

# COGIRMI07

## Calibrate ionising radiation measurement instrumentation



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### Overview

This unit covers the competence required to calibrate ionising radiation measurement instrumentation safely and effectively.

This unit deals with the following:

- 1 Calibrate ionising radiation measurement instrumentation

During this work you must take account of the relevant operational requirements and safe working practices AS THEY APPLY TO YOU.

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### Performance criteria

- You must be able to:*
- P1 work safely at all times, complying with health and safety and other relevant regulations, legislation and guidelines
  - P2 prepare for the calibration in accordance with the procedure
  - P3 take measurements in accordance with the procedure
  - P4 maintain the integrity of calibration equipment and materials
  - P5 identify whether the results are within the specified range
  - P6 make adjustments to instruments in accordance with the procedure
  - P7 inform the relevant people of calibration problems, anomalies and/or where results are not within specified range
  - P8 report non-conforming equipment in accordance with organisational procedures
  - P9 adhere to the relevant quality standards
  - P10 maintain accurate records in accordance with organisational procedures

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### Knowledge and understanding

*You need to know and understand:*

- K1 the health, safety and environmental and other statutory legislation, regulations and safe working practices and procedures governing ionising radiation and their implications for your area of work
- K2 the nature, characteristics, hazards and risks of ionising radiation and the technology in the instrumentation used to take measurements
- K3 the functioning of the instrument and its components
- K4 types of equipment relevant to the task and their application, capabilities and limitations
- K5 environmental controls (e.g. temperature, humidity)
- K6 the requirements for calibration documentation including certification, labelling and records
- K7 the purpose of the measurements taken
- K8 the units of measurement to be used and their relevance to the performance specification
- K9 the relevance of the measurement to the performance specification
- K10 how to derive and interpret instrument responses

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### Additional Information

#### Scope/range

- 1 resources: equipment; consumables; services
- 2 parameters: within expected range of readings; outside the expected range of readings; adjustments; problems, anomalies and non-conformances

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**Status** Original

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**Originating organisation** Cogent

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**Relevant occupations** Professional Occupations; Engineering Professionals; Engineering and manufacturing technologies; Engineering

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**Suite** Ionising Radiation Measurement Instrumentation

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**Key words** calibrate, ionising, radiation, instrumentation, safely, effectively