

Ropný a plynárenský priemysel. Kontrola a zmierňovanie požiarov a explózií na príbrežných ťažobných zariadeniach. Požiadavky a pokyny (ISO 13702: 2015).

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Petroleum and natural gas industries - Control and mitigation of fires and explosions on offshore production installations - Requirements and guidelines (ISO 13702:2015)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/16

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#### **English Version**

Petroleum and natural gas industries - Control and mitigation of fires and explosions on offshore production installations - Requirements and guidelines (ISO 13702:2015)

Industries du pétrole et du gaz naturel - Contrôle et atténuation des feux et des explosions dans les installations en mer - Exigences et lignes directrices (ISO 13702:2015)

Erdöl und Erdgasindustrie - Überwachung und Eindämmung von Feuer und Explosionen auf Offshore-Produktionsplattformen - Anforderungen und Leitlinien (ISO 13702:2015)

This European Standard was approved by CEN on 27 May 2015.

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## **European foreword**

This document (EN ISO 13702:2015) 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 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of an identical text or by endorsement, at the latest by February 2016, and conflicting national standards shall be withdrawn at the latest by February 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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#### **Endorsement notice**

The text of ISO 13702:2015 has been approved by CEN as EN ISO 13702:2015 without any modification.

INTERNATIONAL STANDARD

ISO 13702

Second edition 2015-08-01

# Petroleum and natural gas industries — Control and mitigation of fires and explosions on offshore production installations — Requirements and guidelines

Industries du pétrole et du gaz naturel — Contrôle et atténuation des feux et des explosions dans les installations en mer — Exigences et lignes directrices



ISO 13702:2015(E)



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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 documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

This second edition cancels and replaces the first edition (ISO 13702:1999), which has been technically revised.

The committee responsible for this document is ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries,* Subcommittee SC 6, *Processing equipment and systems.* 

### Introduction

The successful development of the arrangements required to promote safety and environmental protection during the recovery of hydrocarbon resources requires a structured approach to the identification and management of health, safety, and environmental hazards applied during the design, construction, operation, inspection, maintenance, and decommissioning of a facility.

This International Standard has been prepared primarily to assist in the development of new installations through their lifecycle. For existing installations that predate this International Standard, not all requirements are necessarily appropriate. Retrospective application of this International Standard can be undertaken where it is reasonably practicable to do so. During the planning for a major change to an installation, there will be more opportunity to implement the requirements. A careful review of this International Standard will determine those sections which can be utilized in the change.

The technical content of this International Standard is arranged as follows.

- **Objectives**: lists the goals to be achieved by the control and mitigation measures being described.
- Functional requirements: represent the minimum criteria to meet the stated objectives. The functional
  requirements are performance-orientated measures and, as such, are applicable to the variety of
  offshore installations utilized for the development of hydrocarbon resources throughout the world.
- **Annex A (informative)**: typical fire and explosion hazardous events.
- Annex B (informative): describes recognized practices to be considered in conjunction with statutory requirements, industry standards, and individual operator philosophy to determine that the measures necessary are implemented for the control and mitigation of fires and explosions. The guidelines are limited to principal elements and are intended to provide specific guidance which, due to the wide variety of offshore operating environments, cannot be applicable in some circumstances.
- Annex C (informative): typical examples of design requirements for large integrated offshore installations.
- **Bibliography**: lists documents to which informative reference is made in this International Standard.

# Petroleum and natural gas industries — Control and mitigation of fires and explosions on offshore production installations — Requirements and guidelines

## 1 Scope

This International Standard describes the objectives and functional requirements for the control and mitigation of fires and explosions on offshore installations used for the development of hydrocarbon resources.

This International Standard is applicable to the following:

- fixed offshore structures;
- floating systems for production, storage, and offloading;
- petroleum and natural gas industries.

Mobile offshore units as defined in this International Standard and subsea installations are excluded, although many of the principles contained in this International Standard can be used as guidance.

This International Standard is based on an approach where the selection of control and mitigation measures for fires and explosions is determined by an evaluation of hazards on the offshore installation. The methodologies employed in this assessment and the resultant recommendations will differ depending on the complexity of the production process and facilities, type of facility (i.e. open or enclosed), manning levels, and environmental conditions associated with the area of operation.

NOTE Statutory requirements, rules, and regulations can, in addition, be applicable for the individual offshore installation concerned.

#### 2 Normative references

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

ISO/IEC Guide 73, Risk management — Vocabulary

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