

# **RULES**

## **FOR THE CLASSIFICATION AND CONSTRUCTION OF FIXED OFFSHORE PLATFORMS**

### **PART XII MATERIALS**

ND No. 2-020201-027-E



**St. Petersburg  
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# **RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF FIXED OFFSHORE PLATFORMS**

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Rules for the Classification and Construction of Fixed Offshore Platforms (the FOP Rules) of Russian Maritime Register of Shipping (RS, the Register) have been approved in accordance with the established approval procedure and come into force on 1 September 2023.

The present Rules are based on the latest version of the Rules for the Classification, Construction and Equipment of Mobile Offshore Drilling Units and Fixed Offshore Platforms, 2022, taking into account the amendments and additions developed immediately before publication.

The Rules set down specific requirements for FOP and supplement the Rules for the Classification and Construction of Sea-Going Ships and the Rules for the Equipment of Sea-Going Ships.

The Rules are published in the following parts:

Part I "Classification";

Part II "Hull";

Part III "Equipment, Arrangements and Outfit";

Part IV "Stability";

Part V "Subdivision";

Part VI "Fire Protection";

Part VII "Machinery Installations and Machinery";

Part VIII "Systems and Piping";

Part IX "Boilers, Heat Exchangers and Pressure Vessels";

Part X "Electrical Equipment";

Part XI "Refrigerating Plants";

Part XII "Materials";

Part XIII "Welding";

Part XIV "Automation";

Part XV "Safety Assessment";

Part XVI "Signal Means";

Part XVII "Life-Saving Appliances";

Part XVIII "Radio Equipment";

Part XIX "Navigational Equipment";

Part XX "Equipment for Prevention of Pollution".

**REVISION HISTORY**

(purely editorial amendments are not included in the Revision History)

For this version, there are no amendments to be included in the Revision History.

## **1 GENERAL**

**1.1** The requirements of this Part of the Rules for the Classification and Construction of Fixed Offshore Platforms<sup>1</sup> apply to materials intended for welded structures, components of machinery and equipment of FOP, subject to the Register technical supervision. In addition to the requirements of this Part, the relevant requirements of Part XIII "Materials" of the Rules for the Classification and Construction of Sea-Going Ships<sup>2</sup> shall be met.

**1.2** Testing of materials subject to technical supervision shall be carried out in accordance with the requirements of Section 2, Part XIII "Materials" of the RS Rules/C and procedures recognized by the Register, as well as national and international standards.

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<sup>1</sup> Throughout the text of the Parts of the Rules referred to as "the FOP Rules".

<sup>2</sup> Hereinafter referred to as "the RS Rules/C".

## 2 METALS

### 2.1 Rolled stock for steel structures.

Rolled stock intended for manufacture of structural members of FOP depending on the choice shall comply with the requirements of the relevant chapters of Section 3, Part XIII "Materials" of the RS Rules/C for indexed steels.

### 2.2 Steel for boilers, heat exchangers and pressure vessels.

**2.2.1** The steel intended for manufacture of pressure vessels and exposed to negative design temperatures shall be subjected to impact tests on specimens with sharp V-notch ( $KV_T$ ) and longitudinal axis perpendicular to the direction of final rolling. For impact tests of profiles and strip steel longitudinal specimens ( $KV_L$ ) may be selected. Impact tests of carbon and carbon-manganese steels shall be carried out at a temperature of at least 5 °C lower than the design temperature. In any case the mean value of impact  $KV_T$  for test pieces with section of 10 x 10 mm shall be not lower than 27 J and the mean value of impact  $KV_L$  not lower than 41 J.

**2.2.2** Steels with thickness above 15 mm intended for service at negative temperatures shall be subjected additionally to drop weight testing. The tests shall be performed on minimum two specimens selected from semi-finished products of the largest thickness in each cast in accordance with the requirements of 2.2.6, Part XIII "Materials" of the RS Rules/C. Absence of steel susceptibility to brittle fracture shall be confirmed at the temperature 5 °C lower than the design temperature.

**2.2.3** Steel intended for manufacture of process tanks for storage and transportation of liquefied gases shall comply with the requirements of Part IX "Materials and Welding" of the Rules for the Classification and Construction of Ships Carrying Liquefied Gases in Bulk.

Russian Maritime Register of Shipping

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