



SLOVENSKI STANDARD SIST EN ISO 15544:2010

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**Industrija za predelavo nafte in zemeljskega plina - Plavajoči proizvodni objekti -
Zahteve in smernice za ukrepanje v nujnih primerih (ISO 15544:2000, vključno z
Amd 1:2009)**

Petroleum and natural gas industries - Offshore production installations - Requirements
and guidelines for emergency response (ISO 15544:2000, including Amd 1:2009)

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Industries du pétrole et du gaz naturel - Installations de production en mer - Exigences et
lignes directrices pour les interventions d'urgence (ISO 15544:2000, y compris Amd
1:2009)

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75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment
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EUROPEAN STANDARD

EN ISO 15544

NORME EUROPÉENNE

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English Version

Petroleum and natural gas industries - Offshore production installations - Requirements and guidelines for emergency response (ISO 15544:2000, including Amd 1:2009)

Industries du pétrole et du gaz naturel - Installations de production en mer - Exigences et lignes directrices en matière d'intervention d'urgence (ISO 15544:2000, y compris Amd 1:2009)

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Foreword

The text of ISO 15544:2000, including Amd 1:2009 has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15544:2010 by 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of an identical text or by endorsement, at the latest by September 2010, and conflicting national standards shall be withdrawn at the latest by September 2010.

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INTERNATIONAL
STANDARD

ISO
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First edition
2000-09-15

**Petroleum and natural gas industries —
Offshore production installations —
Requirements and guidelines for
emergency response**

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

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ISO 15544:2000(E)**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.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 15544 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, C, D, E, F and G 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 be applied to the identification and assessment of the hazards which may be present during the various phases in the lifecycle of an offshore installation. These principles also apply to the development of the strategy, arrangements and procedures required to respond to emergencies. An understanding of the hazards can be achieved by the application of ISO 17776 [4], which gives guidelines for the processes of hazard identification and assessment for the offshore industry.

The content in this International Standard on escape, refuge, evacuation and rescue is consistent with the content of ISO 13702 [1] but addresses in more detail how these aspects are built into development of emergency response measures.

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 reasonable to do so. During the planning of 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 clauses which can be utilized in the change.

This International Standard 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 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.

The verbal form "shall" indicates provisions that are mandatory and "should" indicates provisions to be considered.

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.

The principal objectives of this International Standard 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 in order to:

- assure the safety of all personnel;
- minimize impact on the environment;
- minimize impact on assets and operations.

The technical guidance in clauses 4 to 13 of this International Standard is arranged as follows:

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

Functional requirements represent the minimum conditions 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 describe recognized practices which should be considered in developing the measures for emergency response. 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.

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The functional requirements and guidelines are supplemented by annexes A to H. The guidelines and annexes should be considered in conjunction with statutory requirements, industry standards and individual company philosophy, to determine the particular measures that are necessary for emergency response.

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

1 Scope

This International Standard describes 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 or floating production, storage and off-take systems.

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 generally not addressed by IMO and should be specially considered:

- area evacuation, e.g. precautionary evacuation in areas of tropical revolving storms;
- combined operations wherein an integrated command and ER system should be developed;
- arctic operations;
- uncontrolled flow from a well.

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2 Terms, definitions and abbreviated terms

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

2.1 Terms and definitions

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

control

<of hazards> limiting the extent and/or duration of a hazardous event to prevent escalation

2.1.4

control station

place on the installation from which personnel can monitor the status of the installation, initiate appropriate shutdown actions and undertake emergency communication

ISO 15544:2000(E)**2.1.5****embarkation area**

place from which personnel leave the installation during evacuation

EXAMPLES A helideck and associated waiting area or a lifeboat/liferaft boarding area.

2.1.6**emergency**

hazardous event which cannot be handled by normal measures and requires immediate action to limit its extent, duration or consequences

2.1.7**emergency command centre**

location from which the person in overall charge coordinates ER activities

2.1.8**emergency response****ER**

action taken by personnel on or off the installation to control or mitigate a hazardous event or initiate and execute abandonment

2.1.9**emergency response arrangement**

plant and equipment provided for use under emergency conditions

2.1.10**emergency response measure**

anything provided to facilitate the management of an emergency

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NOTE This is a generic term which includes emergency response arrangements, as well as the planning, procedural and organizational aspects of managing emergencies.

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2.1.11**emergency response team**

group of personnel who have designated responsibilities in an emergency for the safety of the installation, the safety of others or for environmental protection

2.1.12**emergency station**

place to which emergency response personnel go to undertake their emergency duties

2.1.13**escalation**

increase in the consequences of a hazardous event

2.1.14**escape**

act of personnel moving away from a hazardous event to a place where its effects are reduced or removed

2.1.15**escape route**

route leading to the place where people muster, or to an area from which people may leave the installation in an emergency

2.1.16**essential safety system**

system which has a major role in the control and mitigation of a hazardous event and in any subsequent evacuation, escape and rescue activities

2.1.17**evacuation**

planned method of leaving the installation in an emergency

2.1.18**evacuation, escape and rescue****EER**

range of possible actions in an emergency

NOTE Such actions may include escape, muster, refuge, evacuation, escape to the sea and rescue/recovery.

2.1.19**evacuation, escape and rescue strategy****EERS**

strategy that results from an evaluation of events that may require EER

NOTE This strategy describes the measures required and their role.

2.1.20**evacuation route**

escape route which leads from the muster area to the place(s) used for primary or secondary evacuation from the installation

2.1.21**hazard**

potential for human injury, damage to the environment, damage to property or a combination of these

2.1.22**hazard assessment**

process whereby the results of an analysis of a hazard or hazardous event are considered against either judgement, standards, or criteria which have been developed as a basis for decision-making

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2.1.23**hazardous event**

incident which occurs when a hazard is realized

EXAMPLES Release of gas, fire, loss of buoyancy.

2.1.24**life-jacket**

device worn by personnel which has sufficient buoyancy and stability in water to turn the body of an unconscious person and keep the person's mouth clear of the water

2.1.25**mitigation**

limitation of the undesirable effects of a particular event

2.1.26**manned installation**

installation which is normally occupied

2.1.27**mobile offshore unit**

mobile platform, including drilling ships, equipped for drilling for subsea hydrocarbon deposits and/or for purposes other than production and storage of hydrocarbon deposits

2.1.28**muster**

movement of people to a designated area so that the person in overall charge can account for all people and thereby facilitate subsequent emergency response actions