

# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

**Part R**

**Fire Protection, Detection and Extinction**

**Rules for the Survey and Construction of Steel Ships**

**Part R**

**2016 AMENDMENT NO.1**

**Guidance for the Survey and Construction of Steel Ships**

**Part R**

**2016 AMENDMENT NO.1**

Rule No.40 / Notice No.39      30th June 2016

Resolved by Technical Committee on 5th February 2016

Approved by Board of Directors on 22nd February 2016

**ClassNK**  
NIPPON KAIJI KYOKAI

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# **RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**RULES**

**Part R**

**Fire Protection, Detection and  
Extinction**

## **2016 AMENDMENT NO.1**

Rule No.40      30th June 2016

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Approved by Board of Directors on 22nd February 2016

Rule No.40 30th June 2016

AMENDMENT TO THE RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

“Rules for the survey and construction of steel ships” has been partly amended as follows:

**Part R FIRE PROTECTION, DETECTION AND EXTINCTION**

Amendment 1-1

**Chapter 14 OPERATIONAL READINESS AND MAINTENANCE**

**14.2 Operational Readiness and Maintenance**

**14.2.2 Maintenance, Testing and Inspections**

Sub-paragraph -1 has been amended as follows.

**1** Maintenance, testing and inspections are to be carried out based on the Revised Guidelines for the Maintenance and Inspection of Fire Protection Systems and Appliances (*MSC.1/Circ.1432 as amended, including the amendments by MSC.1/Circ.1516*) developed by the *IMO* and in a manner having due regard to ensuring the reliability of fire-fighting systems and appliances.

EFFECTIVE DATE AND APPLICATION (Amendment 1-1)

1. The effective date of the amendments is 30 June 2016.

## Chapter 13 MEANS OF ESCAPE

### 13.4 Means of Escape from Machinery Spaces

Paragraph 13.4.2 has been amended as follows.

#### 13.4.2 Dispensation from Two Means of Escape

In a ship of less than 1,000 *gross tonnage*, the Society may dispense with one of the means of escape required by **13.4.1**, due regard being paid to the dimension and disposition of the upper part of the space. In addition, the means of escape from machinery spaces of category *A* need not comply with the requirement for a protected enclosure listed in **13.4.1(1)**. In the steering gear space, a second means of escape is to be provided when the emergency steering position is located in that space unless there is direct access to the open deck.

Paragraph 13.4.3 has been amended as follows.

#### 13.4.3 Escape from Machinery Spaces other than Those of Category *A*

~~1~~ From machinery spaces other than those of category *A*, two escape routes are to be provided except that a single escape route may be accepted for spaces that are entered only occasionally, and for spaces where the maximum travel distance to the door is 5 *m* or less.

~~2~~ ~~In the steering gear space, a second means of escape is to be provided when the emergency steering position is located in that space unless there is direct access to the open deck.~~

### EFFECTIVE DATE AND APPLICATION (Amendment 1-2)

1. The effective date of the amendments is 1 July 2016.
2. Notwithstanding the amendments to the Rules, the current requirements may apply to cargo ships for which the date of contract for construction is before the effective date.

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# **GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS**

**Part R**

**Fire Protection, Detection and  
Extinction**

**GUIDANCE**

**2016 AMENDMENT NO.1**

Notice No.39      30th June 2016

Resolved by Technical Committee on 5th February 2016

“Guidance for the survey and construction of steel ships” has been partly amended as follows:

## Part R FIRE PROTECTION, DETECTION AND EXTINGUISHMENT

### Amendment 1-1

## R29 FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS

### R29.2 Engineering Specifications

Paragraph R29.2.4 has been amended as follows.

