

SLOVENSKI STANDARD SIST EN ISO 20553:2025

01-marec-2025

Radiološka zaščita - Spremljanje stanja delavcev, ki so poklicno izpostavljeni tveganju notranje kontaminacije z radioaktivnim materialom (ISO 20553:2025)

Radiation protection - Monitoring of workers occupationally exposed to a risk of internal contamination with radioactive material (ISO 20553:2025)

Strahlenschutz - Überwachung von Arbeitnehmern, die beruflich der Gefahr einer internen Kontamination mit radioaktiven Stoffen ausgesetzt sind (ISO 20553:2025)

Radioprotection - Surveillance professionnelle des travailleurs exposés à un risque de contamination interne par des matériaux radioactifs (ISO 20553:2025)

Ta slovenski standard je istoveten z: EN ISO 20553:2025

ICS:

13.100 Varnost pri delu. Industrijska Occupational safety.

higiena Industrial hygiene

13.280 Varstvo pred sevanjem Radiation protection

SIST EN ISO 20553:2025 en,fr,de

iTeh Standards (https://standards.iteh.ai) Document Preview

<u> 8181 EN 180 20553:2025</u>

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 20553

January 2025

ICS 13.280

Supersedes EN ISO 20553:2017

English Version

Radiation protection - Monitoring of workers occupationally exposed to a risk of internal contamination with radioactive material (ISO 20553:2025)

Radioprotection - Surveillance professionnelle des travailleurs exposés à un risque de contamination interne par des matériaux radioactifs (ISO 20553:2025) Strahlenschutz - Überwachung von beruflich strahlenexponierten Personen, bei denen ein Risiko der Kontamination mit radioaktiven Stoffen besteht (ISO 20553:2025)

This European Standard was approved by CEN on 20 January 2025.

CEN 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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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

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



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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

EN ISO 20553:2025 (E)

Contents	Page
European foreword	3

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20553:2025

European foreword

This document (EN ISO 20553:2025) has been prepared by Technical Committee ISO/TC 85 "Nuclear energy, nuclear technologies, and radiological protection" in collaboration with Technical Committee CEN/TC 430 "Nuclear energy, nuclear technologies, and radiological protection" 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 July 2025, and conflicting national standards shall be withdrawn at the latest by July 2025.

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

This document supersedes EN ISO 20553:2017.

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 website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 20553:2025 has been approved by CEN as EN ISO 20553:2025 without any modification.

iTeh Standards (https://standards.iteh.ai) Document Preview

<u> 8181 EN 180 20553:2025</u>



International **Standard**

ISO 20553

Radiation protection — Monitoring of workers occupationally exposed to a risk of internal contamination with radioactive material

Radioprotection — Surveillance professionnelle des travailleurs exposés à un risque de contamination interne par des substances radioactives Document Preview

Second edition 2025-01

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20553:2025

https://standards.iteh.ai/catalog/standards/sist/7d43b302-5357-470b-842d-bc6e3413e542/sist-en-iso-20553-2025



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Contents		Page	
Fore	word		v
Intr	oductio	n	vi
1	Scope	e	1
2	-	native references	
3		is and definitions	
4		pols and abbreviated terms	
5		ose and need for monitoring programmes	
3	5.1 5.2	General aspects Types of monitoring 5.2.1 Workplace monitoring 5.2.2 Individual monitoring	6 7 7
	5.3	Categories of monitoring programmes 5.3.1 Routine monitoring programme 5.3.2 Special monitoring programme 5.3.3 Task-related monitoring programme 5.3.4 Confirmatory monitoring programme	7 8 8
6	Desig 6.1 6.2	General requirements Routine individual monitoring 6.2.1 General 6.2.2 Methods 6.2.3 Determining the frequency of monitoring 6.2.4 Methods and time intervals for commonly encountered radionuclides 6.2.5 Tolerances for monitoring intervals	8 9 9 9 9
	6.3	Routine workplace monitoring	
7 ps://s	Desig 7.1 standard 7.2	Special monitoring programme Special individual monitoring 7.1.1 General 7.1.2 In vivo measurements and in vitro analyses 7.1.3 Other techniques Special workplace monitoring	17 17 17 17
8	Desig	gning a task-related monitoring programme	18
9	Desig	gning a confirmatory monitoring programme	18
10	10.1	Monitoring in specific cases Monitoring of nuclear medicine and radiopharmacy staff exposed to short-lived radionuclides	18
	10.2 10.3 10.4	Intakes of actinides	19
11	Inves	tigation levels	19
12	Reco 12.1	rding, documentation and reporting Recording and documentation 12.1.1 General 12.1.2 Samples 12.1.3 Measurements 12.1.4 Dose assessment Reporting	20 20 20 21
	12.2	12.2.1 Routine monitoring programmes 12.2.2 Special monitoring programmes 12.2.3 Worker information	21 22

13 Quality management	22
Annex A (informative) Techniques and detection limits of in vitro bioassay or in vivo measurements selected to calculate routine monitoring time intervals for the radionuclides considered in Tables 1, 2, 3 and 4	23
Annex B (informative) Recommended methods for special monitoring programmes after inhalation	25
Bibliography	27

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20553:2025

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 85, *Nuclear energy, nuclear technologies, and radiological protection,* Subcommittee SC 2, *Radiological protection,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 430, *Nuclear energy, nuclear technologies, and radiological protection,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 20553:2006), which has been technically revised. and stehnically standards/sist/7d43b302-5357-470b-842d-bc6e3413e342/sist-en-iso-20553-2025

The main changes are as follows:

— the reference to the recent publication of ICRP Occupational Intakes of Radionuclides (OIR) series, instead of ICRP publications 66 and 78, to calculate the maximum time intervals for routine monitoring programmes.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.