from 20% to 100%, with 10% as the interval, e.g. PAUT-BUTT (B40%+J20%)……. Container ships: Butt welds of longitudinal members of torsion box and hatch coaming (thickness≥35 mm) Ore carriers: Butt welds of the main deck in the cargo area (thickness≥35 mm) LNG and LPG carriers: Full penetration welds of integral tanks or independent tanks, excluding membrane tanks and fillet welds) Ships intended for low-temperature areas (such as icebreakers and polar research ships): Full penetration butt welds of primary members of the main hull (thickness≥35 mm) Other ships of 150 m and over in length: Butt welds of strength deck plating, side shell, top strake, bilge strake, bottom shell, flat plate keel, inner bottom and longitudinal bulkhead topside tank plating as well as primary members supporting these platings within 0.4L amidships (thickness≥35 mm), butt welds of trunk decks and continuous hatch coamings that can be included in the calculation of hull girder section modulus as well as primary members supporting these platings(thickness≥35 mm)	Guidelines for the Application of Time-of-Flight Diffraction (TOFD) and Phased Array Ultrasonic Testing (PAUT) Techniques
PAUT-Fillet (**)	Phased array ultrasonic testing (PAUT), for fillet welds	For bulk carriers (ore carriers), if the length percentage of the following fillet welds tested by PAUT complies with the requirements, the corresponding notations may be assigned upon application by the ship owner. PAUT-Fillet (**)：** is the percentage of full penetration fillet welds ranging from 20% to 100%, with 10% as the interval, e.g. PAUT-Fillet (20%), PAUT-Fillet (30%)……. Range: Full penetration welds between the hopper tank plating of bulk carriers/longitudinal bulkhead of ore carriers and inner bottom plating; full penetration weld connections between lower stool and the inner bottom plating; full penetration weld connections between the lower stool slope plate and lower stool shelf plate; full penetration weld connections between the lower stool shelf plate and transverse bulkhead.	Guidelines for the Application of Time-of-Flight Diffraction (TOFD) and Phased Array Ultrasonic Testing (PAUT) Techniques

CHAPTER 5 SURVEYS AFTER CONSTRUCTION

Section 14 INITIAL CLASSIFICATION SURVEYS OF SHIPS CONSTRUCTED NOT UNDER THE SUPERVISION OF CCS

5.14.1 General requirements

5.14.1.3 Whenever CCS is requested by an owner to accept the transfer of class for a ship and the losing Society is the Society accepted by CCS, CCS is to immediately notify the owner in writing that:

(1) the relevant surveys specified in 5.14.3.1 are required to be satisfactorily completed for entry into class;

(2) for ships less than 15 years of age, an ~~Interim~~ Certificate of Class can be issued only after CCS has completed:

① all overdue surveys; and

② all overdue recommendations/conditions of class previously issued against the ship as specified to the owner by the losing Society;

(3) for ships 15 years of age and over, an ~~Interim~~ Certificate of Class can be issued only after confirmation by CCS that the losing Society has completed:

① all overdue surveys; and

② all overdue recommendations/conditions of class previously issued against the ship;

(4) any outstanding recommendations/conditions of class are to be dealt with by their due dates;

(5) the principles given in items (1), (2) and (3) above apply to any additional recommendations/conditions of class issued against the ship arising from surveys which were not included in the initial survey status provided by the losing Society because the surveys were carried out in close proximity to the request for transfer of class. Such additional recommendations/conditions of class if received after the issuance of the Interim Certificate of Class by CCS and which are overdue are to be dealt with at the first port of call by the relevant Society depending on the age of the ship;

(6) copies of the plans listed in this Section are to be provided to CCS as a prerequisite to the final entry into CCS ~~obtaining a full term Class Certificate~~.

Appendix 16 GUIDELINES FOR SURVEY OF PLANNED MAINTENANCE SCHEME（PMS）FOR MACHINERY

2 Procedural Requirements

2.5 Assignment of class notation

2.5.2 After the confirmation, the survey unit may issue an ~~interim~~ classification certificate to the ship, and recommending that the PMS notation be assigned by CCS Headquarters ~~and RA report issued at the same time. A full-term certificate will be issued by the Headquarters in accordance with the interim certificate~~.