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

## **Part P Mobile Offshore Drilling Units and Special Purpose Barges**

**RULES**

**2018 AMENDMENT NO.2**

Rule No.117      25 October 2018

Resolved by Technical Committee on 31 January 2018

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

Rule No.117 25 October 2018

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 P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES**

**Chapter 11 MACHINERY INSTALLATIONS**

**11.1 General**

**11.1.4 General Requirements for Machinery Installations\***

Sub-paragraph -5 has been amended as follows.

**5** Means are to be provided to ensure that machinery installations can be brought into operation from the dead unit condition without external aids. However, machinery installations of the unit for restricted areas (~~except for a unit which has a large embarking capacity~~), this requirement may be dispensed with, but special consideration is to be paid if the unit has a large embarking capacity.

## Chapter 12 ELECTRICAL INSTALLATIONS

### 12.1 General

Paragraph 12.1.2 has been amended as follows.

#### 12.1.2 General

1 For electrical installations other than those used solely for the operation which is the purpose of the unit, relevant requirements in **Part H** listed in the following (1) to (~~82~~) as well as the requirements in this Chapter are to be applied.

- (1) **1.1.2, Part H** General - General - Equivalency
- (2) **1.1.3, Part H** General - General - Electrical Installations with Novel Design Features
- (3) **1.1.5, Part H** General - General – Definitions
- (4) **1.1.6, Part H** General - General - Drawings and Data
- (~~54~~) **Chapter 2, Part H** Electrical Equipment and System Design
- (~~65~~) **3.4, Part H** Design of Installations - Starting Arrangement for Emergency Generating Sets
- (~~76~~) **3.7, Part H** Design of Installations - Lightning Conductors
- (~~87~~) **3.8, Part H** Design of Installations - Spare Parts, tools and Instruments
- (~~98~~) **Chapter 6, Part H** Special Requirements for Ships with Restricted Service and Small Ships

2 For electrical installations used solely for the operation which is the purpose of the unit, as a rule, the relevant requirements in **Part H** listed in the following (1) to (~~56~~) as well as the requirements in **12.1.4-1** are to be applied. However, electrical installations which do not comply with the requirements in **Part H** may be in accordance with the standards deemed appropriate by the Society.

- (1) **1.1.2, Part H** General - General - Equivalency
- (2) **1.1.3, Part H** General - General - Electrical Installations with Novel Design Features
- (3) **1.1.5, Part H** General - General - Definitions
- (4) **1.1.6, Part H** General - General - Drawings and Data
- (~~54~~) **Chapter 2, Part H** Electrical Equipment and System Design
- (~~65~~) **Chapter 6, Part H** Special Requirements for Ships with Restricted Service and Small Ships

#### 12.1.3 Tests\*

Sub-paragraph -1 has been amended as follows.

1 Electrical installations used for the systems or the equipment essential for the safety of the unit or for the propulsion of the unit (only applicable to the unit which has the main propulsion machinery) and listed in the following (1) to (~~56~~) are to be tested in accordance with the respective requirements in **Part H** at the manufacturer's works or at other works which provide with the adequate apparatus for testings and inspections. However, tests for any equipment with small capacities as specified in (2) and (3) are to be conducted as deemed appropriate by the Society.

- (1) Generators
- (~~21~~) ~~Generators and~~ motors
- (~~32~~) Control gears for motors
- (~~43~~) Main and emergency switchboards
- (~~54~~) Transformers for power and lighting of single phase  $1kVA$  or more and three phase  $5kVA$  or more

- (65) Power semiconductor converters not less than 5kW and their accessories used for supplying power to electrical equipment

Paragraph 12.1.5 has been amended as follows.

### **12.1.5 Main Source of Electrical Power and Lighting Systems\***

(-1 to -3 are omitted.)

4 For the unit for restricted areas (~~except for a unit which has a large embarking capacity~~), one set of main source of electrical power may be acceptable, but special consideration is to be paid if the unit has a large embarking capacity. Where, however, the navigation lights, signaling devices, etc. specified in -2(1)(a) are solely operated by electrical power, the unit is to be provided with an independent source of electrical power capable of operating these lights and devices in the event of failure of the main source of electrical power. Further, generators and prime movers as sources of electrical power provided from the necessity of the operation which is the purpose of the unit in addition to the main source of electrical power are regarded as equipment used solely for the operation, even when they are arranged to be used as a main source of electrical power.

(-5 to -8 are omitted.)

