

SLOVENSKI STANDARD SIST EN ISO 19345-2:2019

01-september-2019

Industrija za predelavo nafte in zemeljskega plina - Transportni cevovodni sistemi - Specifikacija za upravljanje celovitosti cevovoda - 2. del: Upravljanje celovitosti podvodnega cevovoda v celotnem življenjskem ciklu (ISO 19345-2:2019)

Petroleum and natural gas industry - Pipeline transportation systems - Pipeline integrity management specification - Part 2: Full-life cycle integritymanagement for offshore pipeline (ISO 19345-2:2019)

Erdöl- und Erdgasindustrie - Leitfaden für das Integritätsmanagement von Fernleitungen - Teil 2: Integritätsmanagement des vollständigen Lebenszyklus von Offshore Fernleitungen (ISO 19345-2:2019)

SIST EN ISO 19345-2:2019

PNGI - Spécifications de gestion de l'intégrité des pipelines - Partie 2: Gestion de l'intégrité des pipelines marins durant leur cycle de vie complet (ISO 19345-2:2019)

Ta slovenski standard je istoveten z: EN ISO 19345-2:2019

ICS:

75.200 Oprema za skladiščenje

nafte, naftnih proizvodov in

zemeljskega plina

Petroleum products and natural gas handling

equipment

SIST EN ISO 19345-2:2019

en,fr,de

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SIST EN ISO 19345-2:2019

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM EN ISO 19345-2

June 2019

ICS 75.200

English Version

Petroleum and natural gas industry - Pipeline transportation systems -Pipeline integrity management specification - Part 2: Full-life cycle integrity management for offshore pipeline (ISO 19345-2:2019)

Industries du pétrole et du gaz naturel - Systèmes de transport par conduites - Spécification de gestion de l'intégrité des conduites - Partie 2: Gestion de l'intégrité des conduites en mer pendant leur cycle de vie complet (ISO 19345-2:2019)

Erdöl- und Erdgasindustrie -Fernleitungstransportsysteme - Leitfaden für das Integritätsmanagement von Fernleitungen - Teil 2: Integritätsmanagement des vollständigen Lebenszyklus von Offshore Fernleitungen (ISO 19345-2:2019)

This European Standard was approved by CEN on 9 February 2019. PREVIEW
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European foreword

This document (EN ISO 19345-2:2019) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" the secretariat of which is held by NEN.

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SIST EN ISO 19345-2:2019

INTERNATIONAL STANDARD

ISO 19345-2

First edition 2019-05

Petroleum and natural gas industry — Pipeline transportation systems — Pipeline integrity management specification —

Part 2:

iTeh ST Full-life cycle integrity management for offshore pipeline

(standards.iteh.ai)

Industries du pétrole et du gaz naturel — Systèmes de transport par conduites — Spécification de gestion de l'intégrité des conduites —

https://standards.iteh.apartile-2: Gestion de l'intégrité des conduites en mer pendant leur 66d60 cycle de vie complet 345-2-2019



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Published in Switzerland

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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.

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This document was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 2, *Pipeline transportation systems*://standards.iteh.ai/catalog/standards/sist/7e3/b89b-62b1-48db-a312-66d60ac63433/sist-en-iso-19345-2-2019

A list of all parts in the ISO 19345 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.

Introduction

This document addresses the integrity of petroleum and natural gas pipelines through their entire life-cycle, from design to eventual abandonment. For this reason, considerations relating to design, construction and abandonment have been included. This approach supports the development and implementation of a holistic and integrated pipeline integrity management program that bridges between life-cycle elements and thereby avoids compartmentalizing of the pipeline life-cycle into essentially independent data and functional silos, which has traditionally been the case. The integrated approach was developed on the basis of extensive research and examination of best practices and results from pipeline integrity audits world-wide.

This document is intended to be used by companies that have not yet developed an official program or are developing a program for new pipelines. This document can also be used to guide continual improvement of existing programs by both operating companies and regulators to evaluate integrity management program effectiveness.

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Petroleum and natural gas industry — Pipeline transportation systems — Pipeline integrity management specification —

Part 2:

Full-life cycle integrity management for offshore pipeline

1 Scope

This document specifies requirements and gives recommendations on the management of integrity of a pipeline system throughout its life cycle, which includes design, construction, commissioning, operation, maintenance and abandonment.

This document is applicable to offshore pipelines for transporting petroleum and natural gas. It is applicable to rigid steel pipelines. It is not applicable to flexible pipelines, dynamic risers or those constructed from other materials, such as glass-reinforced plastics.

NOTE 1 An offshore pipeline system extends to:

— the first valve, flange or connection above water on platform or subsea mechanical connector with subsea structure (i.e. manifold or dynamicriser); rds.iteh.ai)

— the connection point to the offshore installation (i.e. piping manifolds are not included);

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— the first valve, flange, connection or isolation/joint at a landfall bunless otherwise specified by the onshore legislation.

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NOTE 2 The components mentioned above (valve, flange, connection, isolation joint) include also any pup

pieces, i.e. the offshore pipeline system extends to the weld beyond the pup piece, see Figure 1.

This document is used for integrity management, which is initiated at the design and construction

This document is used for integrity management, which is initiated at the design and construction stage of the pipeline. Where requirements of a design and construction standard (e.g. ISO 13623) are different, the provisions of this document will enhance the design and construction from an integrity perspective.