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**Jedrski objekti - Merilna in nadzorna oprema - Načrtovanje, lokacija in merila za uporabo vgrajene opreme za območno nadzorovanje stopnje sevanja gama med normalnim obratovanjem in ob pričakovanih obratovalnih dogodkih**

Nuclear facilities - Instrumentation and control systems - Design, location and application criteria for installed area gamma radiation dose rate monitoring equipment for use during normal operation and anticipated operational occurrences

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<https://standards.iteh.ai/catalog/standards/sist/b7a9861f-db87-494d-8f05-7a2a55ce7e3b/osist-pren-iec-61031-2022>

**Ta slovenski standard je istoveten z: prEN IEC 61031:2022**

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**ICS:**

13.280	Varstvo pred sevanjem	Radiation protection
27.120.10	Reaktorska tehnika	Reactor engineering

**oSIST prEN IEC 61031:2022**

**en**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN IEC 61031**

April 2022

ICS 13.280; 27.120.10

English Version

**Nuclear facilities - Instrumentation and control systems - Design,  
location and application criteria for installed area gamma  
radiation dose rate monitoring equipment for use during normal  
operation and anticipated operational occurrences  
(IEC 61031:2020)**

To be completed  
(IEC 61031:2020)

To be completed  
(IEC 61031:2020)

This draft European Standard is submitted to CENELEC members for enquiry.  
Deadline for CENELEC: 2022-07-01.

The text of this draft consists of the text of IEC 61031:2020 (45A/1328/FDIS).

If this draft becomes a European Standard, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CENELEC in three official versions (English, French, German).  
A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**prEN IEC 61031:2022 (E)****European foreword**

This document (prEN IEC 61031:2022) consists of the text of document IEC 61031:2020, prepared by IEC/TC 45 "Instrumentation, control and electrical power systems of nuclear facilities"

This document is currently submitted to the CENELEC Enquiry.

The following dates are proposed:

- latest date by which the existence of this document (doa) dor + 6 months  
has to be announced at national level
- latest date by which this document has to be (dop) dor + 12 months  
implemented at national level by publication of an  
identical national standard or by endorsement
- latest date by which the national standards (dow) dor + 36 months  
conflicting with this document have to be withdrawn  
(to be confirmed or  
modified when voting)

As stated in the nuclear safety directive 2009/71/EURATOM, Chapter 1, Article 2, item 2, Member States are not prevented from taking more stringent safety measures in the subject-matter covered by the Directive, in compliance with Community law.

In a similar manner, this European standard does not prevent Member States from taking more stringent nuclear safety and/or security measures in the subject-matter covered by this standard.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60761-1:2002	NOTE	Harmonized as EN 60761-1:2004
IEC 60761-2	NOTE	Harmonized as EN 60761-2
IEC 60761-3:2002	NOTE	Harmonized as EN 60761-3:2004 (not modified)
IEC 60761-4:2002	NOTE	Harmonized as EN 60761-4:2004 (not modified)
IEC 60761-5:2002	NOTE	Harmonized as EN 60761-5:2004
IEC 60861:2006	NOTE	Harmonized as EN 60861:2008
IEC 60964:2018	NOTE	Harmonized as EN IEC 60964:2019 (not modified)
IEC 61500:2018	NOTE	Harmonized as EN IEC 61500:2019 (not modified)
IEC 61508-1:2010	NOTE	Harmonized as EN 61508-1:2010 (not modified)
IEC 61508-2:2010	NOTE	Harmonized as EN 61508-2:2010 (not modified)
IEC 61508-4:2010	NOTE	Harmonized as EN 61508-4:2010 (not modified)
IEC 62645:2019	NOTE	Harmonized as EN IEC 62645:2020 (not modified)
IEC 63046	NOTE	Harmonized as EN IEC 63046
ISO 4037-1:2019	NOTE	Harmonized as EN ISO 4037-1:2021 (not modified)
ISO 4037-3:2019	NOTE	Harmonized as EN ISO 4037-3:2021 (not modified)
ISO/IEC 27001:2013	NOTE	Harmonized as EN ISO/IEC 27001:2017 (not modified)
ISO/IEC 27002:2013	NOTE	Harmonized as EN ISO/IEC 27002:2017 (not modified)

