Ionising Radiation Instrumentation Specialist

(IRIS)

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Why

- Personal development
- Recognised certificate
- Ionising radiation monitoring equipment is becoming more sophisticated
- Skills shortage

Development

- Based on the RPA 2000 structure

- General Awareness
- Basic Understanding
- Detailed Understanding
- Practical Competence

- Trialled on 6 members of the Ionising Radiation Metrology Forum

Competencies

- General Awareness
  - International guidance requirements
  - Transport of radioactive materials
  - Quality control/auditing
- Basic Understanding
  - Basic atomic and nuclear physics
  - Interaction of radiation with matter
  - Practical radiation fields
  - Signal processing and display
  - Power supplies
  - Record keeping(certificates, sources etc.)

Areas requiring Detailed Understanding

- Quantities and Units
- Statutory requirements
- UK Guidance
- Principles of operation of various detector types
- Calibration facility requirements and traceability to National standards
- Typical instrument problems and scope of test after repair
- Detection and measurement methods

Areas requiring Practical Competence

- Instrument set-up
  - Energy thresholds (optimisation for particular nuclides)
  - HT
  - Dead time
  - Overload current
  - Averaging times
  - Alarms

Areas requiring Practical Competence

- Advising the employer and the RPA
  - Appropriate instrument selection
  - Clear account of why instruments have failed
  - Implications of the failure if the instrument had been used
  - Explanation of varying indications from different types of instruments

What next?

Formally accepted by RPA 2000 Board in March 2011

Application available through RPA 2000 website now

http://www.**rpa2000**.org.uk/

Benefits seen at the HPA

- Structured training consistent across HPA
- Training modules developed for each of the competancies
- Defined sub-set of competencies for QP
- Recognised need to ensure that more junior members of staff are trained when less common monitoring scenarios or instrument set up are encountered