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Policy statement

BBSRC seeks to achieve the highest working standards for all work with radioactive substances, and other sources of ionising radiation. This is in order to protect the health and safety of employees, students, visitors and other people working on BBSRC sponsored sites, and the general public.

As a matter of course, all work with radioactive substances, and other sources of ionising radiation, must meet all relevant legislative requirements.

This policy is supplementary to the BBSRC Health and Safety policy, (Appendix A9.1). Application of it must be consistent with the requirements of both health and safety and environmental protection regulations, to ensure the protection of the health of workers and the general public against dangers arising from ionising radiations, and the protection of the environment.

The Radiation Protection policy has been agreed with local Health and Safety Advisors and the Trade Union Side and complies with statutory best practice.
1. Principles

1.1 BBSRC will ensure that the Radiation Protection policy complies with and reflects the legal framework and best practice.

1.2 Every effort will be made to reduce the risk to employees, students, visitors etc by the use of alternative non-radioactive techniques or less hazardous sources wherever reasonably practicable, in accordance with the statutory requirements of ALARP (As Low as Reasonably Practicable) and BAT (Best Available Techniques).

1.3 BBSRC will implement detailed procedures and agreed practices across the organisation for the suitable management of radiation work.

1.4 All reasonable steps will be taken to protect the environment from discharges and disposals of radioactive waste in accordance with ALARP and BAT.

1.5 This policy will be supported by the provision of adequate training, information and instruction to key employees to ensure that they have a level of knowledge and competence commensurate with their involvement.

2. Legislative framework

2.1 The legislative framework for radiation work and radioactive substances is covered by two principal pieces of legislation:

The Ionising Radiations Regulations 1999 (IRR99) are enforced by the HSE, and require us to keep work-related radiation exposures As Low As Reasonably Practicable (ALARP). IRR99 requires the radiation employer, where required, to appoint a suitable Radiation Protection Adviser (RPA) to provide advice on compliance with these regulations.

The Environmental Permitting (England and Wales) Regulations 2010 (EPR2010) and EPR (England and Wales) (Amendment) Regulations 2011, as amended, are enforced by the Environment Agency. These regulations are primarily concerned with the protection of the environment and require us to maintain the keeping and disposal of radioactive materials within the limits specified in individual Environmental Permits. The Environmental Permits require the radiation employer to consult suitable Radioactive Waste Advisers (RWAs) to provide advice on compliance with these regulations.

2.2 Scotland and Northern Ireland do not have EPR2010, so the new arrangements will be implemented via The Radioactive Substances Act 1993 (Amendment) (Scotland/NI) Regulations 2010 and The Radioactive Substances Exemption (Scotland/NI) Order 2010 – as amended.
3. Organisation

3.1 Establishment Directors

The Institute Grant Agreement states that “The Institute will take all necessary steps to ensure compliance with all legal requirements and best practice for health and safety, environmental compliance and the security of staff in relation to the operation of the Institute”.

Directors of establishments supported by BBSRC which carry out work with radioactive substances, or other sources of ionising radiation, must ensure that suitable management arrangements are made and resources and equipment are provided and maintained to cover work with ionising radiations.

These include that:

- regulatory authorities are given prior notification of radiation work, and Environmental Permits are obtained, as required by legislation
- where required by legislation, suitably competent Radiation Protection Advisers (RPAs) / Radioactive Waste Advisers (RWAs) are appointed to advise the establishment on radiation protection and radioactive substances matters in accordance with the regulations. They will have direct access to the director and senior management. They must be given sufficient authority, time and resources to fulfil their role effectively.
- a suitably competent Radiation Protection Officer (RPO) is appointed in writing to manage the day-to-day operation of the establishment's radiation protection arrangements. They will have access to senior management and be a member of the establishment Health and Safety Committee or equivalent Committee. They must be given sufficient authority, time and resources to fulfil their role effectively and will be involved, as appropriate, in establishment safety audits/inspections.
- where required by legislation, suitably competent Radiation Protection Supervisors (RPSs) are appointed to supervise work with ionising radiations. Appointment criteria must be in accordance with the HSE Information Sheet on RPSs. They must be given sufficient authority, time and resources to fulfil their role effectively.
- 'Local Rules' and contingency plans, as required by legislation, are implemented and periodically reviewed.
- formal prior risk assessments for all radiation work are prepared and communicated effectively to all relevant persons.
- suitable and sufficient information, instruction and training is provided to radiation workers, and others as appropriate, before radiation work commences.
- appropriate records are made and retained as required by legislation.

