



## Radiation protection supervisors

### Ionising Radiation Protection Series No 6

#### Introduction

This HSE information sheet is aimed at radiation employers, radiation protection advisers (RPA), radiation protection supervisors (RPS), safety representatives and workers. It gives advice on the level of knowledge and management responsibility that would make a person suitable for appointment as an RPS under regulation 17(4) of the Ionising Radiations Regulations 1999 (IRR99)<sup>1</sup> and builds on the guidance in the Approved Code of Practice<sup>2</sup> (L121, paragraphs 289-295).

#### Role of RPS

The RPS has a crucial role to play in helping to ensure compliance with the arrangements made by the radiation employer under IRR99 and, in particular, supervising the arrangements set out in local rules. The legal responsibility for supervision, however, remains with the radiation employer.

The RPS will generally be an employee of the radiation employer, although this is not a legal requirement. They will usually be in a line management position, closely involved with the work being done, to allow them to exercise sufficient supervisory authority. In some situations, for example where a contractor is undertaking work on the site of another employer, it may be appropriate to appoint one of that site employer's employees as the RPS. Such an appointment might be appropriate where the site employer is a radiation employer and the contractor rarely undertakes work with ionising radiation and may need to be confirmed by suitable contractual arrangements.

It may not always be necessary for an RPS to be present all the time. In deciding how many RPSs are required, the radiation employer will need to take account of the range and complexity of the work that is subject to local rules and the number of different locations to be covered (see L121, paragraph 293).

In some large establishments the RPS may not be the immediate line manager or supervisor overseeing the work with ionising radiation. In these cases a system should operate, which may involve more than one person, to ensure that adequate supervision is maintained. In all cases the radiation employer should provide sufficient resources and managerial support to allow the RPS to operate effectively. It is good practice, though not a legal requirement, to confirm the appointment in writing and to provide sufficient information about the individual's role. Radiation employers may find it helpful to involve their RPAs in the selection, appointment and training of RPSs.

#### Training for RPS

The radiation employer has a specific duty to provide appropriate training for all employees working with ionising radiation (see regulation 14). For RPSs, the purpose of such training is to ensure that they know enough about radiation protection principles and procedures, the requirements of the Regulations and the arrangements in local rules to enable them to supervise the work safely and maintain the precautions that will restrict exposure.

The length of the training, including refresher training, depends upon the experience of the RPS and the complexity of the work being undertaken. At one extreme, as little as a few hours of specific training, eg from the RPA, may be sufficient. In other circumstances (if the nature of the employer's business is complex and the RPS has not already completed any form of radiation protection training) a longer course of perhaps a few days' duration may be necessary. However, it may be economical to provide a thorough training course for a group of RPSs, only parts of which would be of direct relevance to the individuals. Some situations may require a wider background knowledge of radiation protection than the minimum suggested here. It is for the radiation employer to decide, in the light also of advice from their RPA, how much training is needed in individual cases and how to provide it.

#### Minimum level of competence for RPS

Employers should satisfy themselves that the people they appoint to act as RPSs:

- have received appropriate information and instruction as required under regulation 14;
- know and understand the requirements of the Regulations and Approved Code of Practice (L121), local rules and contingency plans relevant to the work with ionising radiation;
- possess sufficient authority to allow them to supervise all the radiation protection aspects of the work in areas subject to local rules;
- know what to do in an emergency; and
- know where to seek more information or advice.

#### Training modules

The modules that follow comprise a basic level of knowledge or expertise (core of competence) for an RPS. The degree of detail that each module should provide will depend on the range of tasks to be supervised and the individual's previous level of relevant knowledge. There is no significance to the order of the presentation of the modules.

## Core of competence for RPS modules

NB: For completeness, the core of competence suggested here may include information that all radiation workers should receive.

1 The nature of ionising radiation and its interaction with tissue - confined to those types of ionising radiation which may be encountered, but including:

- the nature of any harmful effects;
- the principle of restricting exposure to ionising radiation so far as reasonably practicable; and
- the concepts of internal and external radiation exposure.

2 The quantities used for:

- measuring ionising radiation, including the units of measurement;
- activity of radioactive substances; and
- contamination;

as appropriate to the circumstances.

NB A detailed understanding of all dose quantities may not be needed, provided there is an understanding of what is meant by the general term 'dose of ionising radiation'.

3 Relevant measurement techniques (ie those that will be met in the course of normal work), for example:

- film badge;
- thermo-luminescent dosimeter (TLD);
- electronic dosimeter;
- other personal dosimeter;
- bioassay;
- air sampling; and
- workplace portable monitors for radiation and contamination.

4 Basic legal requirements:

- the Ionising Radiations Regulations 1999 (IRR99) and Approved Code of Practice (L121);
- local rules, their purpose and how to use them to secure compliance with the Regulations;
- risk assessments;
- provisions specific to women and young people;
- designation of people and areas; and
- appreciation of relevant general health and safety legislation, such as the Management of Health and Safety at Work Regulations 1999.

5 The basic principles of practical radiation protection:

- time;
- distance;
- shielding;
- containment; and
- good housekeeping;

and how those principles are carried through in the particular work situation.

- 6 In-house knowledge, as appropriate:
- the radiation employer's safety policy and organisation;
  - the specific functions the RPS would be expected to undertake;
  - relevant dose limits;
  - operational levels set by the employer for the particular workplace;
  - content of the local rules established by the radiation employer;
  - contingency plans; and
  - where help and advice can be obtained.

7 Practical procedures to be followed in the event of an accident, incident, emergency or other unwanted occurrence, including procedures for reporting adverse incidents.

### Relevant reading

1 *Ionising Radiations Regulations 1999* SI 1999/3232 Stationery Office 2000 ISBN 0 11 085614 7

2 *Work with ionising radiation. Ionising Radiations Regulations 1999. Approved Code of Practice and guidance* L121 HSE Books ISBN 0 7176 1746 7

While every effort has been made to ensure the accuracy of the references listed in this publication, their future availability cannot be guaranteed.

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This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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