# IONISING RADIATION POLICY

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<tr>
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<td>Acute - Planned</td>
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<tr>
<td>Policy Owner</td>
<td>Chief Operating Officer Acute and Ambulance</td>
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<td>Policy Author</td>
<td>Radiation Protection Adviser</td>
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<td>Next Author Review Date</td>
<td>1st September 2025</td>
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<td>Approving Body</td>
<td>Policy Management Sub-Committee</td>
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<td>Version No.</td>
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<tr>
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<td>28th February 2026</td>
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This policy will be reviewed in line with the Document Control Policy, please read the policy in conjunction with any updates provided by National Guidance.
### DOCUMENT HISTORY

(Procedural document version numbering convention will follow the following format. Whole numbers for approved versions, e.g. 1.0, 2.0, 3.0 etc. With decimals being used to represent the current working draft version, e.g. 1.1, 1.2, 1.3, 1.4 etc. For example, when writing a procedural document for the first time – the initial draft will be version 0.1)

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<th>Date of Issue</th>
<th>Version No.</th>
<th>Date Approved</th>
<th>Director Responsible for Change</th>
<th>Nature of Change</th>
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<td>01/04/15</td>
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<td>05 Oct 15</td>
<td>Consultant Radiologist</td>
<td>Update for new legislation and remove IRMER to separate procedures</td>
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<td>22 Nov 18</td>
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<td>Approved at</td>
<td></td>
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<td>29/01/21</td>
<td>2.0</td>
<td>22 Nov 18</td>
<td>Chief Operating Officer</td>
<td>12 month blanket policy extension due to covid 19 applied with author review date set 180 days prior to Valid to Date.</td>
<td>Ratified at Quality &amp; Performance Committee</td>
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<td>11/05/21</td>
<td>2.0</td>
<td>22 Nov 18</td>
<td>Chief Operating Officer</td>
<td>Extended policy uploaded and linked back with new cover sheet</td>
<td>Approval Corporate Governance</td>
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<tr>
<td>28/11/22</td>
<td>2.1</td>
<td></td>
<td>Chief Operating Officer</td>
<td>Added IRR registration/consent process, IRMER licensing, cooperation of employers, incident reporting, supervision (RPC), restructured policy objectives.</td>
<td>Corporate Governance</td>
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<td>20/02/23</td>
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<td>22/02/23</td>
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<td>22/02/2023</td>
<td>Chief Operating Officer</td>
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**Version No 3.0**
Contents
1. Executive Summary .......................................................... 4
2. Introduction ........................................................................ 5
3. Definitions ......................................................................... 5
4. Purpose ............................................................................... 6
5. Roles and Responsibilities .................................................. 7
6. Policy detail – General and IRR Compliance (managing safety of staff and public) .............. 10
7. Policy detail – Governance and Supervision ...................................... 11
8. Policy detail – PPE and Personal Dosimetry ........................................ 11
9. Policy detail – IRMER Compliance .................................................. 12
10. Policy detail – EPR Compliance .................................................... 13
11. Policy detail – Non-medical uses of radiation .......................................... 13
12. Incident reporting and notification of occurrences .......................................... 13
13. Consultation ........................................................................ 14
14. Training .............................................................................. 14
15. Monitoring Compliance and Effectiveness ............................................... 14
16. Links to other Organisational Documents ............................................... 15
17. References ........................................................................... 15
18. Appendices .......................................................................... 16
   Appendix A – Circumstances when expert advisers must be consulted ...................... 16
   Appendix B – Duties of Radiation Protection Supervisor (RPS) .................................... 18
   Financial and Resourcing Impact Assessment on Policy Implementation .................... 19
   Equality Impact Assessment (EIA) Screening Tool .................................................. 21
1. Executive Summary

This policy relates to the use of ionising radiation and the protection of patients, staff and other persons on Trust sites and is intended to enable the safe and legal use of ionising radiations for medical purposes.