#### R29.2.4 Installation Requirements

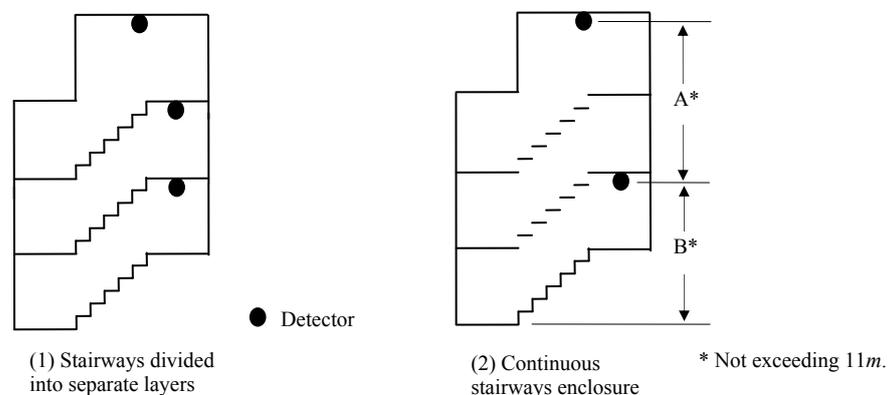
**1** With respect to the requirements of **29.2.4-2(1), Part R of the Rules**, precautions are to be taken on the following items:

((1) and (2) are omitted.)

**2** ~~(2)~~ With respect to the requirements of 29.2.4-2(3), Part R of the Rules, The detectors provided at inside the stairway enclosures are, in principle, to be installed on the ceiling of the upper deck of the two decks which are connected by the stairs (See Fig.R29.2.4-1(1)). However, in cases where the stairway enclosure is continuous throughout the all decks, one detector is to comply with the requirements specified in 29.2.4-2(3), Part R of the Rules and to be located at every intervals not exceeding 11 m may be accepted (See Fig.R29.2.4-1(2)).

Fig.R29.2.4-1 has been added as follows.

Fig. R29.2.4-1 Arrangements of Fire Detectors within Stairway Enclosures



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

1. The effective date of the amendments is 30 June 2016.

## **R5 FIRE GROWTH POTENTIAL**

### **R5.2 Control of Air Supply and Flammable Liquid to the Space**

#### **R5.2.1 Closing Appliances and Stopping Devices of Ventilation**

Sub-paragraph -3 has been added as follows.

3 With respect to the requirements of 5.2.1-2, Part R of the Rules, the fan in a HVAC temperature control unit, or a circulation fan inside a cabinet/switchboard, is not considered to be a ventilation fan, if it is not capable of supplying outside air to the space (e.g., small units intended for re-circulation of air within a cabin). Therefore, such fans need not be capable of being stopped from an easily accessible position outside the space being served.

#### **EFFECTIVE DATE AND APPLICATION (Amendment 1-2)**

1. The effective date of the amendments is 1 July 2016.

## R13 MEANS OF ESCAPE

### R13.4 Means of Escape from Machinery Spaces

Paragraph R13.4.2 has been amended as follows.

#### R13.4.2 Dispensation from Two Means of Escape

1 With respect to the requirements of **13.4.2, Part R of the Rules**, where the second means of escape is dispensed with, the means of escape is, in principle, to be of a protected enclosure.

2 The wording “emergency steering position” specified in 13.4.2, Part R of the Rules means all steering positions other than that in the navigation bridge.

3 With respect to the requirements of 13.4.2, Part R of the Rules, steering gear spaces which do not contain the emergency steering position need to have only one means of escape.

4 With respect to the requirements of 13.4.2, Part R of the Rules, steering gear spaces containing the emergency steering position can have one means of escape provided it leads directly onto the open deck. Otherwise, two means of escape are to be provided but they do not need to lead directly onto the open deck.

5 With respect to the requirements of 13.4.2, Part R of the Rules, escape routes that pass only through stairways and/or corridors that have fire integrity protection equivalent to steering gear spaces are considered as providing a “direct access to the open deck” specified in 13.4.2, Part R of the Rules.

Paragraph R13.4.3 has been amended as follows.