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-395	2014	International Electrotechnical Vocabulary - Part 395: Nuclear instrumentation: Physical phenomena, basic concepts, instruments, systems, equipment and detectors	-	-
IEC 60532	2010	Radiation protection instrumentation - Installed dose rate meters, warning assemblies and monitors - X and gamma radiation of energy between 50 keV and 7 MeV	-	-
IEC 60880	1986	Software for computers in the safety systems of nuclear power stations	-	-
IEC 60951-1	-	Radiation monitoring equipment for accident and post-accident conditions in nuclear power plants. Part 1: General requirements	-	-
IEC 60951-3	-	Radiation monitoring equipment for accident and post-accident conditions in nuclear power plants. Part 3: High range area gamma radiation dose rate monitoring equipment	-	-
IEC 60980	1989	Recommended practices for seismic qualification of electrical equipment of the safety system for nuclear generating stations	-	-
IEC 60987	-	Nuclear power plants - Instrumentation and control important to safety - Hardware design requirements for computer-based systems	EN 60987	-
IEC 61226	2009	Nuclear power plants - Instrumentation and control important to safety - Classification of instrumentation and control functions	EN 61226	2010
IEC 61513	2011	Nuclear power plants - Instrumentation and control important to safety - General requirements for systems	EN 61513	2013
IEC 62003	2020	Nuclear power plants - Instrumentation, control and electrical power systems - Requirements for electromagnetic compatibility testing	EN IEC 62003	2020
IEC 62138	2018	Nuclear power plants - Instrumentation and control systems important to safety - Software aspects for computer-based systems performing category B or C functions	EN IEC 62138	2019

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IEC 62566	2012	Nuclear power plants - Instrumentation and control important to safety - Development of HDL-programmed integrated circuits for systems performing category A functions	EN 62566	2014
IEC 62701	2014	Fluids for electrotechnical applications -- Recycled mineral insulating oils for transformers and switchgears	EN 62701	2014
IEC/IEEE 60780-323	2016	Nuclear facilities - Electrical equipment important to safety - Qualification	EN 60780-323	2017

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IEC 61031

Edition 2.0 2020-07

# INTERNATIONAL STANDARD

**Nuclear facilities – Instrumentation and control systems – Design, location and application criteria for installed area gamma radiation dose rate monitoring equipment for use during normal operation and anticipated operational occurrences**

[oSIST prEN IEC 61031:2022](https://standards.iteh.ai/catalog/standards/sist/b7a9861f-db87-494d-8f05-7a2a55ce7e3b/osist-pren-iec-61031-2022)

<https://standards.iteh.ai/catalog/standards/sist/b7a9861f-db87-494d-8f05-7a2a55ce7e3b/osist-pren-iec-61031-2022>

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

ICS 13.280; 27.120.10

ISBN 978-2-8322-8586-2

**Warning! Make sure that you obtained this publication from an authorized distributor.**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**NUCLEAR FACILITIES –  
INSTRUMENTATION AND CONTROL SYSTEMS –  
DESIGN, LOCATION AND APPLICATION CRITERIA FOR  
INSTALLED AREA GAMMA RADIATION DOSE RATE MONITORING  
EQUIPMENT FOR USE DURING NORMAL OPERATION AND ANTICIPATED  
OPERATIONAL OCCURRENCES**

## FOREWORD

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International Standard IEC 61031 has been prepared by subcommittee 45A: Instrumentation, control and electrical power systems of nuclear facilities, of IEC technical committee 45: Nuclear instrumentation.

This document is to be used in conjunction with IEC 60532:2010.

This second edition cancels and replaces the first edition published in 1990. This edition constitutes a technical revision.

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

- a) The scope of the standard is extended from nuclear power plants to nuclear facilities and the title is accordingly aligned.
- b) The relevant standards published by IEC SC 45A since the publication of the first edition are taken into account and referred to when relevant.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
45A/1328/FDIS	45A/1341/RVD

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

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

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
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