The key principles of the Policy are:

- The justification of exposure to ionising radiation
- The optimisation of exposures, i.e. to minimise the radiation dose while maintaining diagnostic benefit
- Occupational radiation doses should be limited
- The observance of legal requirements

The processes described in this policy are displayed in simplified form below:
2. Introduction
This policy concerns the safe use of ionising radiations at premises owned or managed by Isle of Wight NHS Trust (the “Trust”). It states policy, arrangements and responsibilities for the Trust and for other organisations approved by the Trust to use ionising radiations on its premises or within the geographical boundaries of the Trust (the “approved organisations”). Approved organisations are bodies which have a contractual agreement with the Trust to provide services or support which means their employees may use or be exposed to ionising radiation.

This policy applies to medical exposures of patients to ionising radiation for diagnosis, treatment and research and to all other uses of ionising radiations.

The policy applies in particular to the uses of ionising radiation for Radiology (X-ray and CT) Breast Imaging Unit and sentinel node biopsy in theatres using radioactive tracers.

This policy applies to all staff (clinical or non-clinical) involved in procedures relating to Ionising Radiation requiring protection.

The policy does not apply to non-ionising radiations for which there are separate policies.

The purpose of this policy is to ensure:

- The safe and legal use of ionising radiations in order to protect patients, staff, visitors and the general public.
- A reduction in the number of adverse events relating to ionising radiation.
- Compliance with the legislation referenced at the end of this document and any relevant legislation that comes into force during the currency of this policy.

The Trust is committed to a policy of restricting exposures to ionising radiations for employees, visitors, patients and the general public, in accordance with the “as low as reasonably practicable” (ALARP) principle and will affect this through the organisational and management arrangements documented in this policy. This includes the use of alternative non-ionising techniques wherever appropriate.

The Trust is committed to minimising the effect of radiation emissions, direct or indirect, on the environment as a result of use of radioactive materials.

3. Definitions
ALARP principle ‘As low as reasonably practicable’. A legal requirement to optimise all exposure to radiation. This applies to staff, public and patient radiation exposures.

ARSAC Administration of Radioactive Substances Advisory Committee. The group that issues IRMER licences for diagnostic or therapeutic use of radioactive substances.

“Controlled Area” An area where ionising radiation is used. Such areas require an RPS to supervise adherence to Local Rules.

“Ionising radiation” means radiation from radiographic equipment, the decay of radioactive material, radiation from linear accelerators, etc. as used in radiology, breast imaging, and nuclear medicine. It does not include MRI, lasers or ultraviolet light; these use non-ionising radiations and are covered by the Trust’s policy for the safe use of magnetic resonance imaging and the Trust’s policy for the safe use of optical radiation respectively.

IR(ME)R The Ionising Radiation (Medical Exposure) Regulations 2017. This legislation is for the protection of patients from radiation.
4. Purpose

The purpose of this document is to ensure that the Trust complies with its legal duties to protect staff, patients and the public from Ionising Radiation. It will do this through the three key principles of radiation safety:
Ionising Radiation Policy  
Version No 3.0  

5. Roles and Responsibilities
Responsibility for compliance with this policy lies with the Chief Executive, relevant Directors, Clinical Leads and Managers, who are also responsible for the funding of related safety equipment, including personal protective equipment including adequate facilities for storage.

5.1 Chief Executive
Overall responsibility for compliance with statutory obligations lies with the Chief Executive.

5.2 Clinical Director
The Clinical Director will authorise those non-medical staff able to refer patients, or other persons, for exposure to ionising radiations.

5.3 Head of Diagnostic Imaging
The Head of Diagnostic Imaging is responsible for ensuring that this policy and the various employer’s procedures are kept up to date, in keeping with best practice and legal requirements.

The Head of Diagnostic Imaging is the Trust’s Risk Lead for ionising radiations and will receive incident report forms relating to ionising radiations.

The Head of Diagnostic Imaging will convene appropriate meetings of the Radiation Protection Supervisors to discuss matters of safety.

The Head of Diagnostic Imaging will ensure an RPA is appointed who is competent to advise on all aspects of radiation practices carried out in the Trust.

The Head of Diagnostic Imaging will ensure MPEs are appointed who are competent to advise on all aspects of patient imaging, intervention and therapy involving ionising radiation.

The Head of Diagnostic Imaging will ensure that valid registration and consent with HSE is in place at all times for all practices carried out by the Trust.