Such duties may be delegated, but full responsibility for compliance rests with the Establishment Director (“the radiation employer”).
3.2 Individuals

Before commencing radiation work all employees must:

- attend all appropriate training as required
- ask for more information/instruction/training if they feel that they have not been given sufficient to enable them to work safely, and at minimal risk to themselves and others
- discuss the proposed radiation work in advance with an appropriate RPS, and agree procedures to be followed with them
- read and understand the 'Local Rules', SOPs, risk assessments and emergency procedures relating to the work
- advise their line manager as soon as possible of planned pregnancy, pregnancy or breastfeeding, so that appropriate actions can be taken in performing radiation work:
  - seek to reduce the radiation risks of the work to a minimum, using safe working methods and equipment as instructed and using only the minimum quantities of radioactive substances necessary for successful research. Non-radioactive alternative methods should always be considered
  - co-operate with the line manager, RPS, RPO and any other person appointed to advise or monitor safety arrangements for radiation work
  - follow the 'Local Rules', SOPs, other instructions and emergency procedures relating to the work
  - only purchase radioactive substances in accordance with the specific systems and local rules designed for that purpose. This includes purchasing only enough radioactivity sufficient for immediate needs
  - carry out radiation work only in appropriately designated areas and regularly monitor these areas for contamination
  - maintain clear, legible records as required by legislation, 'Local Rules' and SOPs
  - inform the RPO if they intend to work with ionising radiation at another site/organisation allowing good time to enable arrangements for off-site dosimetry to be implemented
  - wear personal radiation dosemeters where required by Local Rules and as instructed
  - inform the RPO and local RPS immediately of the loss or uncontrolled release of any radioactive substances or sources
• dispose of radioactive wastes only in accordance with 'Local Rules' and SOPs
• inform the RPO of the termination of work with ionising radiations

4. Local arrangements

4.1 Each establishment which uses radioactive substances, or other sources of ionising radiation, must make suitable arrangements to manage such work. These will include local rules and procedures designed to minimise radiation doses to staff, students, contractors and all other persons. Local rules will be prepared to cover all controlled areas, supervised and other areas associated with the use of ionising radiation carried out in BBSRC. The local rules will include systems of work, which must be followed at all times.

4.2 Local rules will be reviewed periodically for each area, and whenever there are significant changes in the nature of the radiation work or management of radiation protection. Management are responsible for ensuring that all employees are made aware of any changes in local rules.

4.3 Any incident (accidental or otherwise) involving exposure to staff or the public, or uncontrolled/unauthorised release to the environment, must be brought to the attention of the RPO and the Health and Safety Advisor and local RPS immediately. Contravention of local rules must be reported to the RPO so that they can take appropriate action. Significant infringement of local rules will be a disciplinary offence.

4.4 Each establishment will include radiation work and radiation work areas in the scope of internal health and safety audits/inspections. The inspection team will include the RPO, or an RPS appointed by the RPO, as appropriate. All non-conformances will be brought to the attention of the RPO, as well as the appropriate Head of Department.

5. Training

5.1 All employees working with ionising radiation at a BBSRC establishment will receive prior and on-the-job training appropriate to the work being performed. Training in the correct use of new equipment will also be given to individuals, where appropriate.

5.2 All appointed RPSs' will receive appropriate training prior to being appointed and refresher training as necessary thereafter. It is essential that they know and understand the requirements of the regulations and the local rules as they affect the work that they supervise, and have appropriate familiarity with the work which they supervise.

6. Monitoring of radiation areas

6.1 Each establishment must monitor any controlled, supervised and other areas as appropriate on a regular basis to demonstrate that surface contamination, air contamination and/or dose rates are satisfactory for continuing work with ionising radiation.
6.2 Equipment for such monitoring (contamination monitors or dose-rate meters) must be provided and maintained. They will be annually tested, calibrated and thoroughly examined by a Qualified Person in accordance with IRR99. Monitoring and test results will be maintained by each site for at least 2 years. It is good practice to keep the records longer as they can provide good support to exposure risk management, and any subsequent decommissioning.

7. Audit and review

Establishment Radiation Protection Officers will review the implementation of this policy. The following indicators will be used to monitor the effectiveness of the policy:

- Contamination survey results
- Dosimetry results
- Reported radiation incidents
- Significant non-conformances reported by RPOs
- RPA inspection visits and audits, including review of personal dosimetry results
- Reports of inspections by the HSE and EA

8. Policy review

The implementation of this policy will be monitored through the BBSRC Joint Health and Safety Committee.

9. Amendment history

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