RULES

FOR THE CLASSIFICATION AND CONSTRUCTION OF SUBSEA PRODUCTION SYSTEMS

ND No. 2-090601-003-E

RULE CHANGE NOTICE

ENTERS INTO FORCE:

01.01.2025

St. Petersburg
2024

RULES FOR THE CLASSIFICATION AND CONSTRUCTION OF SUBSEA PRODUCTION SYSTEMS

The present Rule Change Notice to the Rules for the Classification and Construction of Subsea Production Systems (hereinafter — RCN) has been approved in accordance with the established approval procedure and contains information on amendments and additions, except for editorial amendments. RCN amendments come into force on 1 January 2025.

REVISION HISTORY

Item	Applicability	Description	Remarks
Part I, Chapter 1.2	In-line tee	The list of abbreviations for the subsea pipeline components has been amended	
Part I, Table 6.1	Nomenclature of items of the RS technical supervision	The group of codes of the items of the RS technical supervision has been amended	
Part VIII, Section 4 (new)	In-line tee Pipeline end termination	Description of the subsea pipeline components has been introduced with the requirements thereto	

PART I. GENERAL REGULATIONS FOR TECHNICAL SUPERVISION

1 DEFINITIONS AND ABBREVIATIONS

1.2 ABBREVIATIONS

After the abbreviation "**ICB**", the new abbreviation "**ILT**" is introduced reading as follows:

"ILT — In-line tee;".

6 NOMENCLATURE OF ITEMS OF THE TECHNICAL SUPERVISION OF THE SUBSEA PRODUCTION SYSTEMS

Table 6.1. The group of **Codes 26020700** is amended as follows:

"Table 6.1

Nomenclature of Items of the Register Technical Supervision of the Subsea Production Systems

Code of the item of technical supervision	Item of technical supervision	Technical supervision of the Register			
		during manufacture of materials and products	during construction		
		Group of items of technical supervision (1 — 5)	Installation	Factory testing	Operational testing
26020700	~~**Flowlines**~~ **Components of pipelines and flowlines:**				
26020701	flowline connector units	3	P	P	P
26020702	~~pipelines~~pipeline(-s) end manifold	~~3~~ 5	P	P	P
26020703	pipeline end termination	3	P	P	P
26020704	in-line tee	3	P	P	P

".

PART VIII. FIELD SUBSEA PIPELINES AND RISERS

The new **Section 4** is introduced reading as follows:

"4 PIPELINE END TERMINATIONS (PLET) AND IN-LINE TEES (ILT)

4.1 Pipeline end termination (PLET) is a termination component of a subsea pipeline, which typically comprises the following:

seabed base;

protective structure;

main line with shutoff valves and the pipeline connector;

branch line with shutoff valves and the pipeline connector;

controls for ROV;

set of pressure caps.

4.2 In-line tee (ILT) is a component of a subsea pipeline with shutoff valves on the branch line providing connection between the main line and other pipeline. Typically, ILT comprises the following:

seabed base;

protective structure;

branch line with shutoff valves and the pipeline connector;

controls for ROV;

set of pressure caps.

4.3 PLET and ILT shall both comply with the requirements of 3.2 — 3.16, Section 3 of this Part of the Rules.

4.4 The set of pressure caps is used to protect interior of the pipeline and connectors against damage and contamination.

4.4.1 Low-pressure cap (LP cap) for PLET and ILT shall protect the inside of the pipe at ambient pressure, including at water pressure at the installation depth, until the planned commissioning of the equipment.

4.4.2 High-pressure cap (HP cap) for PLET and ILT shall protect and seal the inside of the pipe of an SPS component filled with well fluid or process fluid, when operating at a working pressure at the operating depth.

4.4.3 The debris cap (cap against mud) for PLET and ILT shall protect a sealing profile of the pipeline connector and prevent the ingress of contamination into the pipeline interior and the connector sealing area during underwater installation and maintenance after removal of a HP/LP cap .

4.4.4 The test caps for PLET and ILT shall withstand pressure during testing.

4.4.5 Both the HP and LP caps for PLET and ILT shall be fitted with a sealing as well as the handling and mounting rails for ROV.

4.4.6 Clamping mechanisms of caps for PLET and ILT shall be fitted with locking devices or lock screws against inadvertent disengagement.

4.5 Installation operations of PLET and ILT shall be designed based on the requirements and recommendations for lifting devices and non-pressurized structural elements specified in GOST R 59305 (ISO 13628-1:2005) (Appendix K).

4.5.1 The design shall contain the list of input data, the list of reference criteria, description of the design scenarios, description of calculation procedure and software application, the calculation results and conclusions therefrom. The input data shall include weight and size characteristics of PLET and ILT, parameters of a pipeline to be connected, hydro-meteorological conditions at the area of the equipment installation, seaworthiness

properties of the vessels involved, features of a typical crane equipment as well as the installation procedures.

4.5.2 The list of reference criteria shall contain information on the monitored parameters of equipment and pipeline condition according to the normative and/or design documentation allowing unambiguously assess the possibility to carry out planned operations as per the design results.

4.5.3 The description of the design scenarios shall contain information on the combination of various input data and reference criteria, which are estimated for the planned offshore operations. These scenarios shall consider deviation in seaworthiness properties of the vessel involved depending on the direction of loads due to environmental impact.

4.5.4 The calculation procedure shall contain information on mathematical dependencies, coefficients and normative documentation as well as the description of software and mathematical model applied.

4.5.5 The calculation results shall contain the condition parameters of equipment and a pipeline to be connected for each design scenario, and a reference criterion with a relevant result.

4.5.6 Conclusions from the calculation results shall contain a statement whether it is possible to carry out the planned installation operations and a description of limitations for the work.

4.6 The main line for PLET and ILT designed for a pig transfer shall meet the following requirements:

the inner diameter shall be of the full-passage type and not prevent pig from passing in both directions;

the pipeline bend radius shall not be less that the minimum allowed;

suspended solids formed when cleaning the deposits shall not accumulate inside the pipeline outlets being cleaned (outlets of the branch line shall be located above the main line axis);

protective grills are not allowed to protrude inside;

branch lines installed in series, shutoff valves and outlets should be separated from each other by straight pipe sections having a length of not less than three inner diameters of the pipeline;

in sections where a pig is used, components of PLET and ILT should have the same inner diameter with a pipeline to be connected.

4.7 Edges of the outlets for PLET and ILT to be welded to a pipeline shall be prepared for welding in accordance with the requirements of Section 5, Part I of the SP Rules.

4.8 Shutoff valves for PLET and ILT shall be secured to a pipeline by welding joint.

4.9 Connectors of the main and branch lines for PLET and ILT shall have guiding elements to ensure precise positioning of the mating equipment during connection.

4.10 When connecting to a pipeline, the connection system for PLET and ILT shall compensate both axial and angular deviation by means of a complete alignment or, in the case of an axial and/or angular deviation, by ensuring a leakproof connection.

4.11 PLET and ILT shall be both designed so to allow for inspection, maintenance and repair by means of ROV all throughout the service life.

4.12 The coupling sleeves for PLET and ILT shall be designed so that the metal seal can be replaced.

4.13 The design of PLET shall allow for installation and retrieval of pig launcher/receiver, where necessary.".

Russian Maritime Register of Shipping

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