

Ionising Radiation

1. PURPOSE

The purpose of this Procedure is to specify the arrangements in place for the management of ionising radiation, both sealed and open sources and from radiation generating equipment, within the University, to ensure compliance with statutory and best practice obligations.

2. SCOPE

This procedure is applicable from 1 March 2014 and covers work with ionising radiation on all campuses involving University staff, students and visitors.

3. DEFINITIONS

RPA	Radiation Protection Adviser appointed under IRR
Senior RPS	RPS with responsibility for oversight of the work of other RPS's
RPS	Radiation Protection Supervisor - someone with additional training and responsibility to ensure day to day adherence to local rules
Competent Person	Someone with additional training and responsibility to ensure adherence with the terms of the Certificate of Registration and accumulation under the Radioactive Substances Act
Local Rules	Documentation drawn up by RPA detailing procedures to be followed in each specific area where ionising radiation is used.
Radiation User	Any member of staff or student who is authorised to work with ionising radiation
Ionising Radiation	Electromagnetic or particulate radiation capable of producing ion pairs in biological material(s) but does not include electromagnetic radiation of wavelength greater than 100 nanometres.

4. RESPONSIBILITIES

4.1 Vice-Chancellor

The Vice Chancellor has ultimate responsibility to ensure that the University of Ulster complies with all statutory health and safety requirements. He may share this responsibility with

4.2 Deans, Directors, Heads of Schools and Departments and Research Institute Directors

Deans, Directors, Heads of Schools and Departments and Research Institute Directors are responsible for appointing Radiation Protection Supervisors for their area for all work involving ionizing radiation sources both open and/or sealed and X-ray equipment. In some areas it may be necessary to appoint a Senior RPS to oversee the work of several RPS's. In some circumstances it may also be necessary to appoint a Deputy Senior RPS to ensure continuity of cover. In conjunction with Health and Safety Services they will ensure that such supervisors meet competency requirements in respect of knowledge, training and experience. Each Faculty, School or Department will ensure that the necessary resource, e.g. time, equipment, facilities, is allocated to enable radiation protection measures to comply with best practice.

Where applicable the Dean, HOS, RID or HOD, in consultation with Health and Safety Services, is also responsible for appointing a "competent person" under the terms of the Certificate of Registration and authorisation under the Radioactive Substances Act. The "competent person" is normally appointed from amongst the RPS's.

The Dean, HOS, RID or HOD will ensure that in all work with ionising radiations, the radiation exposures to all persons are as Low as Reasonably Practicable. The Dean, HOS, RID or HOD will ensure that all new work with ionising radiations, and any significant modifications are notified to Health and Safety Services at least 42 days in advance of work commencing, so that the University can meet its statutory requirements regarding notification to HSENI.

4.3 Radiation Protection Supervisors

Radiation Protection Supervisors are responsible for the day to day supervision of any working involving ionising radiation sources to ensure adherence to the local rules. Their specific role and reporting arrangements are detailed in writing in the Local Rules.

4.4 Senior Radiation Protection Supervisor

Senior Radiation Protection Supervisor where appointed is responsible for the oversight of the work of other radiation protection supervisors. In addition, the SRPS is responsible for keeping records of isotope holdings, disposals and usage and ensuring that these are within legal requirements. The Deputy SRPS where appointed provides cover for these duties in the absence of the SRPS.

4.5 Competent Person

Competent Person is responsible for ensuring day-to-day compliance with the terms of the relevant Certificate of Registration and authorisation under the Radioactive Substances Act. In addition, the competent person is responsible for the acquisition, storage, handling and disposal of radioisotopes in accordance with procedures developed in conjunction with Health and Safety Services and the Radiation Protection Adviser.

4.6 Radiation Protection Adviser

Radiation Protection Adviser is appointed in writing by Health and Safety Services on behalf of the University in accordance with the Ionising Radiations Regulations and must be a certificated RPA in accordance with the regulations. The RPA is responsible for advising the University on all matters relating to the use of ionising radiation. The RPA will write the local rules for each area in conjunction with RPS's and users.

4.7 Radiation User

Radiation User is responsible for ensuring that they comply with the local rules at all times.

4.8 Health and Safety Services

Health and Safety Services in conjunction with the Dean, HoS, RID or HoD will ensure that the RPS's meet competency requirements in respect of knowledge, training and experience. Health and Safety Services are also responsible for the appointment of the Radiation Protection Adviser to the University and for notifying HSENI at least 28 days in advance of all new work with ionising radiations, and of any significant modifications to existing work.

5 PROCEDURE

5.1 Deans, Directors, Heads of Schools and Departments and Research Institute Directors through Health and Safety Services must notify the University's Radiation Protector Adviser of all work involving ionising radiation. This includes the production, handling, storage, transport and disposal of radioactive material and the use of electrical equipment emitting ionising radiation at more than 5kV. Examples of work which may involve ionising radiation include :- the use of radio-isotopes, sealed radioactive sources within equipment (e.g. x-ray fluorescence, gas chromatographs containing radioactive sources and anti-static devices containing Po210 sources) and other equipment producing ionising radiation (e.g. x-ray diffraction, transmission and scanning electron microscopes, x-ray reflectometry, Auger electron scanning, bone densitometer, etc.).

5.2 The University's RPA in conjunction with Health and Safety Services will advise each area on the steps to be taken to ensure compliance with the relevant legislation. This will include the requirement for risk assessments for the work and the appointment of a Radiation Protection Supervisor for the area and for the development of local rules.

In line with the requirements of the Ionising Radiations Regulations, the University RPA must be consulted on:

- a) The prior examination of plans for installations and the acceptance into work of new or modified sources of ionising radiations;
- b) The periodic checks required to restrict exposure.

5.3 In order to ensure competence, the RPS will be required to attend training in their role, as determined by the RPA, before being permitted to fully undertake their duties as RPS. RPS's are responsible for the day to day supervision of any work involving ionising radiation and for ensuring that the local rules are followed at all times. Other specific duties and reporting arrangements will be detailed in writing in the Local Rules.

5.4 Each radiation user is also required to attend training specific to their particular requirements as determined by the RPA. Each user will follow the local rules at all times.

5.5 For work involving radioactive substances for which a Certificate of Registration or authorisation is required under the Radioactive Substances Act a "competent person" will be appointed. The "competent person" is responsible for ensuring that the terms of the Certificate are met at all times. This person is required to make themselves available for inspections by the Northern Ireland

Environment Agency. Such inspections are co-ordinated through Health and Safety Services.

- 5.6 Regular monitoring and inspection will be required for each area where work with ionising radiation is undertaken. Records of such monitoring must be kept for future inspection.
- 5.7 Workers using certain radioisotopes may be required to undergo regular monitoring for intake.
- 5.8 Any changes in the Local Rules, including changes in individuals appointed as RPS's, must be made in consultation with Health and Safety Services as soon as reasonably practicable.
- 5.9 The RPA will be a specialist adviser to the relevant statutory health and safety committee. In some areas, on the advice of the RPA and Health and Safety Services, a Radiation Protection Committee may be established. Where such a Committee exists it will also report to the relevant statutory health and safety committee. All Northern Ireland Environment Agency and HSENI reports will be sent to the relevant Statutory Committee for monitoring purposes.

6 FURTHER INFORMATION

Further information relating to ionising radiation is contained in the guidance associated with this procedure

7 REFERENCE DOCUMENTS

The Health and Safety at Work (Northern Ireland) Order
Ionising Radiations Regulations
Radioactive Substances Act
The Ionising Radiation (Medical Exposure) Regulations