9 The emergency lighting system required by 12.1.8-3(3) and 12.2.3-3, 12.3.3, 12.4.2, ~~or 12.5.2 or 12.6.2~~ and the navigation lights, signaling devices, etc. required by 12.2.4(2) and (3), 12.3.4(2), 12.4.3(2) and (3), ~~or 12.5.3(2) and (3) or 12.6.3(2) and (3)~~ are to be so arranged as not to be impaired in the event of a fire or other casualty in spaces containing the main source of electrical power, associated transforming equipment, the main switchboard and the main lighting switchboard.

Paragraph 12.1.6 has been amended as follows.

### **12.1.6 Emergency Source of Electrical Power\***

(-1 to -3 are omitted.)

4 For the unit where the main source of electrical power is located in two or more spaces which have their own systems, including power distribution and control systems, completely independent of the systems in the other spaces and such that a fire or other casualty in any one of the spaces will not affect the power distribution from the others, or to the emergency services required by 12.1.8-4, and 12.2.4, 12.3.4, 12.4.3, ~~or 12.5.3 or 12.6.3~~, the requirements of -1 to -3 may be considered satisfied without an additional emergency source of electrical power, provided that the Society is satisfied with the following (1) to (3).

- (1) At least two generating sets meeting the requirements in 11.1.4-3 and each of sufficient capacity to meet the requirements in 12.1.8-4, and 12.2.4, 12.3.4, 12.4.3, ~~or 12.5.3 or 12.6.3~~, in each of at least two spaces are provided.
- (2) The arrangements required by (1) in each such space are equivalent to those required by -7(1), -8 to -12 and 3.4, Part H so that a source of electrical power is available at all times to the services required by 12.1.8-4, and 12.2.4, 12.3.4, 12.4.3, ~~or 12.5.3 or 12.6.3~~.
- (3) The location of each of the spaces referred to in (1) is in compliance with -2 and the boundaries meet the requirements of -3 except that contiguous boundaries are to consist of a steel bulkhead insulated to class "A-60" on both sides.

(-5 is omitted.)

6 The emergency electrical power available is to be sufficient to supply all those services that are essential for safety in an emergency, due regard being paid to such services as may have to be operated simultaneously. The emergency source of electrical power is to be capable, having regard to starting currents and the transitory nature of certain loads, of supplying simultaneously at least the services required by 12.1.8-4, and 12.2.4, 12.3.4, 12.4.3, ~~or 12.5.3 or 12.6.3~~ for the periods

specified hereinafter, if they depend upon an electrical source for their operation.

(-7 is omitted.)

**8** The transitional source of emergency electrical power where required by ~~-7(1)(c)~~ is to consist of an accumulator battery suitably located for use in an emergency which is to:

- (1) operate without recharging while maintaining the voltage of the battery throughout the discharge period within 12% above or below its nominal voltage; and
- (2) be of sufficient capacity and be so arranged as to supply automatically in the event of failure of either the main or the emergency source of electrical power for 30 *minutes* at least the following services if they depend upon an electrical source for their operation.
  - (a) The emergency lighting required by **12.1.8-4(1)**, and **12.2.4(1)**, **12.3.4(1)**, **12.4.3(1)** ~~or 12.5.3(1) or 12.6.3(1)~~. For this transitional phase, the required emergency electrical lighting, in respect of the machinery space, accommodation and service spaces may be provided by permanently fixed, individual, automatically charged, relay operated accumulator lamps.
  - (b) The navigation lights and signaling devices required by **12.2.4(2)**, **12.3.4(2)**, **12.4.3(2)** ~~or 12.5.3(2) or 12.6.3(2)~~.
  - (c) All services required by **12.1.8-4(2)(b)**, and **12.2.4(4)(a)**, (c) to (e) and **12.2.4(5)**, **12.3.4(3)**, (6) and (7), **12.4.3(4)(a)**, (c) and (d) ~~or 12.5.3(4)(a)~~, (c) and (d) ~~or 12.6.3(4)(a)~~, (c) and (d) unless such services have an independent supply for the period specified from an accumulator battery suitably located for use in an emergency.

(-9 to -13 are omitted.)

**14** For the unit for restricted areas (~~except for a unit which has a large embarking capacity~~), the Society may modify the application of the requirements in this **12.1.6**.

**15** With respect to the provisions of -14 above, special consideration is to be paid to unit which has a large embarking capacity.

### **12.1.8 Additional Requirements for the Unit which has the Main Propulsion Machinery\***

Sub-paragraph -3 has been amended as follows.

