Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK



Calibration performed at the above address only

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks
AIR KERMA RATE	 ¹³⁷Cs: 2.0 μGyh⁻¹ to 8.0 μGyh⁻¹ ¹³⁷Cs: 8.0 μGyh⁻¹ to 745 mGyh⁻¹ ⁶⁰Co: 10 μGyh⁻¹ to 23.4 mGyh⁻¹ ²⁴¹Am: 	12.8 % 2.8 % 4.3 %	Air Kerma and Ambient dose Equivalent rate fields generated in accordance with ISO 4037-1 Dosimetry and conversion coefficients conform to ISO 4037-2 and ISO 4037-3
	4 μGyh ⁻¹ to 736 μGyh ⁻¹	4.6 %	
AMBIENT DOSE EQUIVALENT RATE	¹³⁷ Cs: 2.4 μSvh ⁻¹ to 10.0 μSvh ⁻¹	12.8 %	Ambient Dose Equivalent and Personal Dose Equivalent rates do not include the uncertainty associated with the Sv/Gy conversion coefficients.
Calibration process is completed as per the guidance of GPG 14	¹³⁷ Cs: 10.0 μSvh ⁻¹ to 901 mSvh ⁻¹	2.8 %	
	⁶⁰ Co: 11.6 μSvh ⁻¹ to 27.1 mSvh ⁻¹	4.3 %	
	²⁴¹ Am: 6.9 μSvh ⁻¹ to 1.28 mSvh ⁻¹	4.6 %	
PERSONAL DOSE EQUIVALENT:			
PERFORMANCE OF DOSIMETRY SERVICES FOR EXTERNAL, WHOLE BODY GAMMA RADIATION;	¹³⁷ Cs:to HSE Protocols	Uncertainties for ¹³⁷ Cs Air Kerma: 2.8 %	
PERFORMANCE OF DOSIMETRY SERVICES FOR EXTREMITY/SKIN GAMMA RADIATION;	¹³⁷ Cs:to HSE Protocols	Uncertainties for ¹³⁷ Cs Air Kerma: 2.8 %	
PERFORMANCE OF ACCIDENT DOSIMETRY SERVICES - WHOLE BODY GAMMA RADIATION;	¹³⁷ Cs:to HSE Protocols	Uncertainties for ¹³⁷ Cs Air Kerma: 2.8 %	
ROUTINE IRRADIATION OF PERSONAL DOSEMETERS	¹³⁷ Cs:to HSE Protocols	Uncertainties for ¹³⁷ Cs Air Kerma: 2.8 %	
Calibration process is completed as per the guidance of GPG 113			



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AWE PLC -

Defence Radiation Protection Services (DRPS) Group

Accredited to ISO/IEC 17025:2017 **Issue No:** 028

Issue date: 29 October 2024

Calibration performed at main address only

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks	
SURFACE CONTAMINATION MONITOR RESPONSE:				
ALPHA (α) CONTAMINATION BETA (β) CONTAMINATION GAMMA (γ) AND X-RAY CONTAMINATION	Alpha-emitting nuclides: ²⁴¹ Am, ²³⁸ Pu, ²³⁸ U, ²³⁰ Th Beta-emitting nuclides: ⁹⁰ Sr/ ⁹⁰ Y, ¹⁴⁷ Pm, ³⁶ Cl, ¹⁴ C, ⁶⁰ Co, ¹³⁷ Cs, ⁶³ Ni	5.0 % to 15 % depending upon monitor type	Using wide area reference sources and point sources, the construction of which conforms to ISO 8769	
Calibration process is completed as per the guidance of GPG 14	Photon-emitting nuclides: ⁵⁵ Fe, ²³⁸ Pu, ¹²⁹ I, ²⁴¹ Am, ⁵⁷ Co, ¹³⁷ Cs, ⁶⁰ Co			
END				



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Appendix - Calibration and Measurement Capabilities

Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC). which expresses the lowest measurement uncertainty that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant nonrepeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The measurement uncertainty is calculated according to the procedures given in the GUM and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of k = 2. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published measurement uncertainty in certificates issued under its accreditation.

Expression of CMCs - symbols and units

It should be noted that the percentage symbol (%) represents the number 0.01. In cases where the measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand. Thus, for example, a measurement uncertainty of 1.5 % means $1.5 \times 0.01 \times q$, where q is the quantity value.

The notation Q[a, b] stands for the root-sum-square of the terms between brackets: Q[a, b] = $[a^2 + b^2]^{1/2}$