RP CoP001: Radiation Protection Supervisors

Introduction

This Code of Practice (CoP) concerns University staff or postgraduate students who are, or are about to be, appointed as Radiation Protection Supervisor (RPS) for their School or area/group/institute.

The CoP outlines the University's arrangements concerning the role of the RPS appointed under the Ionising Radiations Regulations 2017 (IRR17). The purpose of the RPS appointment is to ensure that the requirements laid out in IRR17, in respect of work with ionising radiation in areas subject to Local Rules, are complied with. In most cases, the RPS duties extend beyond the requirements under IRR17 and form a broader role at the University; in particular, where work with unsealed radioactive material is carried out, duties will include monitoring compliance with the limits and conditions of the Environmental Authorisations (Scotland) Regulations 2018 (EASR) Permits, issued by the Scottish Environment Protection Agency (SEPA).

The appointment is generally made, in writing, by the Head of School or other senior role. An example RPS appointment letter is provided in Appendix 2.

As the CoP outlines many of the duties expected to be performed by the RPS it will also be useful to those appointed, or about to be appointed, as Assistant or Deputy RPSs as the Assistant/Deputy RPS may be delegated some or all of the RPS duties depending on the degree and complexity of the work undertaken in their area.

Role of the RPS

The RPS has a crucial role to play in the management of Radiation Protection at the University and helps to ensure that communication and advice given by the Radiation Protection Unit (RPU) is cascaded down to the users. A key requirement of the RPS role is also to supervise arrangements set out in Local Rules.

The legal responsibility for supervision remains with the University (i.e. employer) and cannot be delegated to an individual. RPSs carrying out activities for the benefit of the University are deemed to be 'in the course of employment' and vicarious liability applies (i.e. an employer can be liable for the acts or omissions of its employees if they took place during the course of employment and the employee was acting reasonably).

The 'Supervisor' part of the RPS role is to supervise the arrangements set out in Local Rules; i.e. it applies to 'radiation safety' arrangements. The RPS role is **NOT** about being a Supervisor or being responsible for radiation workers general safety; this falls upon the radiation workers' Line Manager or Safety Adviser respectively.

Suitability for appointment as an RPS

A person's suitability for appointment as an RPS depends on both their knowledge and understanding of key areas of the Regulations (EASR & IRR17) and also the Local Rules. They should also have an ability to exercise sufficient supervisory authority over the work in their area. The minimum qualities than an RPS should possess are that they:

- Must have attended Basic Training in Radiation Protection; either at the University of Edinburgh or elsewhere,
- Preferably have had experience with relevant radiations to which their appointment relates.

The Health and Safety Executive (HSE) also have an Information Sheet on RPSs giving advice on the level of knowledge and management responsibility that they believe would make a person suitable for appointment as an RPS under IRR17. A copy of this information sheet can be found here: HSE Information Sheet for RPSs.

The HSE recommend that employers satisfy themselves that those appointed to the role of RPS:

- Know and understand the requirements of the IRR17, Local Rules and contingency plans relevant to the work with ionising radiation that they supervise;
- Be able to command sufficient authority from the people doing the work to allow them to supervise the radiation protection aspects of that work;
- Understand the necessary precautions to be taken in the work being carried out in their area(s) and the extent to which these precautions will restrict exposures;
- Know where to seek more information; and
- Know what to do in an emergency.

Training

The University has a duty to provide Information, Instruction and Training to all its employees who work with ionising radiation.

Basic training in radiation protection is given to all workers through the Basic Course in Radiation Protection in Teaching and Research or the Basic Course in Radiation Protection in Veterinary Diagnostic Imaging and Therapy. However, additional training is required to be given in situations where employers arrange for employees to perform particular functions required under IRR17, for example, to act as an RPS.

Although the RPU have investigated writing an internal RPS Training Course, training via a certified external provider will give the RPS a more rounded view of Radiation Protection and the responsibilities associated with being an RPS. It is therefore

recommended that RPSs, and deputy/assistant RPSs, attend an external training course suitable for their intended area (e.g. unsealed sources, sealed sources, x-rays only or a combination of these applications).

There are several external course providers who have RPS Training courses available. These can be found on the RPS training area of the RPU website.

Duties of the RPS

The duties of the RPS will vary slightly across the University depending on how local radiation working arrangements are managed, the degree of complexity of the radiation work carried out there and what radiation applications there are present.

The area covered by each RPS will be agreed prior to appointment and should be detailed in the RPS appointment letter.

The duties listed in Appendix 1 are intended as a guide as to the duties normally expected of the RPS role at the University of Edinburgh but other additional duties may be taken on by the RPS if required and, similarly, some of the duties listed may be carried out by those not in the RPS or Assistant/Deputy RPS role depending on the local arrangements within the school.

Appointment in writing

The RPS must be formally appointed in writing; normally by the Head of School or department. This appointment is only made following a recommendation to the role by the University RPA. An appointment letter template is shown in Appendix 2.

The template, RP F005, can be found on the forms area of the RPU website. This can be downloaded and transferred over to headed paper.

Appendix 1: General Duties of the Radiation Protection Supervisor

Duty	What this duty might include
To coordinate the arrangements for Designated Areas as they apply to work within their area	• Determining the type of area designation required for the work in their area using the step-by-step guide in RP CoP011. • Checking that adequate signage is in place at the boundary to the designated area. • Checking that any area where work with ionising radiation is carried out is appropriately demarcated and signed. • Checking that appropriate monitoring is being carried out in their designated areas and that monitoring records are up-to-date.
To draw up, in consultation with the RPU, appropriate Local Rules & Written Arrangements and to maintain them.	• Being able to create area-specific Local Rules that apply to the relevant radiation application, in the relevant location and to the relevant staff. • Ensuring staff/users affected by the Local Rules are adequately informed of their content. Merely sending a copy of them is not sufficient to ensure they are adequately informed of their content. A sign-off sheet at the back of the Local Rules is a good way to demonstrate this. • Ensuring the Local Rules are kept up to date (e.g. contact details/information). • Ensuring the Local Rules contain appropriate written arrangements for non-classified persons entering Controlled Areas such that they aim to restrict their exposure to ionising radiation.
To make sure that contingency plans exist for their area and that they know what to do in the event of an accident or incident involving radiation or radioactive material	• Consider the work with ionising radiation in the area and the most likely accident(s) or incident(s) that could occur. • Ensure local rules contain a summary of any RPU model contingency plans. • Where appropriate, organise the rehearsal of contingency plans.

Duty	What this duty might include
Radiation User Registration (RADUSER) Forms	• Assisting users in the completion of the RADUSER form. • Checking that the worker has had adequate training and local instruction/induction. • Checking that the proposed work can be done without exceeding the limits of the Permit and ensuring that the RPU is aware of the work.
To act as the day-to-day contact with the University RPU	• Contact details for the RPU can be found on the 'About Us' area of the RPU website. • To attend RPS meetings/get-togethers as organised by the RPU.

To disseminate advice and information from the RPU to users	• From time to time the RPU sends RPSs information that may need to be passed on to users of radioactive material such as:
	  ○ Newly issued Codes of Practice or Guidance Notes;
	  ○ Circulars containing important information;
	  ○ Training certificates;
	  ○ Dates of planned safety inspections (e.g. SEPA, HSE or RPU audits).

To advise new radiation workers about local radiation safety arrangements (e.g. provide local inductions).	• Ensuring that radiation workers, both new and old, know the local radiation safety arrangements for their area. This might include things such as:
	  ○ Where to find the Local Rules and a walk-through of their content;
	  ○ How to operate the LS scintillation counter or contamination instrumentation;
	  ○ How to monitor for contamination using the correct instrument;
	  ○ Where/how to record such monitoring;
	  ○ Where to get new radioactive bins and how to label/fill/close them;
	  ○ Arrangements for ordering radioactive material;
	  ○ How to record the usage of radioactive substances on RETAIN.

Duty	What this duty might include

To maintain a list of radiation rooms and sources of radiation	• A list of rooms where unsealed radioactive material is used should be kept by the RPS; this list should include at least the building, room number, isotope, area designation and status (e.g. in use or decommissioned in YYYY etc.).
	• A list of sources of ionising radiation within the RPS's area should be kept. This list would include obvious sources of ionising radiation but RPSs should think about and be aware of not-so-obvious sources entering the department such as:
	  ○ Gas Chromatographs containing Electron Capture Detectors (ECDs);
	  ○ Electron Microscopes;
	  ○ X-ray imaging systems;
	  ○ In-vivo/ex-vivo micro CT systems;
	  ○ Faxitron cabinets;
	  ○ X-ray fluorescence analysers (XRFs);
	  ○ Liquid Scintillation counters – most contain internal standards;
	  ○ External liquid scintillation counting standards.
	• Keep aware of any changes in applications of ionising radiation.
	• Consult with the RPU on any changes to radiation monitors.

To monitor non-compliances, both with EASR and IRR17, and near misses.	• *Monitor* compliance with the University's radiation safety arrangements and bring any discrepancies to the Principal Investigator (PI) or Line Manager and RPU. Note that this relates to 'radiation safety' arrangements; the RPS is not responsible for the general safety of the workers in their area (that falls upon the radiation workers' Line Manager). • RPSs can only *advise* radiation workers on what is expected of them by the policies and Codes of Practice/Guidance Notes issued by the University RPU. • Reporting of accidents and near misses to the RPU and School Safety Advisor.

Duty	What this duty might include
To make arrangements for the personal dose monitoring of radiation workers.	• The need for personal dose monitoring (e.g. TLDs) is identified in the risk assessment and summarised in the RADUSER form. • RPSs should administer, or oversee the administration of, the dosemeter issue and return from users and notify any changes in circumstances to the approved dosimetry service. • Report elevated or unusual results from the dose reports to the RPU including results that are above the locally set Dose Investigation Levels (DILs). • Informing users of their dose results. • Ensuring additional requirements for Classified Persons in their area are met; this will likely involve discussion with the RPU and Occupational Health Service. • To assist Classified Persons in the preparation of the information they are required to send to the Appointed Doctor/Occupational Health Service ahead of a Classified Person medical.
To coordinate the arrangements for the provision of the University's basic training in radiation protection to relevant radiation workers.	• Ensuring radiation workers know where to find information about the RPU training courses and what courses they should sit based on their radiation application. • Checking RP training being claimed from other establishments is genuine & fit-for-purpose. • Checking marks from users sitting the competence assessments.
To monitor/supervise the accounting of radioactive substances in their area.	• Instruct users on how to account for their radioactive substances usage on RETAIN. • RPSs may be asked to supply the unique identifier or give advice on a numbering system for unique monitoring of the radioactive stock material in their areas. • Checking that radioactive substances are being stored in suitable containers/fridges and are being kept in a secure manner. • Monitor/supervise the data held in RETAIN for their area and ensure, so far as reasonably practicable, that it is correct & up to date to allow the RPU to prepare monthly summaries. • To ensure any monthly summaries of radioactive substances usage not on RETAIN are kept up to date to allow the RPU to prepare end of year summaries for the SEPA.

Duty	What this duty might include
To give local instruction to users on the choice of monitoring instrument for their intended work and advice on area and personal contamination monitoring technique.	• Ensuring that there are sufficient monitoring instruments, of the right type, for the work being carried out in their area and that any instruments used are within test date. • Knowing what instrument to choose for what purpose and the limitations of each. • Communicating the importance of adequate personal contamination monitoring to users and the requirements to record such monitoring.
To prepare solid and organic liquid waste for collection by the RPU and the University's radioactive waste contractor.	• Checking that waste fraction determinations exist for work being carried out in their area. Note, it is normally up to the individual researchers/users to determine the waste fraction disposed to each route, although the RPU/RPS helps in some cases. • Where practicable, setting up a robust 'decay storage' system to decay waste containing certain short-lived radioisotopes prior to disposal to minimise the activity of waste. • Checking what waste routes are available to them and the limits or conditions applied to those routes. • Appropriate monitoring (dose rate and contamination) of the waste bins prior to collection by the RPU. • Ensuring the waste bins are appropriately labelled for transport. • Ensuring adequate arrangements are made with the RPU to uplift the waste bins from their area on the planned day of collection. • Liaising with the Waste and Recycling Department or RPU regarding the invoicing or recharging of radioactive waste. • Ensuring bins marked for waste disposal are given a unique identifier. • Seeking further information on radioactive waste disposal from RP CoP009 "*Disposal of Radioactive Waste*" or from the RPU.

Duty	What this duty might include
To ensure any records required to be kept are done so for the specified time period.	• Keeping any IRR17/EASR related records for at least 5 years. Examples of records that should be kept include: ○ RADUSER forms ○ Usage and Disposal sheets (e.g. non-RETAIN usage) ○ Closed Source record forms ○ SEPA inspection reports ○ Instrument Test certificates ○ Leak Test certificates ○ Waste Fraction determinations/assessments ○ Monthly Returns ○ Personal contamination monitoring records ○ Area contamination monitoring records ○ Confirmation of Incineration records relating to Solid & Organic Liquid waste
To coordinate the arrangements for the annual periodic testing of the radiation monitoring instrumentation.	• To contact the RPU when instrument testing for the instruments in their area/building is required to arrange a mutually agreeable date to test (NB: It is not the job of the RPU to remind Schools/Colleges when instrument tests are due). • Administering the collection of RP instruments and sending on to the RPU lab for testing at the RPU offices. In a limited number of cases, the RPU may need to come to site to test. • To remove from service any instruments that appear to be functioning incorrectly pending testing by the RPU. • To file and/or disseminate instrument test certificates as appropriate.
To coordinate the arrangements for the statutory Leak Testing of sealed/closed sources.	• To contact the RPU when leak testing for sealed/closed sources in their area are required to arrange a mutually agreeable date to visit (NB: It is not the job of the RPU to remind Schools/Colleges when leak tests are due).

Duty	What this duty might include
	• Irradiators are sealed sources and leak tests records are likely to be carried out as part of an annual or planned maintenance visit. • RPSs should keep a local copy of these leak test records.

To prepare for and accompany the University RPA and Scottish Environment Protection Agency (SEPA) inspector during inspections.	• In general, SEPA inspections are planned ahead and inspections are on EASR matters and not general safety or ionising radiation safety.
	• Common things inspected might include, but are not limited to:
	  ○ Written procedures showing how compliance with the certificate(s) is maintained;
	  ○ Instrument test certificates;
	  ○ Personal and area contamination monitoring records;
	  ○ Radioactive substances accountancy (e.g. a cross-check of what is physically present in fridges/freezers versus what is shown on RETAIN for area);
	  ○ Cross check of radioactive waste bin contents with electronic RETAIN records.

To coordinate the arrangements for decommissioning areas where work with ionising radiation has been carried out.	• To liaise with the RPU and decide on the level of decommissioning required for the area. The decision should consider the following:
	  ○ If work with ionising radiation is to cease and the area is to be re-used, e.g. as an office, decommissioning and a visit from the RPU is likely required,
	  ○ A lab group moving out may require the lab to be decommissioned locally, e.g. monitoring, removal of signage/material, but there is unlikely to be a need for a visit from the RPU if the lab could potentially be used as a radioactive lab at some point in the future.
	• Users are responsible for decommissioning their own areas, not the RPS or Assistant RPS, but it is likely the RPS may be asked to assist.
	• Checklist in RP CoP002 details the records required to be kept and for how long.

Appendix 2: RPS Letter of Appointment

For a downloadable version of this pro forma, please see form RP F005 on the forms area of the RPU website.

Date:	DD MM YYYY

Appointment as a Radiation Protection Supervisor (RPS)

Dear RPS NAME,

This letter is to formally confirm your appointment as a Radiation Protection Supervisor for the areas listed below at the University of Edinburgh in accordance with the Ionising Radiations Regulations 2017 (IRR17).

Area(s) covered by appointment:
• List building/School/floor as appropriate

And for the following radiation sources:

• Insert radiation application / source (e.g. irradiator, sealed sources, unsealed sources, etc.
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•

Your general responsibilities are to ensure that all persons working with ionising radiation observe the Local Rules and that they comply with the IRR17 and any other relevant advice as given by the Radiation Protection Unit.

A list of the duties that are involved can be found in Radiation Protection RP CoP001 – *Radiation Protection Supervisors* on the Radiation Protection Unit's website.

A copy of this letter should be sent to the University Radiation Protection Adviser who assist with RPS training if it has not already been completed. It is recommended that RPSs undergo refresher training in RPS matters at least once every five years.

Finally, I am grateful to you for agreeing to accept this responsibility.

Yours sincerely,

NAME:	
SIGNATURE:	
POSITION:	

Document version

Version number	Summary of change	Date and by whom
3.0	Updated to new format. Added in new line to Appendix 1 to cover RPS duties for Classified Persons.	21/02/2023 Mark Green
3.1	Minor formatting amendments	26/09/2024 JC

If you require this document in an alternative format please contact The Health and Safety Department on health.safety@ed.ac.uk or call (0131) 651 4255.