

RPS courses



Radiation Protection Supervisors

Programme for users of

sealed sources and x-rays



Radman Associates

Specialists in radiological protection

RPS COURSES

- Short Courses at regional centres
- Special advisory courses of 1 or 2 days are held at company premises by arrangement and with programmes designed to particular requirements.

Full particulars may be obtained from:

Courses Administrator

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Web: www.radman.co.uk/rps-training-courses



Radiation Protection Supervisors

Under the Ionising Radiations Regulations 2017 reg 18(5) the employer must appoint one or more suitable Radiation Protection Supervisors for the purpose of securing regulatory compliance in any area made subject to Local Rules.

In order to assist the employer in achieving optimal radiation safety in the workplace the RPS must be sufficiently trained in the basic principles of radiation protection and the legislative controls for restricting exposures.

The course content enables delegates to become conversant with the properties of the radiations and their respective hazards, and with modern methods of managing radiation protection on site. The course programmes are planned to give a thorough familiarity with the requirements of the Regulations. Recent enforcement action or recommendations made by the regulators are particularly highlighted and emphasis is given to the practical methods of protection with demonstrations and syndicate exercises to encourage delegate participation.

Whilst principally aimed at RPSs, therefore, these courses are suitable for all staff who have responsibility for, or duties concerned with sources of ionising radiation.

Two separate programmes are conducted throughout the year for uses of:

- **Sealed Sources and X-Rays:** for those using radioactive sources or X-rays in industrial process controls or research applications, with emphasis on external radiation exposures.
- **Laboratory Radiochemicals:** for those using unsealed radioactive materials in tracer quantities, with emphasis on contamination control.

An important feature of the course is their introduction, where members declare the particular radiation sources they are concerned with. The tutors then ensure to include the radiological characteristics and control measures relevant to those sources and opportunity is given for individual discussion.

On successful completion of the Course Questionnaire delegates receive an e-copy of their RPS training certificate as evidence for the Radiation Safety File.



Radiation Protection Supervisors (Sealed Sources & X-Rays)

Course Programme

Day 1

- 13:00 - 13:15 **Introduction to the Course**
Course members describe their use of radiation sources.
- 13:15 - 14:15 **Ionising Radiations**
Radioisotopes; types of radiation; properties of the radiations; radioactive decay; units of activity; half-life; energies; sealed and unsealed sources; radiation and contamination; sources in gauging equipment; X-rays.
- 14:15 - 15:00 **Radiation Dose**
Dose quantities and units; background exposures; benchmarks of dose; exposure levels from industrial equipment.
- Break*
- 15:20 - 16:30 **Legislative Control**
The Environmental Permitting Regulations 2016; the Ionising Radiations Regulations 2017 and ACoP; transport legislation; the enforcing authorities (EA, HSE, ONR).
- 16:30 - 17:30 **Control of Exposures**
Early and late radiation effects; risks of low level radiation; evidence for health effects; dose limits and ALARP; regulatory requirements; most reasonably foreseeable accidents; scope of assessment; contingency plans for accident and loss.
- 17.30 - 18.15 **Evening Syndicate Work**
Syndicates are given details of typical accidents for considering emergency actions as Radiation Protection Supervisors and recommending future changes to operational procedures.

Dinner

End of day 1



Radiation Protection Supervisors (Sealed Sources & X-Rays)

Course Programme

Day 2

08:45 - 09:00

Day 1 Review

09:00 - 09:45

Radiation Monitoring

Selection of appropriate instruments for radiation surveys or contamination checks; monitoring protocols; calibrations; recording and interpretation of readings; personal dosimetry.

09:45 - 10:40

Monitoring Exercise

Delegates monitor a selection of items to determine their activity.

Break

11:00 - 11:30

Principles of Protection

Justification; optimisation; time, distance and shielding; the inverse square law; relationship between source activity and dose rate; X-rays in research and adventitious X-rays.

11:30 - 12:00

Syndicate Calculations

Delegates to estimate the potential doses received during the syndicate exercises.

12:00 - 12:30

Risk Assessment

Radiation risk assessment by reference to ACoP paras 70 & 71.

Lunch

13:15 - 14:15

Management of Radiation Work

Classified workers; designation of Controlled and Supervised Areas; operational requirements; enclosures; safety features and warning devices for X-ray inspection; sealed source leakage testing; RPS duties; Local Rules.

14:15 - 15:00

Syndicate Reports

Short presentations made by each syndicate group outlining their actions.

15:00 - 16:00

Course Questionnaire

A number of questions for answer using the course notes as a demonstration of RPS competence.

Close of course

