
**Measurement of radioactivity —
Alpha-, beta- and photon emitting
radionuclides — Reference
measurement standard specifications
for the calibration of surface
contamination monitors**

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*Mesurage de la radioactivité — Radionucléides émetteurs alpha,
bêta et photoniques — Spécifications des étalons de référence pour
l'étalonnage des contrôleurs de contamination de surface*

ISO 8769:2020

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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.

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This document was prepared by Technical Committee ISO/TC 85, *Nuclear energy*, Subcommittee SC 2, *Radiological protection*.

This fourth edition cancels and replaces the third edition (ISO 8769:2016), which has been technically revised. The changes compared to the previous edition are as follows:

- In order to maintain consistency with terms described in the International Vocabulary of Metrology or ISO/IEC 17025^[16], “reference measurement standard”, “working measurement standard” and “transfer measurement device” were adopted respectively instead of a “reference source”, “working source” and “reference transfer instrument”.
- [5.1](#) b): “a surface layer of thickness equal to the saturation layer thickness” was modified to “a surface layer of thickness equal to or less than the saturation layer thickness”.
- [5.2.3](#) and [5.3.3](#): The statement of “minus its relative standard uncertainty” was removed.
- [5.4.3](#): Requirement for the re-measurement of uniformity was added as follows; “In case that significant change not due to half-life is found on the re-calibration of surface emission rate, re-measurement of uniformity is required.”

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