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Oil and gas industries — Offshore production installations — Requirements and guidelines for emergency response

Industries du pétrole et du gaz — Installations de production en mer — Exigences et lignes directrices pour les interventions d'urgence

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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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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This document was prepared by Technical Committee ISO/TC 67, *Oil and gas industries including lower carbon energy*, Subcommittee SC 6, *Process equipment, piping, systems, and related safety,* 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 second edition cancels and replaces the first edition (ISO 15544:2000), which has been technically revised. It also incorporates the Amendment ISO 15544:2000/Amd.1:2009.

The main changes are as follows:

— clarifications of requirements;

— editorial updates, including a merge of requirements and guidelines into one subclause for each clause;

— terms and definitions and abbreviations have been updated;

— several recommendations have been changed to requirements based on operational experiences;

— Annex G has been removed and references are made to IOGP guidelines,[10] References [11] and [12].

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

Successful safety and environmental protection during the recovery of hydrocarbon resources requires a structured approach to be applied to the identification and assessment of the hazards present during the various phases in the lifecycle of an offshore installation. These principles also apply to the development of emergency response strategy, emergency response measures and procedures. Understanding of the hazards can be achieved by application of ISO 17776,[6] which gives guidelines for hazard identification and assessment for offshore installations.

The content in this document on escape, refuge, evacuation, recovery and rescue is consistent with the content of ISO 13702[4] but addresses in more detail how these aspects are built into development of emergency response measures.

This document has been prepared primarily to assist in the development of new installations. Retrospective application of this document is only relevant where it is reasonable to do so. During the planning of a major change to an installation there can be more opportunities to implement the requirements, and a review of this document enables identification of clauses which can be practically utilized in the change.

This document is based on an approach where the selection of measures for emergency response is determined by an evaluation of hazards on the offshore installation. The methodologies employed in this assessment and the resultant recommendations differ depending on the complexity of the production process and facilities, type of facility (i.e. open or enclosed), number of POB, and the environmental conditions associated with the location of operation.

The principal objectives of this document are to describe both the approach to be used and important considerations in determining the emergency response measures that are required on an offshore installation to:

a) protect people;

b) minimize impact on the environment;

c) minimize impact on assets and operations.

The requirements in Clauses 6 to 15 are arranged as follows.

— Objectives identify the goals to be achieved by the emergency response measures being described.

— Functional requirements and guidelines represent the minimum conditions 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.

— The provisions describe recognized practices for consideration in developing the measures for emergency response.

— Functional requirements are supplemented by guidelines in developing the measures for emergency response in Annexes A to F. The guidelines and annexes are intended for use in conjunction with requirements, industry standards and individual company philosophy, to determine the measures that are necessary for emergency response.

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Oil and gas industries — Offshore production installations — Requirements and guidelines for emergency response

1 Scope

This document specifies objectives, functional requirements and guidelines for emergency response (ER) measures on installations used for the development of offshore hydrocarbon resources. It is applicable to:

— fixed offshore structures;

— floating systems for production, storage and off-loading.

NOTE For mobile offshore units, the ER plans developed in conformance with the requirements and recommendations of the International Maritime Organization (IMO) are generally adequate for the normal, independent operation of the unit in most locations. The following aspects of ER planning are not generally addressed by IMO and are topics intended for inclusion in the scope of this document where relevant to the specific installation:

— area evacuation, e.g. precautionary evacuation in areas of tropical revolving storms;

— combined operations (where an integrated command and ER system is relevant);

— arctic operations;

— uncontrolled flow from a well.

2 Normative references

There are no normative references in this document.

3 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
abandonment
act of personnel onboard leaving an installation in an *emergency* (3.7)

3.2
accommodation
place where personnel onboard sleep and spend their off-duty time

Note 1 to entry: Accommodation can include dining rooms, recreation rooms, lavatories, cabins, offices, sickbay, living quarters, galley, pantries, and similar permanently enclosed spaces.

3.3
control
control of hazards
limiting the extent or duration of a *hazardous event* (3.17)

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