SLOVENSKI STANDARD
SIST EN ISO 15382:2017

01-december-2017

Radiološka zaščita - Postopki za nadzorovanje doze za očesne leče, kožo in okončine (ISO 15382:2015)

Radiological protection - Procedures for monitoring the dose to the lens of the eye, the skin and the extremities (ISO 15382:2015)

Strahlenschutz - Verfahren für die Überwachung der Dosis von Augenlinse, Haut und Extremitäten (ISO 15382:2015)

Radioprotection - Procédures pour la surveillance des doses au cristallin, à la peau et aux extrémités (ISO 15382:2015)

Ta slovenski standard je istoveten z: **EN ISO 15382:2017**

ICS:

13.280	Varstvo pred sevanjem	Radiation protection

SIST EN ISO 15382:2017 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 15382

October 2017

ICS 13.280

English Version

Radiological protection - Procedures for monitoring the dose to the lens of the eye, the skin and the extremities (ISO 15382:2015)

Radioprotection - Procédures pour la surveillance des doses au cristallin, à la peau et aux extrémités (ISO 15382:2015)

Strahlenschutz - Verfahren für die Überwachung der Dosis von Augenlinse, Haut und Extremitäten (ISO 15382:2015)

This European Standard was approved by CEN on 13 September 2017.

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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.

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

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Ref. No. EN ISO 15382:2017 E

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European foreword

The text of ISO 15382:2015 has been prepared by Technical Committee ISO/TC 85 “Nuclear energy, nuclear technologies, and radiological protection” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 15382:2017 by 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of an identical text or by endorsement, at the latest by April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

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.

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Endorsement notice

The text of ISO 15382:2015 has been approved by CEN as EN ISO 15382:2017 without any modification.

INTERNATIONAL STANDARD

ISO 15382

Second edition
2015-12-01

Radiological protection — Procedures for monitoring the dose to the lens of the eye, the skin and the extremities

Radioprotection — Procédures pour la surveillance des doses au cristallin, à la peau et aux extrémités

Reference number
ISO 15382:2015(E)

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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 documents 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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 85, *Nuclear energy, nuclear technologies and radiological protection*, Subcommittee SC 2, *Radiological protection*.

This second edition cancels and replaces the first edition (ISO 15382:2002), which has been technically revised. The main changes are the addition of procedures for monitoring the dose to the lens of the eye.

Introduction

The human body has to be protected from effects of ionizing radiation. The stochastic effects are covered by the limit on the effective dose while tissue reactions (deterministic effects) are covered by the dose limits for specific organs. The human skin has to be protected from tissue reactions, like erythema and ulceration. For the lens of the eye, there is the risk of radiation induced opacities and cataract at elevated exposures. To protect the skin of the whole body, the extremities, and the lens of the eye, separate dose limits are recommended by the International Commission on Radiological Protection (ICRP). These separate dose limits are needed because, in case of localized exposures, the organ doses to the skin and the lens of the eye could exceed these limits even if the effective doses were lower than the limit.

Specific dosimetry is needed to monitor these doses and to assess compliance with applicable limits. There are some situations where the correct assessment of the exposure of the skin, extremities, and lens of the eye can be important. In the nuclear sector, there can be exposure due to weakly penetrating radiation caused by unshielded open radioactive sources, or by work in glove boxes. These types of exposure can occur, in particular, in connection with contamination. Exposure to weakly penetrating radiation from radioactive noble gases in room air also has to be considered. In the medical field, doses to extremities and doses to the lens of the eye can be important during interventional procedures and in nuclear medicine.

Monitoring the extremities and the lens of the eye is not always straightforward, and many practical problems arise for the application of monitoring in the workplace. As a result, monitoring is often not done as it should be, or not done at all. This International Standard provides guidance on how and when this monitoring should be done, for all the different types of workplace fields.

This International Standard is directed to all who are involved in the dosimetry of the skin, extremities, and the lens of the eye, like for example, radiation protection officers, regulators, workers, dosimetry services, etc.