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Oil and gas industries including low carbon energy — Design and operation of subsea production systems —

Part 1: General requirements and recommendations

Industries du pétrole et du gaz, y compris les énergies à faible teneur en carbone — Conception et exploitation des systèmes de production immergés —

Partie 1: Exigences générales et recommandations

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 67, *Oil and gas industries including lower carbon energy*, Subcommittee SC 4, *Drilling, production and injection equipment*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 12, *Oil and gas industries including lower carbon energy,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 13628-1:2005), which has been technically revised. It also incorporates the Amendment ISO 13628-1:2005/Amd 1:2010.

The main changes are as follows:

— ISO 13628-1 has been fully re-written compared to the 2005 edition of the document;

— ISO 13628-1 has been aligned with API RP 17A and is now a technically equivalent document.

A list of all parts in the ISO 13628 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document has been prepared to provide general requirements and recommendations for the user to the various areas requiring consideration during development of a subsea production system for the petroleum and natural gas industries. The requirements and guidance in this document are intended to complement engineering judgement and facilitate the decision process.

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Oil and gas industries including low carbon energy — Design and operation of subsea production systems —

Part 1: General requirements and recommendations

1 Scope

This document provides general requirements and recommendations for the development and operation of subsea production/injection systems, from the concept development phase to decommissioning and abandonment.

Flexible pipe standards form part of the API 17-series of documents (see 4.3.3); however, this document (technically equivalent to API RP 17A 6th edition) does not generally cover flowlines/pipelines or production/injection risers (associated with flowlines/pipelines). These components form part of a complete subsea production system (SPS), as shown in Figure 1.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1.1
barrier
element forming part of a pressure-containing envelope that is designed to prevent unintentional flow of production/injected fluids, particularly to the external environment

3.1.2
factory acceptance test
FAT
test conducted to verify that the specified requirements for a product have been fulfilled

3.1.3
first article
first of a product produced using the “normal processes” as will be used to make multiple numbers of the same product

EXAMPLE The first of a new design of SCM manufactured on a production line and intended for use in the field.

Note 1 to entry: As distinct from a prototype, a first article should accurately represent all aspects and functionality of the production-model product.

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