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Mobile and fixed offshore units – Electrical installations – Part 7: Hazardous areas

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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International Standard IEC 61892-7 has been prepared by IEC technical committee 18: Electrical installations of ships and of mobile and fixed offshore units.

This second edition cancels and replaces the first edition published in 1997. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the clauses regarding area classification have been updated based on changes in IEC 60079-10;
b) the clauses regarding emergency shut down have been updated, based on current industry practice;
c) the clauses regarding installation have been updated based on changes in IEC 60079-14;
d) a new clause regarding ventilation of battery compartment for valve regulated batteries has been added.

The text of this standard is based on the following documents:

FDIS	Report on voting
18/1066/FDIS	18/1072/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 61892 series, under the general title *Mobile and fixed offshore units – Electrical installations*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

IEC 61892 forms a series of International Standards intended to ensure safety in the design, selection, installation, maintenance and use of electrical equipment for the generation, storage, distribution and utilization of electrical energy for all purposes in offshore units which are used for the exploration or production of petroleum resources.

This part of IEC 61892 also incorporates and co-ordinates, as far as possible, existing rules and forms a code of interpretation, where applicable, of the requirements laid down by the International Maritime Organization, and constitutes a guide for future regulations which may be prepared and a statement of practice for offshore unit owners, constructors and appropriate organizations.

This standard is based on equipment and practices which are in current use, but it is not intended in any way to impede development of new or improved techniques.

The ultimate aim has been to produce a set of International Standards exclusively for the offshore petroleum industry.

MOBILE AND FIXED OFFSHORE UNITS – ELECTRICAL INSTALLATIONS –

Part 7: Hazardous areas

1 Scope

This part of IEC 61892 contains provisions for hazardous areas classification and choice of electrical installation in hazardous areas in mobile and fixed offshore units, including pipeline, pumping or 'pigging' stations, compressor stations and exposed location single buoy moorings, used in the offshore petroleum industry for drilling, processing and for storage purposes.

It applies to all installations, whether permanent, temporary, transportable or hand-held, to a.c. installations up to and including 35 000 V and d.c. installations up to and including 750 V.(a.c. and d.c. voltages are nominal values).

This standard does not apply to electrical installations in rooms used for medical purposes, or in tankers.

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.

IEC 60079-0:2007, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-1:2007, *Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure “d”*

IEC 60079-2:2007, *Explosive atmospheres – Part 2: Equipment protection by pressurized enclosure “p”*

IEC 60079-5:2007, *Explosive atmospheres – Part 5: Equipment protection by powder filling “q”*

IEC 60079-6:2007, *Explosive atmospheres – Part 6: Equipment protection by oil immersion “o”*

IEC 60079-7:2006, *Explosive atmospheres – Part 7: Equipment protection by increased safety “e”*

IEC 60079-10, *Electrical apparatus for explosive gas atmospheres – Part 10: Classification of hazardous areas*

IEC 60079-11:2006, *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*

IEC 60079-14:2002, *Electrical apparatus for explosive gas atmospheres – Part 14: Electrical installations in hazardous areas (other than mines)*

IEC 60079-15:2005, *Electrical apparatus for explosive gas atmospheres – Part 15: Construction, test and marking of type of protection "n" electrical apparatus*

IEC 60079-18:2004, *Electrical apparatus for explosive gas atmospheres – Part 18: Construction, test and marking of type of protection encapsulation "m" electrical apparatus*

IEC 60079-20, *Electrical apparatus for explosive gas atmospheres – Part 20: Data for flammable gases and vapours, relating to the use of electrical apparatus*

IEC 60079-26:2006, *Explosive atmospheres – Part 26: Equipment with equipment protection level (EPL) Ga*

IEC 61892-1, *Mobile and fixed offshore units – Electrical installations – Part 1: General requirements and conditions*

IEC 61892-2, *Mobile and fixed offshore units – Electrical installations – Part 2: System design*

IEC 61892-3, *Mobile and fixed offshore units – Electrical installations – Part 3: Equipment*

IEC 61892-4, *Mobile and fixed offshore units – Electrical installations – Part 4: Cables*

IEC 61892-5, *Mobile and fixed offshore units – Electrical installations – Part 5: Mobile units*

IEC 61892-6, *Mobile and fixed offshore units – Electrical installations – Part 6: Installation*

IMO MODU code*: Code for the construction and equipment of mobile offshore drilling units*