
Instrumenti za zaščito pred sevanjem - Instrumenti za merjenje radona in njegovih razpadnih produktov - 3. del: Posebne zahteve za instrumente za merjenje razpadnih produktov radona

Radiation protection instrumentation - Radon and radon decay product measuring instruments - Part 3: Specific requirements for radon decay product measuring instruments

Strahlenschutz-Messgeräte - Geräte für die Messung von Radon und Radon-Folgeprodukten - Teil 3: Besondere Anforderungen an Messgeräte für Radonfolgeprodukte

[SIST EN 61577-3:2015](https://standards.iteh.ai/catalog/standards/sist/2651a6da-e561-40fc-b1c0-10c103603d4a/sist-en-61577-3-2015)

Instrumentation pour la radioprotection Instruments de mesure du radon et des descendants du radon - Partie 3: Exigences spécifiques concernant les instruments de mesure des descendants du radon

Ta slovenski standard je istoveten z: EN 61577-3:2014

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13.280	Varstvo pred sevanjem	Radiation protection
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EUROPEAN STANDARD

EN 61577-3

NORME EUROPÉENNE

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December 2014

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English Version

Radiation protection instrumentation - Radon and radon decay product measuring instruments - Part 3: Specific requirements for radon decay product measuring instruments (IEC 61577-3:2011 , modified)

Instrumentation pour la radioprotection - Instruments de mesure du radon et des descendants du radon - Partie 3: Exigences spécifiques concernant les instruments de mesure des descendants du radon (CEI 61577-3:2011 , modifiée)

Strahlenschutz-Messgeräte - Geräte für die Messung von Radon und Radon-Folgeprodukten - Teil 3: Besondere Anforderungen an Messgeräte für Radonfolgeprodukte (IEC 61577-3:2011 , modifiziert)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN 61577-3:2014) consists of the text of IEC 61577-3:2011 prepared by IEC/SC 45B "Radiation protection instrumentation" of IEC/TC 45 "Nuclear instrumentation", together with the common modifications prepared by CLC/TC 45B "Radiation protection instrumentation".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2015-11-17
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2017-11-17
with this document have to be withdrawn

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Endorsement notice

The text of the International Standard IEC 61577-3:2011 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

2 Normative references

Add IEC 61577-1 and IEC 61577-4.

6 Test conditions

6.4 Test sources

6.4.2 Reference atmospheres

Replace in the second paragraph 150 nm with 100 nm.

9 Requirements and tests concerning environmental performance

9.2 Number concentration of aerosols

9.2.2 Test method

Replace in the second paragraph "adjusted to 10^8 m^{-3} with an accuracy of $\pm 10 \%$." with "adjusted to about 10^8 m^{-3} ."

Replace in the third paragraph " 10^{12} m^{-3} " with "about 10^{12} m^{-3} " and replace " 10^{12} m^{-3} " with "about 10^{12} m^{-3} ".

Table 1 – Reference conditions and standard test conditions

Replace the line for ambient temperature as follows:

Ambient temperature	20 °C	18 °C to 24 °C
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Replace the line for relative humidity as follows:

Relative humidity	65 %	40 % to 75 %
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Replace the line for ambient dose equivalent rate as follows:

Ambient dose equivalent rate	Negligible	< 0,25 $\mu\text{Sv}\cdot\text{h}^{-1}$
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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-394	-	International Electrotechnical Vocabulary (IEV) - Part 394: Nuclear instrumentation - Instruments, systems, equipment and detectors	-	-
IEC 60068-2-27	-	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	-
IEC 61000-6-4	-	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments	EN 61000-6-4	-
IEC 61140	-	Protection against electric shock - Common aspects for installation and equipment	EN 61140	-
IEC 61187	-	Electrical and electronic measuring equipment - Documentation	EN 61187	-
IEC 61577-1	-	Radiation protection instrumentation - Radon and radon decay product measuring instruments - Part 1: General principles	-	-
IEC 61577-4	-	Radiation protection instrumentation - Radon and radon decay product measuring instruments - Part 4: Equipment for the production of reference atmospheres containing radon isotopes and their decay products (STAR)	EN 61577-4	-
ISO/IEC Guide 98-3	2008	Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)	-	-



IEC 61577-3

Edition 2.0 2011-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Radiation protection instrumentation – Radon and radon decay product measuring instruments –
Part 3: Specific requirements for radon decay product measuring instruments**

**Instrumentation pour la radioprotection – Instruments de mesure du radon et
des descendants du radon –
Partie 3: Exigences spécifiques concernant les instruments de mesure des
descendants du radon**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RADIATION PROTECTION INSTRUMENTATION –
RADON AND RADON DECAY PRODUCT
MEASURING INSTRUMENTS –**
**Part 3: Specific requirements for radon decay product
measuring instruments**

FOREWORD

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International Standard IEC 61577-3 has been prepared by sub-committee 45B: Radiation protection instrumentation, of IEC technical committee 45: Nuclear instrumentation.

This second edition of IEC 61577-3 cancels and replaces IEC 61577-3:2002 and IEC 61263:1994. This edition constitutes a technical revision.

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

- Implementation of new requirements and tests concerning radiation detection performance.
- Implementation of new requirements and tests concerning environmental performance.

- Harmonization of the requirements and tests concerning electrical and mechanical performance with other standards in the area of radiation protection instrumentation.

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

FDIS	Report on voting
45B/700/FDIS	45B/716/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 61577 series, under the general title *Radiation protection instrumentation – Radon and radon decay product measuring instruments*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

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- withdrawn,
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