
**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*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13702 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum and natural gas industries*, Subcommittee SC 6, *Processing equipment and systems*.

Annexes A, B and C of this International Standard are for information only.

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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 and as such it may not be appropriate to apply some of the requirements to existing installations. Retrospective application of this International Standard should only be undertaken where it is reasonably practicable to do so. During the planning for a major change to an installation there may be more opportunity to implement the requirements and a careful review of this International Standard should be undertaken to determine those sections which can be utilised 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 which shall be satisfied to meet the stated objectives. The functional requirements are performance-orientated measures and, as such, should be applicable to the variety of offshore installations utilized for the development of hydrocarbon resources throughout the world.
- **Guidelines** (annex B) - describe recognized practices which should 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, may in some circumstances not be applicable.
- **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, functional requirements and guidelines 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:

- fixed offshore structures;
- floating production, storage and off-take systems;

for the 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 may 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 the environmental conditions associated with the area of operation.

Users of this International Standard should note that while observing its requirements, they should, at the same time, ensure compliance with such statutory requirements, rules and regulations as may be applicable to the individual offshore installation concerned.

2 Terms, definitions and abbreviated terms

2.1 Terms and definitions

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

2.1.1

abandonment

act of personnel onboard leaving an installation in an emergency

2.1.2

accommodation

place where personnel onboard sleep and spend their off-duty time

NOTE It may include dining rooms, recreation rooms, lavatories, cabins, offices, sickbay, living quarters, galley, pantries and similar permanently enclosed spaces.

2.1.3

active fire protection

AFP

equipment, systems and methods which, following initiation, may be used to control, mitigate and extinguish fires