5.4 Care Centre Managers
The responsibility for ensuring that all radiation equipment is installed, critically examined, commissioned and maintained to satisfy radiation safety requirements, and is included in the equipment replacement programme, lies with the relevant Care Centre Manager.

The Care Centre Manager must ensure sufficient time resources are made available to allow training and CPD of IRMER duty holders and Radiation Protection Supervisors, and that duty holders have sufficient time and resources to carry out their roles.

5.5 Local Managers
The local manager will make arrangements to ensure that all employees upon taking up their appointment or additional duties and acting as “practitioner” or “operator”, can provide documented evidence of the training received and qualifications gained relevant to the use of ionising radiations within the requirements of the post.

Those employees administering radiopharmaceuticals to humans will be required to hold the relevant practitioner’s licence(s) issued by the ARSAC committee.

The local manager for an area where administration of radiopharmaceuticals is carried out is responsible for ensuring a valid employer’s licence from the ARSAC committee.
The local manager is responsible for ensuring that training records for those employees who work with ionising radiation and those authorised to act as relevant duty holders under IRMER are maintained.

Where employees have previously worked with radiation in that calendar year, the local manager is responsible for collecting dose data from the previous employers and passing it to the RPA in a timely manner for inclusion in the employee’s dose record.

The manager responsible for each radiation area must ensure that all staff are appropriately trained to work safely with radiation in that area and that this training is repeated at suitable intervals (at least every three years) and records are kept. They must also ensure that any contingency scenarios in the Local Rules are rehearsed at least annually and records are kept.

Where imaging or therapy is carried out using ionising radiation, the local manager must ensure IRMER practitioners and operators are adequately trained, carry out CPD activities and that these are recorded.

The local manager is responsible for ensuring that prior radiation risk assessments are generated, and any resulting actions are carried out. If an RPA, RWA or MPE should be consulted regarding a new or changed radiation facility, the local manager should ensure this is done.

The local manager should appoint sufficient competent radiation protection supervisors to ensure work with radiation is adequately supervised.

The local manager is responsible for ensuring that written protocols and procedures are in place for any work carried out using radiation and that staff comply with these written instructions.

5.6 Radiation Protection Supervisors

The Trust (with reference to appropriate HSE guidance (HSE1)) will appoint in writing suitable Radiation Protection Supervisors who will be responsible for day to day supervision of work with ionising radiation, ensuring that it is carried out in accordance with the local rules.

The RPS is responsible for ensuring that the local rules are kept up to date, reflect the findings of the risk assessments and identify the main working instructions intended to restrict any exposure in that controlled or supervised area.

Where the RPS is appointed in an area using radioactive materials, they are responsible for ensuring records of those radioactive materials are kept up to date.

In circumstances where it is necessary for contingency plans to be initiated, the RPS will conduct an investigation (with assistance from the Radiation Protection Adviser where required) into the cause of those circumstances and to identify the measures, if any, required to prevent reoccurrence of those circumstances.

The responsibilities of RPS are provided as an appendix to this policy.

5.7 Clinical Leads

Clinical Leads responsible for the provision of techniques using ionising radiations where a patient receives a medical exposure will ensure that arrangements are in place for the evaluation of each exposure used for diagnostic purposes in accordance with the Trust's IR(ME)R procedures and that a record is maintained of that evaluation. Where evaluation occurs outside of that area, a written agreement must be in place.

5.8 All Employees

Any reference to Employees of the Trust in this policy means those directly employed by the Trust, contractors working on behalf of the Trust, volunteers, locums and agency staff, and temporary staff working as if they were employees within the line management structure of the Trust.
The same requirements will apply to employees of other organisations (outside workers). The Trust and other organisations should have written cooperation arrangements for their employees to safely enter the controlled areas of the Trust.

Employees of the Trust will be required to adhere to the arrangements made under this policy, and to ensure that operational aspects minimise the hazards and risks associated with the use of ionising radiations both to themselves, patients and the general public.

Employees of the Trust are required to co-operate with each other and with other radiation employers to minimise the possibilities of untoward incidents and inappropriate, inefficient or ineffective use of ionising radiations.

