RULES FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

RULES

Part P Mobile Offshore Drilling Units and Special Purpose Barges

2011 AMENDMENT NO.2

Rule No.82 1st November 2011
Resolved by Technical Committee on 7th July 2011
Approved by Board of Directors on 27th September 2011

Rule No.82 1st November 2011
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 3 DESIGN LOADS

3.2 Design Loads

3.2.2 Wind Load

Sub-paragraph -3 has been amended as follows.

(Omitted)
3 The wind load F is not to be less than obtained from the following formula with regard to each structural member of the unit. In addition, the resultant force and its acting point are to be determined for each wind direction.

$F = PA\ (N)$

P: Wind pressure specified in **-2**. (N/m^2)

A: Projected area of all exposed structural members on a plane perpendicular to each wind direction in the upright condition or, if necessary, in the heeling condition (m^2). In determining the projected area, the requirements in the following **(1)** to **(5)** are to be applied:

(Omitted)

(5) The projected areas in case where <u>drilling</u> derrick towers, booms, masts, etc. are of open truss work may be taken as 60% of the projected block areas perpendicular to each wind direction assuming that they are not of open truss work.

(Omitted)

Table P3.2 has been amended as follows.

Table P3.2 Shape Coefficient C_s

Structural members	C_s
Spherical structures	0.40
Cylindrical structures	0.50
Main Hulls	1.00
Deckhouses	1.00
Independent structural members (cranes, shapes, beams, etc.)	1.50
Under-deck parts (smooth surface)	1.00
Under-deck parts (exposed beams, girders, etc.)	1.30
~~Working towers~~ <u>Drilling derricks</u> (each surface)	1.25

Chapter 13 MACHINERY INSTALLATIONS, ELECTRICAL INSTALLATIONS, AND SO ON IN HAZARDOUS AREAS

13.1 General

13.1.3 Hazardous Areas

Sub-paragraph -1 has been amended as follows.

1 Mobile offshore drilling units

Hazardous areas for the mobile offshore drilling unit are, at least, to be as listed in the following **(1)** to **(3)**. In addition, hazardous areas not covered in following **(1)** to **(3)**(such as, but not limited to, well test equipment areas, helicopter fuel storage areas, acetylene cylinder storage areas, battery rooms, paint lockers, flammable gas or vapour vents and diverter line outlets) are to be classified in accordance with **1.2.16**.

(Omitted)

(3) Hazardous areas zone 2

(a) Enclosed spaces which contain open sections of the mud circulating system from the final degassing discharge to the mud pump suction connection at the mud pit.

(b) Outdoor locations within the boundaries of the drilling ~~tower~~ derrick up to a height of 3*m* above the drill floor.

(c) Semi-enclosed towers to the extent of their enclosures above the drill floor or to a height of 3*m* above the drill floor, whichever is greater.

(Omitted)

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 May 2012.

2. Notwithstanding the amendments to the Rules, the current requirements may apply to units 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 units for which the application is submitted to the Society before the effective date upon request by the owner.

GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF STEEL SHIPS

GUIDANCE

Part P Mobile Offshore Drilling Units and Special Purpose Barges

2011 AMENDMENT NO.2

Notice No.90 1st November 2011
Resolved by Technical Committee on 7th July 2011

Notice No.90 1st November 2011
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

Chapter P9 has been added as follows.

P9 HULL EQUIPMENTS

P9.4.2 Mobile Offshore Drilling Units

1 The design and supporting structures of drilling derricks referred to in **9.4.2-2, Part P of the Rules** are, in general, to be in accordance with the following **(1)** to **(6)** in addition to *API Spec 4F* (*Specification for Drilling and Well Serving Structures*):

(1) The following **(a)** to **(c)** are to be considered with respect to design loads in addition to that specified in *API Spec 4F*:
   (a) The wind velocities and wind loads specified in **3.2.2, Part P of the Rules**
   (b) Loads caused by snow and icing
   (c) The deck loads specified in **3.2.6, Part P of the Rules**

(2) Consideration is to be given to the local strength and fatigue strength of drilling derricks and special attention is to be paid to vortex-induced vibrations.

(3) Materials used in drilling derricks are to be in accordance with **6.2, Part P of the Rules** in addition to **Chapter 2, Part P of the Rules**. In addition, with respect to the requirements of **6.2, Part P of the Rules**, the structural members of drilling derricks are to be considered as either primary structural members or secondary structural members.

(4) Welding used for drilling derricks is to be in accordance with **Chapter 2, Part P of the Rules**. In addition, butt welded parts are, as a rule, to be of the full-penetration type.

(5) At least one escape route from the drilling derrick is to be provided. However, in cases where workers regularly man the upper parts of a drilling derrick, the escape route from the drilling derrick is not to lead to the drilling floor.

(6) In cases where bolted connections are to be used for drilling derricks, the following **(a)** and **(b)** are to be complied with in addition to **(1)**:
   (a) Bolts based on standards deemed appropriate by the Society are to be used. In addition, when bolts are selected, consideration is to be given to stress corrosion cracking and fatigue strength.
   (b) Appropriate measures are to be provided to bolted connections in the main load carrying members such as the upper parts and foundations of drilling derricks.

2 Supporting structures of drilling derricks

(1) A structural analysis is to be performed for drilling derricks, drilling floors and substructures (including the supporting structures of the drilling derricks and drilling floors) in accordance with the requirements in **7.2.1, Part P of the Rules**. Allowable stresses are not to exceed the values in **Table P7.1** according to the kind of stress.

(2) The loads used for structural analysis in **(1)** above are to be in accordance with the following **(a)** and **(b)**. In addition, when deemed necessary by the Society, additional requirements may be requested.

(a) Loads taken in operating condition, the dead load of the ship, loads caused by snow and icing, as well as the loads transmitted from hooks, fastlines, deadlines, setbacks, rotary tables and riser tensioners are to be considered in the static loading condition.

(b) The static loads specified in **(a)** as well as dynamic loads such as wind loads and loads due to ship acceleration and inclination are to be considered in combined loads.

(3) For self-elevating ships having movable cantilever constructions and skid beams which support substructures, a structural analysis is to be performed for such cantilever constructions and skid beams according to **7.2.1, Part P of the Rules**. Allowable stresses are not to exceed the values in **Table P7.1** according to the kind of stress. Reaction forces transmitted from movable cantilever constructions and skid beams are to be considered in the loads acting on hull constructions.

EFFECTIVE DATE AND APPLICATION

1. The effective date of the amendments is 1 May 2012.

2. Notwithstanding the amendments to the Guidance, the current requirements may apply to units 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 units for which the application is submitted to the Society before the effective date upon request by the owner.