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Petroleum, petrochemical and natural gas industries - Production assurance and reliability management

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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Standard on kinnitatud Eesti Standardikeskuse 21.07.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 21.07.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.06.2008.	Date of Availability of the European standard text 01.06.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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ICS 75.180.01, 75.200

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 20815

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ICS 75.180.01; 75.200

English Version

Petroleum, petrochemical and natural gas industries - Production assurance and reliability management (ISO 20815:2008)

Industries du pétrole, de la pétrochimie et du gaz naturel - Assurance de la production et management de la fiabilité (ISO 20815:2008)

Erdöl- und Erdgasindustrie - Betriebsoptimierung und Zuverlässigkeitsmanagement (ISO 20815:2008)

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Foreword

This document (EN ISO 20815:2008) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum 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 AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2008, and conflicting national standards shall be withdrawn at the latest by December 2008.

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The text of ISO 20815:2008 has been approved by CEN as a EN ISO 20815:2008 without any modification.

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Introduction

The petroleum and natural gas industries involve large capital investment costs as well as operational expenditures. The profitability of these industries is dependent upon the reliability, availability and maintainability of the systems and components that are used. Therefore, for optimal production availability in the oil and gas business, a standardized, integrated reliability approach is required.

The concept of production assurance, introduced in this International Standard, enables a common understanding with respect to use of reliability technology in the various life-cycle phases and covers the activities implemented to achieve and maintain a performance level that is at its optimum in terms of the overall economy and, at the same time, consistent with applicable regulatory and framework conditions.

Annexes A through I are for information only.

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Petroleum, petrochemical and natural gas industries — Production assurance and reliability management

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1 Scope

This International Standard introduces the concept of production assurance within the systems and operations associated with exploration drilling, exploitation, processing and transport of petroleum, petrochemical and natural gas resources. This International Standard covers upstream (including subsea), midstream and downstream facilities and activities. It focuses on production assurance of oil and gas production, processing and associated activities and covers the analysis of reliability and maintenance of the components.

It provides processes and activities, requirements and guidelines for systematic management, effective planning, execution and use of production assurance and reliability technology. This is to achieve cost-effective solutions over the life cycle of an asset-development project structured around the following main elements:

— production-assurance management for optimum economy of the facility through all of its life-cycle phases, while also considering constraints arising from health, safety, environment, quality and human factors;

— planning, execution and implementation of reliability technology;

— application of reliability and maintenance data;

— reliability-based design and operation improvement.

For standards on equipment reliability and maintenance performance in general, see the IEC 60300-3 series.

This International Standard designates 12 processes, of which seven are defined as core production-assurance processes and addressed in this International Standard. The remaining five processes are denoted as interacting processes and are outside the scope of this International Standard. The interaction of the core production-assurance processes with these interacting processes, however, is within the scope of this International Standard as the information flow to and from these latter processes is required to ensure that production-assurance requirements can be fulfilled.

This International Standard recommends that the listed processes and activities be initiated only if they can be considered to add value.

The only requirements mandated by this International Standard are the establishment and execution of the production-assurance programme (PAP).

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.

ISO 14224:2006, *Petroleum, petrochemical and natural gas industries — Collection and exchange of reliability and maintenance data for equipment*

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