

Ionising Radiation Instrumentation Specialist (IRIS)



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Why



- Skills shortage
- Personal development
- Recognised certificate
- Comparable with RPA's
- Most IRMF members in favour

Similar structure to RPA 2000



GA - General Awareness

BU - Basic Understanding

DU - Detailed Understanding

PC - Practical Competance

Areas requiring DU



- Detection and Measurement, Monitoring methods
 - Uncertainties
 - Limits of detection
 - Averaging techniques
 - Response times
 - Statistical fluctuations

Areas requiring DU



- Quantities and Units
- Statutory requirements
- UK Guidance
- Principles of operation of various detector types
- Role of the IRIS and role of the QP
- Traceability to National standards
- Assessment of uncertainties in reference values
- Scope of test after repair

Areas requiring DU



- Instrument set-up
 - Energy thresholds
 - HT
 - Dead time
 - Overload current
 - Averaging times
 - Alarms

Areas requiring DU



- 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

Areas requiring PC

1) Monitoring methods



A practical understanding of:

- The limitations associated with different instruments; and
- The associated monitoring techniques that can be utilised in order to mitigate for any less desirable instrument characteristics

Areas requiring PC

2) Typical instrument problems



- Identify common modes of failure; and
- Describe the effect that the failure has on the use of the instrument

Areas requiring PC

3) Calibration facilities



- Traceability
- Levels of uncertainty associated with the establishment of the calibration reference field;
- How this relates to the final instrument response figure derived.
- Essential attributes of at least one type of calibration facility

Areas requiring PC

4) Setting up instruments



- Understanding the principles of setting up a range of instrument types.

Areas requiring PC

5) Advising the employer and the RPA



- Advice on appropriate instrument selection
- Advice on implications of instrument failure or inappropriate selection

What next?



Prepare three portfolios for trial assessment

Formal approach to RPA 2000 Board

Application available through RPA 2000 website