Calibration Guides and Expert Reports for Ionising Radiation

Reference	Title
GPG154	Preparation of radioactive phantoms with an activity traceable to international standards Preparation of radioactive phantoms with an activity traceable to international standards GPG154 - NPL
GPG114	Testing & calibration of tritium-in-air monitors for radiation protection Testing & calibration of tritium-in-air monitors for radiation protection GPG114 - NPL
GPG82	Testing of equipment for monitoring airborne radioactive particulate in the workplace Testing of equipment for monitoring airborne radioactive particulate in the workplace GPG82 - NPL
IRMF MGPG14	The Examination, Testing and Calibration of Portable Radiation Protection Instruments https://srp-uk.org/_getSrpDocument/800
IRMF MGPG29	The Examination, Testing and Calibration of Installed Radiation Protection Instruments https://srp-uk.org/_getSrpDocument/836
IRMF MGPG30	Measurement Good Practice Guide No.30 Practical Radiation Monitoring https://srp-uk.org/_getSrpDocument/700
IRMF MGPG49	The Assessment of Uncertainty in Radiological Calibration and Testing https://srp-uk.org/_getSrpDocument/792
IRMF MGPG113	The Examination, Testing and Calibration of Electronic Personal Dosemeters https://srp-uk.org/_getSrpDocument/827
UKAS LAB 26	Calibration of radionuclide sources - Activity, particle or photon emission rate, air kerma rate https://www.ukas.com/wp-content/uploads/schedule_uploads/759162/LAB-26-Calibration-of-Radionuclide-Sources.pdf

NPL Good Practice Guides (GPG)

NPL's Good Practice Guides are a practical and informative series of documents designed to meet the needs of industry. They are a user-friendly way to find out about what to measure, how to measure it and how to understand the results. Based on NPL's expertise and experience, the guides will enable you, your customers and your suppliers to be in agreement on measurement issues.

IRMF Measurement Good Practice Guides

The Ionising Radiation Metrology Forum (IRMF) is organised and supported by the UK Society for Radiological Protection's Metrology and Measurement Science Committee. It consists of representatives from a wide range of UK organisations involved in the measurement of ionising radiation. One of its main aims is the promotion of good

practice in radiological measurements, including the need for traceability to the appropriate national standards. A further activity is the organisation of measurement comparisons in the UK. The IRMF is responsible for reviewing and maintaining five Measurement Good Practice Guides, which were originally produced by the National Physical Laboratory.

UKAS Guides

UKAS is the United Kingdom Accreditation Service. The documents provide guidance, in a form suitable for a wide audience, on meeting the requirements for accreditation. They are not a prescription of what must be done but provide a route to meeting requirements.

Annex – Abstracts

GPG154	The intended aim of this Good Practice Guide is to assist users in the preparation of radioactive phantoms (body analogues), ensuring that the uncertainty on the activity dispensed to the phantom can be estimated and that the activity measurement is traceable to a national standard of radioactivity. Although the methods in this guide do not guarantee a specific accuracy for the measurement of activity in the phantom, in most cases, they will provide the smallest uncertainty routinely achievable with a given measurement device in an end-user measurement.
GPG114	This guide provides recommended procedures for examining, testing and calibrating tritium-in-air monitoring instruments for radiation protection. The procedures discussed in this guide involve the minimum level of testing recommended for instruments used in normal operating conditions.
GPG82	This Good Practice Guide has been written by the UK Airborne Radioactivity Monitoring Users' Group* in collaboration with the radiation user community. It describes recommended procedures for the examination, testing and calibration of air monitoring equipment.
IRMF MGPG14	This Measurement Good Practice Guide has been written by a Working Group of experts from the UK Ionising Radiation Metrology Forum. It describes recommended procedures for the examination, testing and calibration of portable radiation protection instruments. Test procedures recommended in this document are not legally binding: they are general methods based on current accepted good practice.
IRMF MGP29	This Measurement Good Practice Guide has been written by a working group of experts from the UK Ionising Radiation Metrology Forum, and replaces the first issue published in 2001. It describes recommended procedures for the examination, testing and calibration of installed radiation protection instruments. Test procedures recommended in this document are not legally binding: they are general methods based on current accepted good practice.
IRMF MGPG30	This Measurement Good Practice Guide (MGPG) has been written by a working party of experts from the UK Ionising Radiation Metrology Forum; it replaces the first and second issues published in 2002 and 2014 respectively. It describes procedures and methods for assessing radiation levels, outlines the thought processes needed to carry out the measurements and gives practical advice.
IRMF MGPG49	A brief summary of the principles of the treatment and expression of uncertainty is given. The evaluation of uncertainty in several key areas of radiological measurement is illustrated by examples showing the application of those

	principles to photon, neutron area survey monitoring and radioactive surface contamination monitoring.
IRMF MGPG113	A brief summary of the principles of the examination, testing and calibration of personal electronic dosimeters are detailed. The evaluation of monitoring processes and key steps for personal dose equivalent and dose rate monitoring is presented to enable compliance with current statutory legislation and to share best practice.
UKAS LAB 26	This publication provides guidance on the application of specific requirements for laboratories carrying out the calibration of radioactive sources in respect of activity, activity per unit mass, α, β, γ, X-ray or conversion electron emission rate, neutron emission rate or exposure/kerma rate.