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BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY
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Draft Indian Standard

Radiation Protection — Dose Assessment for the Monitoring of Workers for Internal Radiation Exposure

भारतीय मानक मसौदा

विकिरण से सुरक्षा - आंतरिक विकिरण जोखिम के लिए श्रमिकों की निगरानी हेतु खुराक का मूल्यांकन

(ICS 13.280)

Nuclear Energy for Peaceful Applications Sectional Committee, CHD 30	**Last Date for Comments**: **7th October 2025**

Nuclear Energy for Peaceful Applications Sectional Committee, CHD 30

NATIONAL FOREWORD

(Formal clauses will be added later)

This standard defines minimum requirements for evaluating worker monitoring data related to internal exposure to radioactive substances. It sets out standardized procedures and assumptions to interpret monitoring results reliably, quantify exposures, and support compliance with radiation protection regulations. The standard also addresses factors like uncertainty, data below detection limits, multiple measurement methods, reporting, and quality assurance.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions and terminologies are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words `International Standard' appear referring to this standard, they should be read as `Indian Standard'.

b) Comma (,) has been used as a decimal marker in the International Standard, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

International Standards/ documents	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 5725-1 Accuracy (trueness and precision) of measurement methods and results — Part 1: General principles and definitions	IS 15393 (Part 1):2003/ISO 5725-1:1994 Accuracy (Trueness And Precision) of measurement methods and results: Part 1 general principles and definitions	Identical
ISO 5725-3 Accuracy (trueness and precision) of measurement methods and results — Part 3: Intermediate measures of the precision of a standard measurement method	IS 15393 (Part 3):2003/ISO 5725-3:1994 Accuracy (Trueness And Precision) of measurement methods and results: Part 3 intermediate measures of the precision of a standard measurement method	Identical

The technical committee has also reviewed the provisions of the following International Standards/ documents referred in this adopted standard and has decided that they are acceptable for use in conjunction with this Standard:

International Standards/ documents	*Title*
ISO/IEC Guide 98-3	Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)
ISO/IEC Guide 99,	International vocabulary of metrology — Basic and general concepts and associated terms (VIM)
ISO 5725-2	Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method
ISO 20553	Radiation protection — Monitoring of workers occupationally exposed to a risk of internal contamination with radioactive material
ISO 28218	Radiation protection — Performance criteria for radiobioassay

In this adopted standard, reference appears to certain International Standards/documents where the standard atmospheric conditions to be observed are stipulated which are not applicable to tropical/subtropical countries. The applicable standard atmospheric conditions for Indian conditions are (27 ± 2) ℃ and (65 ± 5) percent relative humidity and shall be observed while using this standard.

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values *(second revision)*’.

FOR COMPLETE TEXT OF THE DOCUMENT, KINDLY REFER ISO 27048: 2011

Note: The technical content of the document has not been enclosed as these are identical with the corresponding ISO Standard. For obtaining the copy of the complete ISO Standard, please contact:

Scientist 'F'/Senior Director and Head (Chemical)
Chemical Department
Bureau of Indian Standards
Manak Bhavan, 9, Bahadur Shah Zafar Marg
New Delhi-110002
Telephone: 011-23236428

Email: chd@bis.gov.in or chd30@bis.org.in