

Remotely Operated Tools and Interfaces on Subsea Production Systems

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Introduction

This recommended practice has been prepared to provide general recommendations and overall guidance for the design and operation of remotely operated tools comprising ROT and ROV tooling used on subsea production systems for the petroleum and natural gas industries worldwide.

Specific recommendations are used where a standard design or operating principle has been adopted in the industry for a period of time. Requirements valid for certain geographic areas or environmental conditions are included where applicable.

The functional recommendations for the tooling systems and interfaces on the subsea production system allow alternative solutions to suit the field specific requirements. The intention is to facilitate and complement the decision process rather than replace individual engineering judgment and to provide positive guidance for the selection of an optimum solution.

Remotely Operated Tools and Interfaces on Subsea Production Systems

1 Scope

This document provides recommendations for development and design of remotely operated subsea tools and interfaces on subsea production systems in order to maximize the potential of standardizing equipment and design principles.

This document does not cover manned intervention, internal wellbore intervention, internal flowline inspection, tree running, and tree running equipment. However, all the related subsea remotely operated vehicle/remotely operated tool (ROV/ROT) interfaces are covered by this standard. It is applicable to the selection, design, and operation of ROTs and ROVs including ROV tooling, hereafter defined in a common term as subsea intervention systems.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

API Recommended Practice 17A/ISO 13628-1, *Design and operation of subsea production systems—General requirements and recommendations*, including Addendum 1 (2006)

API Specification 17D, *Specification for Subsea Wellhead and Tree Equipment*

API Specification Q1/ISO 29001, *Specification for Quality Programs for the Petroleum, Petrochemical and Natural Gas Industry*

ISO 9001:2008¹, *Quality Management Systems—Requirements*

ASNT SNT-TC-1A², *Recommended Practice and ASNT Standard Topical Outlines for Qualification of Nondestructive Testing Personnel*

BS 7172-2³, *Code of practice for safe use of cranes—Part 2: Inspection, testing and examination*

DNV 2.7⁴, *Series*

3 Terms, Definitions, and Abbreviations

3.1 Terms and Definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1 deployment system

All equipment involved in the launch and recovery of the ROV and ROT system.

¹ International Organization for Standardization, 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, www.iso.org.

² American Society for Nondestructive Testing, 1711 Arlingate Lane, P.O. Box 28518, Columbus, Ohio 43228, www.asnt.org.

³ British Standards Institution, Chiswick High Road, London W4 4AL, United Kingdom, www.bsi-global.com.

⁴ Det Norske Veritas, Veritasveien 1, 1322, Hovik, Oslo, Norway, www.dnv.com.