SLOVENSKI STANDARD
SIST EN IEC 61031:2022

01-oktober-2022

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 (IEC 61031:2020)

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)

Kerntechnische Anlagen - Leittechnische Systeme - Auslegungs-, Anordnungs- und Anwendungskriterien für fest installierte Einrichtungen zur Umgebungsüberwachung der Gammadosisleistung zum Einsatz während Normalbetrieb und bei anzunehmenden betrieblichen Ereignissen (IEC 61031:2020)

Installations nucléaires - Systèmes d'instrumentation et de contrôle-commande - Critères de conception, d'implantation et d'application pour les matériels de surveillance du débit de dose de rayonnement gamma à poste fixe, utilisés pendant le fonctionnement normal et lors d'incidents de fonctionnement prévus (IEC 61031:2020)

Ta slovenski standard je istoveten z: EN IEC 61031:2022

ICS:

13.280	Varstvo pred sevanjem	Radiation protection
27.120.10	Reaktorska tehnika	Reactor engineering

SIST EN IEC 61031:2022 en

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 61031

August 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)

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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

Ref. No. EN IEC 61031:2022 E

European foreword

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

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-08-08
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-08-08

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN-CENELEC shall not be held responsible for identifying any or all such patent rights.

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.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN and CENELEC websites.

Endorsement notice

The text of the International Standard IEC 61031:2020 was approved by CENELEC as a European Standard without any modification.

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 (modified)
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 (modified)
IEC 60861:2006	NOTE	Harmonized as EN 60861:2008 (modified)
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 61508-3:2010	NOTE	Harmonized as EN 61508-3:2010 (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 63046:2020	NOTE	Harmonized as EN IEC 63046:2021 (not modified)
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.

Publication	Year	Title	EN/HD	Year
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

Publication	Year	Title	EN/HD	Year
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
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

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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 13.280; 27.120.10

ISBN 978-2-8322-8586-2

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CONTENTS

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 refered to when relevant.