THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

PROFESSIONAL SERVICES

DIRECTORATE OF COMPLIANCE AND RISK

RADIOLOGICAL PROTECTION SERVICES

RADIATION TECHNICAL ADVISOR

VACANCY REF: PSX-022962

Salary:	Grade 6 £36,024 to £44,263 per annum
Hours:	1 FTE
Duration:	Permanent
Location:	Oxford Road, Manchester

Enquiries about the vacancy, shortlisting and interviews:
Manager: Ian Haslam
Email: Ian.Haslam@manchester.ac.uk

Overall Purpose of the Job:

To work closely with the Head of Service and Radiation Technical Adviser in managing the University's strict liability defence of its uses and disposals of radioactive materials.

To assist with the maintenance of duty of care arrangements made under the provisions of the Ionising Radiations Regulations 2017, particularly with regards to risk assessment, operating procedures / local rules and materials accountancy.

To manage arrangements for the safe use of x-radiation equipment including risk assessments, standard operating procedures and local rules, and to undertaken conformance / compliance surveys.

To assist in compliance with transport legislation and to liaise with other University staff regarding the export and import of radioactive materials.

To work with the Head of Service to collate submissions to the Office for Nuclear Regulation regarding the Nuclear Safeguards Act 2000 and Additional Protocol.

To assist with the management of process for the use of fissile materials within the scope and provisions of the ONR Safeguards State System for Accountancy and Control.
To work closely with the team in managing and delivering the radiological protection training program.

To work with the Non-ionising Radiation Technical Adviser in delivering a laser safety compliance programme

To work with the team on radiation metrology and other laboratory based activities.

Key Responsibilities, Accountabilities or Duties:

- The Radiation Safety Unit is a small team comprising the Head of Radiological Protection, Radiation Technical Adviser, and Non-Ionising Radiation Technical Adviser. Due to the nature of the compliance matters addressed, it is important that the Service can maintain a resilient 'business as usual' approach, meaning the team members understand each other's' roles in such a way as to be able to undertake those roles and lead the service should circumstances dictate.
- To work with the other Radiation Technical Advisers on matters relating to the University's radiochemistry and materials engineering activities.
- To assist the Head of Service and work with Radiation Technical Adviser in interactions and communications with statutory compliance officers such as those of the Environment Agency, Health and Safety Executive and Office for Nuclear Regulation.
- Liaise with research groups and where necessary collaborators and external agencies on the development and introduction of radiological management and control systems.
- To assist the Head of Service and work with colleagues in the team on the development of a database to capture dual-use research projects and collaborations for onward annual reporting to the Office for Nuclear Regulation.
- To work alongside the Non-ionising Radiation Technical Adviser on a workflow management system (LabCup) which is used for ionising and non-ionising radiation activities.
- To work with the Radiation Technical Adviser on the management and control of sources of ionising radiation. This includes detailed source accountancy, monthly reporting.
- To assist with the submission of annual reports on radioactive materials holdings and disposals to the Environment Agency.
- Should such a system be developed, it will be a significant responsibility to work with the other Radiation Technical Adviser in developing / implementing real-time electronic systems for the management and control of sources of ionising radiation and also compliance reporting activities, innovating a sustainable approach to compliance management.
- To work with partners on the decanting and relocation of laboratories and groups from the North Campus to new facilities in the Henry Royce Institute.
- To liaise closely with key stakeholders in FSE, specifically the Henry Royce Institute, Centre for Radiochemistry Research and the Dalton Institute.. To lead the RSU team
- Contribute to the collective knowledge of the University Safety team in gaining knowledge and experience of dealing with mixed hazard materials and materials having unknown or unpredictable hazards, and have a good working knowledge of COSHH.
- With the RSU team, to provide specialist technical advice and support in dealing with unusual radioactive materials and chemically complicated radioactive waste (e.g. EURATOM / SSAC registered materials, the disposal of redundant high activity sources and legacy waste issues).

- To show leadership and yet as an equal in an integrated team to cooperate closely with colleagues in ensuring that essential activities are undertaken effectively, and that in doing so ensuring a 'corporate memory' of activities and functions is developed; typical RSU being:
    - assisting users in managing acquisitions, uses and disposals of open source radioactive materials and maintaining appropriate statutory records;
    - to work with the Radiation Technical Adviser in maintaining an accurate record of all sealed radioactive sources;
    - measuring radiation doses and undertake contamination surveys within the laboratories and storage facilities to ensure their proper continued designation as Controlled or Supervised areas;
    - undertaking routine surveys and prepare reports offering advice / recommendations to Heads of Schools on any modifications required to radiation to reduce radiation doses or contamination risks;
    - surveying drainage systems on campus to determine their suitability for the disposal of radioactive aqueous waste and to define these systems by clear labelling;
    - advising and assisting Estates staff and external contractors undertaking maintenance work etc. in radiation work areas and services such as drainage and fume extract systems;
    - advising on the suitability or otherwise of Personal Protective Equipment (PPE) for use in areas where radioactive materials are handled;
    - Work with other Radiation Technical Advisers in arranging statutory instrument calibrations, issuing appropriate calibration certificates or arranging for the repair of faulty instruments.
- To prepare demonstrations of radiation monitoring equipment, shielding, etc., and to give presentations on specialist topics to radiation workers.
- To be available, at short notice, to deal immediately with radioactive spills or suspected overexposures of individuals to radiation.
- To develop, manage and coordinate the ionising radiation safety training programme, delivering training as appropriate. Liaising with the Non-ionising Radiation Technical Adviser in delivering a training programme.

PERSON SPECIFICATION

Essential Knowledge, Skills and Experience*:*

Qualifications and experience:

- A recognised first degree in physics, chemistry, chemical sciences or (nuclear related) engineering and preferably a research degree in radiochemistry or a nuclear-related materials science / engineering subject.
- A higher degree or qualification in radiological protection, health physics or the UKHSA RPTS Core of Knowledge / Professional Development module.
- Relevant experience and leadership in practical radiological protection and the management of work with radioactive materials, and experience of providing specialist technical support.
- To have or be prepared to work towards having a professional qualification (e.g. the AURPO / University of Strathclyde Certificate of Development in Radiation Protection) and to gain

membership of the Society for Radiological Protection (SRP) and Association of University Radiation Protection Officers (AURPO).

Skills and competencies:

- Have a working knowledge of hazard identification and risk assessment.
- To be able to offer constructive and innovative contributions to the management of materials and administrative systems, and to organise laboratory processes.
- To be able to recognise and understand the hierarchy and cultures within groups and Schools and thereby effectively deliver support and solutions.
- Be an excellent communicator and have an ability to work proactively with colleagues at all levels and across disciplines.
- Show leadership and be persistent in assessing situations and negotiating solutions.
- Be able to work with others in the laboratory environment by offering practical and intellectual help.
- A high standard of IT skills and the use of Excel for data management, report generation.
- Have good organisational and time management skills.
- Be fluent in written English; have good report writing skills and an understanding of syntax and grammar.

Desirable Knowledge, Skills, Experience and Qualifications:

- Previous experience in the management and control of radioactive materials.
- Experience of databases and workflow management systems such as Access and Labcup or have a willingness to learn and develop such skills.
- Experience of editing and updating websites and / or blog sites.
- A willingness to develop skills in co-authoring e-learning packages.
- Be confident in developing personal knowledge and skills, and also to feel comfortable in attempting the unknown.
- Be willing to learn and develop creative skills in the use of written and audio-visual media and with other talented individuals to produce exciting and stimulating informatics and similar products.