#### **3 Main source of electrical power and lighting systems**

- (1) The arrangements of the unit's main source of electrical power are to be such that the services referred to in **12.1.5-2** can be maintained regardless of the speed and direction of the propulsion machinery or shafting.
- (2) The generating sets are to be such as to ensure that with any one generator or its primary source of power out of operation, the remaining generating sets are to be capable of providing the electrical services necessary to start the main propulsion plant from a dead ship condition. The emergency source of electrical power may be used for the purpose of starting from a dead ship condition if its capability either alone or combined with that of any other source of electrical power is sufficient to provide at the same time those services required to be supplied by the requirements in **12.2.4**, **12.3.4**, **12.4.3** ~~or 12.5.3 or 12.6.3~~.
- (3) At the steering gear, emergency lighting providing sufficient illumination necessary for the safety is to be provided.

## Chapter 14 FIRE PROTECTION AND MEANS OF ESCAPE

### 14.1 General

#### 14.1.1 Application

Sub-paragraph -2 has been amended as follows.

**2** The structural fire protection and means of escape provided for ship-type or barge-type units, except for units fixed on the seabed or positioned for long periods of time, are to be according to ~~14.7, in addition to~~ the requirements given in **Part R**.

#### EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 25 April 2019.
2. Notwithstanding the amendments to the Rules, the current requirements apply to ships for which the date of contract for construction is before the effective date.
3. Notwithstanding the provision of preceding **2.**, the amendments to the Rules may apply to ships for which the date of contract for construction is before the effective date upon request.

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

## **Part P Mobile Offshore Drilling Units and Special Purpose Barges**

**GUIDANCE**

**2018 AMENDMENT NO.1**

Notice No.79      25 October 2018

Resolved by Technical Committee on 31 January 2018

Notice No.79 25 October 2018

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

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

**Part P MOBILE OFFSHORE DRILLING UNITS AND SPECIAL PURPOSE BARGES**

**P11 MACHINERY INSTALLATIONS**

**P11.1 General**

**P11.1.4 General Requirements for Machinery Installations**

Sub-paragraph -4 has been added as follows.

4 “Special consideration” specified in 11.1.4-5, Part P of the Rules means that measures deemed appropriately by the Administration (for example, risk assessments and treatments for the ship which has a large embarking capacity) are to be taken.

## P12 ELECTRICAL INSTALLATIONS

### P12.1 General

Paragraph P12.1.3 has been amended as follows.

#### P12.1.3 Tests

1 The wording “tests for any equipment with small capacities as specified in (2) and (3) are to be conducted as deemed appropriate by the Society” specified in **12.1.3-1, Part P of the Rules** means those shop tests for electrical motors whose capacities at continuous ratings are less than 100 kW and controlgears of those motors may be substituted for by manufacturer tests. In such cases, submission or presentation of test records may be required by the Society.

~~2~~ (Omitted)

~~3~~ (Omitted)

~~4~~ (Omitted)

~~5~~ (Omitted)

~~6~~ (Omitted)

#### P12.1.5 Main Source of Electrical Power and Lighting Systems

Sub-paragraph -6 has been added as follows.

6 “Special consideration” specified in **12.1.5-4, Part P of the Rules** means that measures deemed appropriate by the Administration (for example, risk assessments and treatments for the ship which has a large embarking capacity) are to be taken.

Paragraph P12.1.6 has been amended as follows.

#### P12.1.6 Emergency Source of Electrical Power

1 The automatic starting system specified in **12.1.6-7(1)(c), Part P of the Rules** is to comply with the requirements listed in the following (1) to (3).

- (1) The source of stored energy is to have such a capacity which is capable of starting the prime mover at least 6 *times*.
- (2) In case where the automatic starting system is of the consecutive starts, the number of starts is to be 3 or less.
- (3) For automatic starting system, a means is to be provided to hold such an allowance of source of energy capable of starting the prime mover 3 *times* further after making the initial consecutive starts.

2 “Special consideration” specified in **12.1.6-15, Part P of the Rules** means that measures deemed appropriate by the Administration (for example, risk assessments and treatments for the ship which has a large embarking capacity) are to be taken.

## EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 25 April 2019.
2. Notwithstanding the amendments to the Guidance, the current requirements apply to ships for which the date of contract for construction is before the effective date.
3. Notwithstanding the provision of preceding **2.**, the amendments to the Guidance may apply to ships for which the date of contract for construction is before the effective date upon request.