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Nuclear energy — Reference beta-particle radiation —

Part 3:

Calibration of area and personal dosimeters and the determination of their response as a function of beta radiation energy and angle of incidence

Énergie nucléaire — Rayonnement bêta de référence —

Partie 3: Étalonnage des dosimètres individuels et des dosimètres de zone et détermination de leur réponse en fonction de l'énergie et de l'angle d'incidence du rayonnement bêta



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Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions.....	2
4 Procedures applicable to all area and personal dosimeters.....	9
4.1 General principles.....	9
4.2 Determination of the calibration factor and of the correction factor	12
5 Particular procedures for area dosimeters	13
5.1 General principles.....	13
5.2 Quantities to be measured.....	13
6 Particular procedures for personal dosimeters	13
6.1 General principles.....	13
6.2 Quantity to be measured.....	13
6.3 Experimental conditions	13
7 Presentation of results	15
7.1 Records and certificates	15
7.2 Statement of uncertainties.....	15
Annex A (normative) Symbols and abbreviated terms	17
Annex B (normative) Reference conditions	19
Annex C (informative) Conversion coefficients for some beta reference radiation fields	21
Bibliography	23

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 6980-3 was prepared by Technical Committee ISO/TC 85, *Nuclear energy*, Subcommittee SC 2, *Radiation protection*.

This first edition of ISO 6980-3, together with ISO 6980-1:2006 and ISO 6980-2:2004, cancels and replaces ISO 6980:1996, which has been technically revised.

ISO 6980 consists of the following parts, under the general title *Nuclear energy — Reference beta-particle radiation*:

- *Part 1: Methods of production*
- *Part 2: Calibration fundamentals related to basic quantities characterizing the radiation field*
- *Part 3: Calibration of area and personal dosimeters and the determination of their response as a function of beta radiation energy and angle of incidence*

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Introduction

ISO 6980 covers the production, calibration and use of beta-particle reference radiation fields for the calibration of dosimeters and doserate meters for protection purposes. ISO 6980-1 describes the methods of production and characterization of the reference radiation. ISO 6980-2 describes procedures for the determination of absorbed dose rate to a reference depth of tissue from beta particle reference radiation fields. This part of ISO 6980 describes procedures for the calibration of dosimeters and doserate meters and the determination of their response as a function of beta-particle energy and angle of beta-particle incidence.