#### R13.4.3 Escape from Machinery Spaces other than those of Category A

1 With respect to the requirements of **13.4.3, Part R of the Rules**, only one set of means of escape may be provided for the spaces which are regarded as those having little or no fire risk specified in **R9.2.3-9**. In this case, the escape route is not to pass through machinery spaces of category *A* and is to be independent of watertight doors. Where a shaft tunnel is provided, an escape route is to be provided at the aft end of the shaft tunnel. (See **Fig. R13.4.3-1**)

2 With respect to the requirements specified in **13.4.3, Part R of the Rules**, doors on escape routes provided in boundaries facing control stations, accommodation or service spaces are, in general, to comply with the requirements of **13.3.1-5, Part R of the Rules**. Details of means of escape except ladders in protected enclosure are to be in accordance with **33.2, Part R of the Rules**.

~~3 The wording “emergency steering position” specified in 13.4.3 2, Part R of the Rules means all steering positions other than that in the navigation bridge.~~

43 With respect to the requirements of **13.4.3, Part R of the Rules**, in machinery spaces other than those of category *A*, which are not entered only occasionally, the travel distance is to be measured from any point normally accessible to the crew, taking into account machinery and equipment within the space.

## EFFECTIVE DATE AND APPLICATION (Amendment 1-3)

1. The effective date of the amendments is 1 July 2016.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to cargo ships for which the date of contract for construction\* is before the effective date.  
\* “contract for construction” is defined in the latest version of IACS Procedural Requirement (PR) No.29.

### IACS PR No.29 (Rev.0, July 2009)

1. The date of “contract for construction” of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.
2. The date of “contract for construction” of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder.  
For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a “series of vessels” if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:
  - (1) such alterations do not affect matters related to classification, or
  - (2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.
3. If a contract for construction is later amended to include additional vessels or additional options, the date of “contract for construction” for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a “new contract” to which **1.** and **2.** above apply.
4. If a contract for construction is amended to change the ship type, the date of “contract for construction” of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:

This Procedural Requirement applies from 1 July 2009.

## R4 PROBABILITY OF IGNITION

### R4.5 Cargo Areas of Tankers

#### R4.5.5 Inert Gas Systems

Sub-paragraph -5 has been added as follows.

**5** The wording “double hull spaces” specified in **4.5.5-3(1), Part R of the Rules** means all ballast tanks and void spaces of double hull and double bottom spaces adjacent to the cargo tanks, including the forepeak tank and any other tanks and spaces under the bulkhead deck adjacent to cargo tanks, except cargo pump-rooms. The expressions “tanks” and “spaces” are in accordance with **R4.5.7-3 through -5**.

### EFFECTIVE DATE AND APPLICATION (Amendment 1-4)

1. The effective date of the amendments is 1 January 2017.
2. Notwithstanding the amendments to the Guidance, the current requirements may apply to cargo ships for which the date of contract for construction\* is before the effective date.  
\* “contract for construction” is defined in the latest version of IACS Procedural Requirement (PR) No.29.

#### IACS PR No.29 (Rev.0, July 2009)

1. The date of “contract for construction” of a vessel is the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. This date and the construction numbers (i.e. hull numbers) of all the vessels included in the contract are to be declared to the classification society by the party applying for the assignment of class to a newbuilding.
2. The date of “contract for construction” of a series of vessels, including specified optional vessels for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective owner and the shipbuilder. For the purpose of this Procedural Requirement, vessels built under a single contract for construction are considered a “series of vessels” if they are built to the same approved plans for classification purposes. However, vessels within a series may have design alterations from the original design provided:
  - (1) such alterations do not affect matters related to classification, or
  - (2) If the alterations are subject to classification requirements, these alterations are to comply with the classification requirements in effect on the date on which the alterations are contracted between the prospective owner and the shipbuilder or, in the absence of the alteration contract, comply with the classification requirements in effect on the date on which the alterations are submitted to the Society for approval.The optional vessels will be considered part of the same series of vessels if the option is exercised not later than 1 year after the contract to build the series was signed.
3. If a contract for construction is later amended to include additional vessels or additional options, the date of “contract for construction” for such vessels is the date on which the amendment to the contract, is signed between the prospective owner and the shipbuilder. The amendment to the contract is to be considered as a “new contract” to which **1.** and **2.** above apply.
4. If a contract for construction is amended to change the ship type, the date of “contract for construction” of this modified vessel, or vessels, is the date on which revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder.

Note:

This Procedural Requirement applies from 1 July 2009.