All employees are responsible for

- exercising reasonable care and following relevant local rules
- complying with the conditions laid down in EPR as if a permit were in place.
- using, as instructed, any protective equipment and personal dosemeters provided by the employer
- reporting to their line manager and RPS any defect in protective equipment or dosemeters
- undertaking any training deemed necessary
- complying with the employer’s procedures and protocols for medical exposures
- reporting immediately to their RPS (or, in absence of RPS, their line manager) if any incident occurs in which a patient may have received a significant accidental or unintended exposure (SAUE) e.g. a radiation exposure significantly greater than considered proportional in the circumstances (and/or a lower dose in the case of therapeutic exposures) or any other incident in which a person is exposed to radiation.
- ensuring that they do not recklessly endanger the safety of themselves or of others

Failure to comply with any of these procedures may be considered a disciplinary matter. However, in exceptional circumstances, when an employee does deviate from a procedure in good faith, the onus to justify that deviation, for example in the best interests of health and safety of the patient and/or staff must fall on the person making that deviation.

Employees involved in procedures using ionising radiations should inform their line manager in writing when a pregnancy is confirmed, or where breast feeding is being undertaken and their work involves using unsealed radioactive sources so that appropriate monitoring and, if necessary, change of duty can be considered. The line manager may seek advice from the appropriate Radiation Protection Adviser.

All employees must report incidents in accordance with the Trust’s Incident Reporting Policy. Incidents of significance should be forwarded to the RPA for dose assessment and an opinion on external reporting. The employer’s procedures for medical exposures include the procedure to be followed if a patient receives a significant accidental or unintended exposure (SAUE). These procedures include how the decision regarding whether or not this requires reporting to a regulatory authority is made.

All employees involved in procedures using ionising radiation are required to inform their line manager if they are involved in procedures using ionising radiation with another employer. This is to enable the Trust to co-operate with any other employers, so all required personnel have access to information on the possible exposure of employees to ionising radiation in order to monitor their total dose from ionising radiation.
5.9 Radiation Protection Advisers (RPA) and Radiation Waste Advisers (RWA)

The Trust will appoint suitable, accredited Radiation Protection Advisers and Radioactive Waste Advisers who will advise Trust management, other managers and staff on the statutory requirements and safe use of ionising radiation and disposal of radioactive waste as required by Schedule 4 of IRR and paragraph 256 of the Approved Code of Practice. The Trust provides facilities and managerial arrangements to enable their duties to be performed and give them the authority to inspect and perform such tests as they consider appropriate.

A list of the matters where an RPA should be consulted are given in an appendix of this policy.

The appointment of a Radioactive Waste Adviser is not necessary unless an EA permit for the use of Radioactive Materials is sought.

5.10 Medical Physics Experts (MPE)

The Trust will appoint suitable, recognised Medical Physics Experts who will advise departments making medical exposures on those areas required in Schedule 3 of IRMER. The involvement of the MPE will be as described in regulation 14 of IRMER 2017.

6. Policy detail – General and IRR Compliance (managing safety of staff and public)

6.1 The Trust will minimise the use of ionising radiations and will use alternative techniques wherever reasonably practicable.

6.2 The Trust will consult the relevant RPA and RWA during the planning of new facilities regarding engineering controls, design features, safety features and warning devices. The RPA will base his or her advice on current legislation, standards and practice.

6.3 Prior to any use of ionising radiation, a radiation risk assessment according to IRR regulation 8 will be carried out. The Trust will not proceed with the practice until all control measures identified in the risk assessment are in place.

6.4 Risk assessments must consider radiation doses to workers, public, pregnant workers, breastfeeding workers (where appropriate), trainees and under 18s.

6.5 The Trust will seek and maintain registration or consent approval with HSE for the use of ionising radiations. A check that sufficient registration or consent approvals exist will be part of implementation of any new practice.

6.6 An annual dose constraint of 0.3mSv will apply to all publicly accessible areas and to areas where non-radiation trained staff work. Annual dose constraints for those working with radiation should not normally exceed 2mSv.

6.7 The Trust will make proper provision and maintenance of equipment associated with the measurement, use and production of ionising radiations.

6.8 Employees of the Trust shall only carry out a practice after receiving information, instruction and training to enable them to perform their duties and associated responsibilities in a safe manner. