

University of Sussex

Radiation (Ionising) Safety Policy

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US
University of Sussex

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1. Introduction

The University of Sussex uses a variety of sources of ionising radiation within its teaching and research activities. This policy details the management arrangements and responsibilities for radiation safety at the University.

2. Policy

The University will comply with all relevant legislation regarding ionising radiation and in particular the Ionising Radiations Regulations 2017 (IRR2017) the Environmental Permitting (England and Wales) Regulations 2010 (EPR16), and The Environmental Permitting (England and Wales) (Amendment) Regulations 2011 (EPR11). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 as amended.

3. Policy Objectives

The objectives of this policy are:

- To reduce to as low as reasonably practicable, the extent to which staff, students and other persons are exposed to ionising radiation.
- To reduce the impact of radioactive substances used at the University on the environment and members of the public to as low as reasonably practicable using Best Available Techniques (BAT).

4. Application

This policy applies to all work undertaken on University of Sussex premises and/or by personnel under its control, which may lead to the exposure of ionizing radiation.

5. Organisational Responsibilities

Vice-Chancellor

The Vice Chancellor is responsible for:

- implementation of the University's Health and Safety Policy and as the most senior manager of the University is identified as the Radiation Employer under IRR17 and the Site Operator under EPR16 and is therefore responsible for ensuring overall compliance with IRR17 and EPR16.

University Council

The University Council is responsible for:

- ensuring that overall management arrangements will meet the requirements of IRR17, EPR16 and EPR11.

Director of Estate Services

The Director of Estate Services is responsible for:

- the provision of the University Radiation Protection Service (URPS)

Director of Planning, Governance and Compliance

To ensure that health, safety and environment matters are managed within the governance and compliance framework of the University.

University Radiation Protection Service/University Radiation Protection Officer

The University Radiation Protection Service (URPS) is provided as a joint collaboration between the University and Sussex Estates and Facilities LLP (SEF), through the service level agreement and the University Health and Safety Compliance Director (UHSD) on behalf of the Director of Estate Services. The SEF Quality Safety Health and Environment (QSHE) Compliance Manager and the University Health and Safety and Compliance Director will fulfil the functions of the Radiation Protection Officer (RPO).

The RPO shall:

- Liaise with the Health and Safety Executive and Environment Agency on all matters relating to IRR17 and EPR16. This will include communications relating to notifications, authorisations, permitting, and statutory reporting.
- Liaise with the appointed Radiation Protection Adviser and Radiation Waste Adviser (RPA/RWA) with regards to compliance with IRR17
- and EPR16.
- Manage the training and licensing of all users of ionising radiation.
- Liaise with the University appointed Radiation Protection Supervisors to ensure that local operating procedures are developed to fulfil the requirements of the University Radiation Protection Management System.

- Perform regular inspections of radiation facilities and report deficiencies to the relevant school and the Radiation Protection Sub Committee.
- Advise the University on emergency response and business continuity, and undertake emergency test exercises.
- Maintain all necessary records for statutory compliance.
- authorise purchases of radioactive substances in liaison with the UHSD

Heads of School are responsible for:

- the implementation of this policy in their School,
- the provision of adequate resources to achieve compliance with this policy,
- the provision of appropriate facilities and equipment for safe working with ionising radiation,
- ensuring compliance with the Regulations set out in IRR17 and the University's Permits under EPR16,
- appointing suitable and sufficient Radiation Protection Supervisors (in writing).

Where facilities are shared, responsibility for radiation safety will be with the Manager of the facility. Staff or students working on premises managed by other employers will be subject to the local rules and radiation safety measures in force for that facility.

Heads of Department are responsible for:

- the use of ionising radiation within their department,
- ensuring that radiation workers adhere to local rules and the conditions of the University's Permits held under EPR16.

Radiation Protection Supervisors are responsible for:

- ensuring that all new purchases are made in accordance with the University Radiation Compliance Guidance Document.
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- ensuring that arrangements are in place to notify the Head of School/Unit and the RPO prior to the arrival on site of any radioactive materials, brought in by new members of staff as gifts or from other institutions
- the maintenance of local records required by EPR2010

- attending Radiation Protection Sub- Committee
- overseeing the accumulation and transfer of solid and organic liquid waste to the radioactive waste decay store and the disposal of aqueous waste.
- Assisting the School in ensuring the local rules are adhered to.
- Ensuring an emergency response plan is in place

Principal Investigators are responsible for:

- ensuring that personnel who are involved in the use of ionising radiation receive adequate supervision, information, instruction and training,
- ensuring that all sources of ionising radiation are adequately controlled and accounted for,
- undertaking prior risk assessments for all projects involving the use of ionising radiation and ensuring the risk assessments are kept up to date,
- the completion and maintenance of appropriate contamination monitoring, stock, use and disposal records, (in association with the RPS).
- In association with the RPS to ensure that users are keeping required records of materials and also those required for the accumulation and disposal of radioactive waste

Sussex Estates and Facilities LLP (SEF) are responsible for:

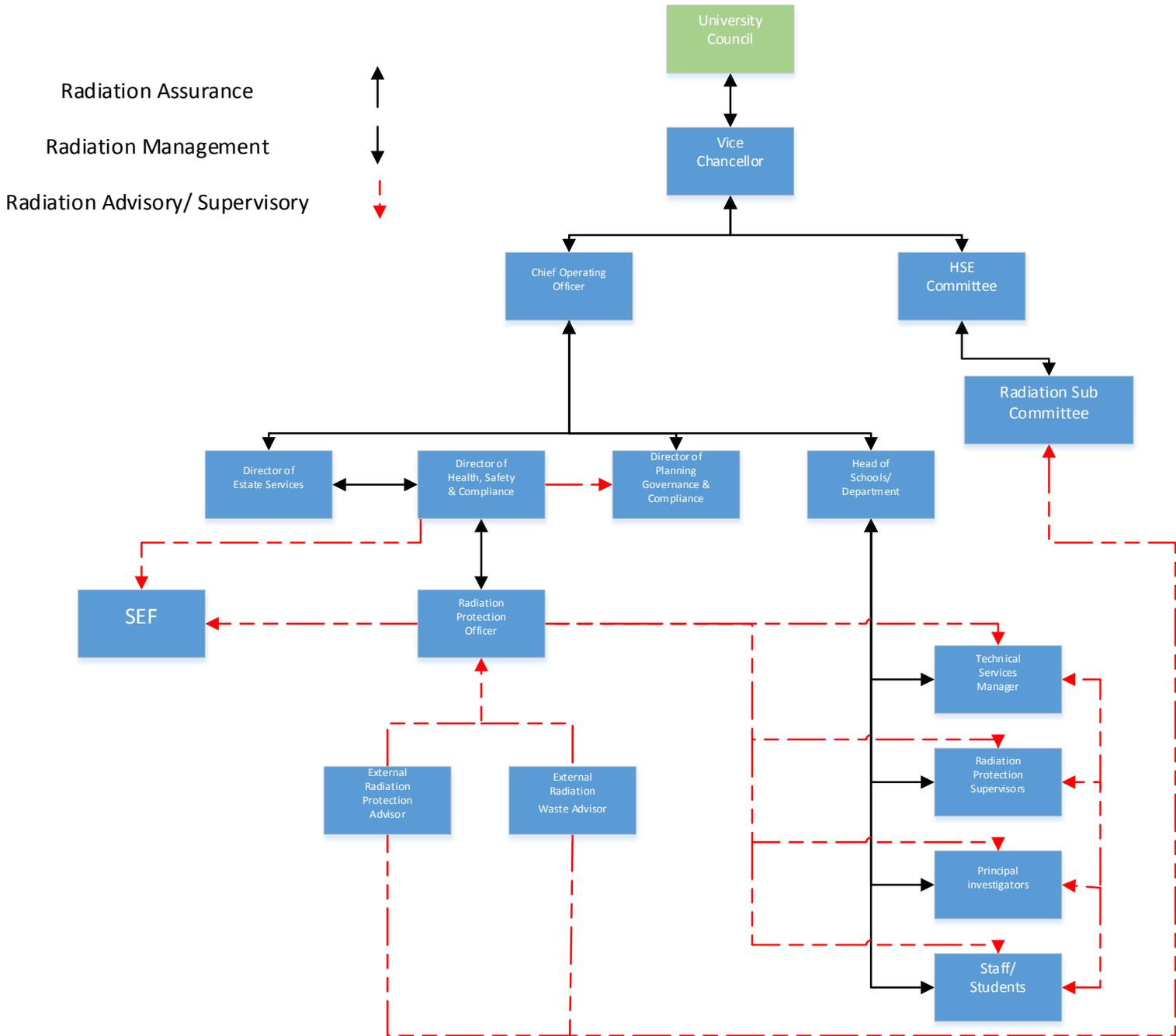
- implementing procedures to ensure that all work areas where radioactive materials are used follow the Environment Agency guidance on the design of radiation facilities and meet the standards required under EPR16. To achieve this SEF is required to consult with the Radiation Protection Adviser/Radioactive Waste Adviser (RPA/RWA) on behalf of the Operator, at the planning stage, for advice on best practice including design, fixtures, fittings and security. SEF must ensure sufficient on-going consultation with the RPA/RWA to ensure new or refurbished radiation work areas are completed and handed over in a condition that satisfies statutory requirements.

Head of Radiography for the Clinical Imaging Science Centre is responsible for:

- the supervision and safety of radiographers working under their control
- must ensure that radiographers adhere to the relevant operator procedures.
- the use, storage, security and disposal of radioactive substances used within their areas of control.

Radiation Workers are responsible for:

- working in accordance with this policy, radiation safety procedures and local rules,
- undertaking any training required to become competent or maintain competency,
- the ordering and acquisition of radioactive substances through the Isostock system
- keeping required records of materials and also those required for the accumulation and disposal of radioactive waste
- exercising reasonable care when working with ionising radiation,
- correctly using any protective equipment provided,
- reporting any defect in such equipment,
- wearing personal dosimeters where provided,
- not undertaking actions which may endanger themselves or other persons.
- reporting any discrepancies or deficiencies to the local RPS.



6. Management System to ensure

Central management

Management of radiation safety within the University is achieved through the line management structure as detailed in the EPR16 User procedures. The University has delegated the responsibility of day to day management to the Radiation Protection Officer who will provide advice, support, and guidance to the University and undertake certain duties on behalf of the individual schools such as, submitting application for variations to registrations and authorisations,

Whilst day to day management has been passed to the RPO the University understands it is ultimately responsible and as such regular meetings will be held between the RPO, the University Health & Safety & Compliance Director (UHSD) and the Director of Estate Services to ensure that the University is working within the requirements of its Permits and to maintain good communication and consultation channels.

The Radiation Protection Sub Committee, which comprises the School RPSs, the Radiation Protection Adviser (RPA), RPO, UHSD, the Radioactive Waste Advisor (RWA), and a Chairperson appointed by the University Health and Safety Committee advises the University Health and Safety Committee on all aspects concerning compliance with legislation governing the keeping and use of sources of ionising radiation, and the protection of persons liable to be exposed to radiation hazards (includes approval of new projects working with radioactive materials). The sub committee meets three times per year to review compliance with the Ionising Radiations Regulations 2017, the Environmental Permitting Regulations 2010, and other issues relating to the management and implementation of radiological safety on campus.

Radiation Protection Adviser/Radiation Waste Adviser

The University as the Radiation Employer under IRR17 and the Site Operator under the EPR16 Permit has appointed a Radiation Protection Adviser (RPA)/Radioactive Waste Adviser to advise the measures required to ensure compliance with applicable legislation and Permit conditions.

Radiation Protection Officer

The RPO is responsible for the administration and development of systems of control relating to radiological protection, in order to ensure compliance with all legislation governing ionising radiation work (including IRR17, EPR16 and the Health and Safety at Work Act 1974).

7. Glossary of terms

- **Approved Dosimetry Service:** a dosimetry service approved by the Health and Safety Executive under Regulation 35 of IRR17.
- **Best Available Techniques (BAT):** a way of ensuring, using all reasonably practicable measures, that discharges and disposals are minimised and radiation risks to the environment and public are as low as reasonably achievable. BAT must be employed as a requirement of the University's Permit to accumulate and dispose of radioactive waste.
- **Ionising radiation:** alpha and beta particles, gamma rays, X-rays, high speed electrons, neutrons, protons, and other nuclear particles capable of producing ions directly or indirectly in their passage through matter.
- **Ionising radiation source:** any radioactive substance both open and sealed, X-ray set or particle accelerator.
- **Local rules:** the procedures set out by the University to restrict exposure in areas where ionising radiation is present, as required by regulation 17 of IRR17.
- **Radiation Protection Advisor (RPA):** appointed by the University (the Radiation Employer) to advise on all aspects of radiation protection but in particular those matters required by regulation 13 of IRR17.
- **Radiation Protection Supervisor (RPS):** appointed by the Head of School to ensure compliance within schools with the arrangements for radiation protection made by the University and in particular to supervise and monitor the arrangements set out in local rules. The RPS also monitors local compliance with the terms and conditions set out in the registrations and authorisation issued under EPR 2010.
- **Radioactive Waste Adviser (RWA):** appointed by the University (as the Operator) to adviser on compliance with the University's Permits held under EPR16.
- **Radiation worker:** any person working with ionising radiation on University premises; this includes undergraduates, graduates, research fellows, and visiting researchers.
- **University Radiation Protection Service (URPS):** a service provided in collaboration between SEF and the University to ensure compliance on behalf of the University with all relevant legislation regarding ionising radiation. The service comprises;
 - a competent RPA/RWA to provide advice to the URPS, Heads of

School and personnel using radioactive materials on all aspects of radiation protection,

- an Occupational Health Medical Adviser (OHMA) to conduct radiation medicals for classified workers and advise on the health implications of working with radioactive materials and in particular the actions required if accidental overexposure or contamination by radioactive materials occurs,
- an Approved Dosimetry Service (ADS) to monitor doses received by radiation workers due to exposure to ionising radiation whilst at work,
- a Radiation Protection Officer to liaise with the RPA/RWA and manage the URPS on behalf of the Director of Estate Services.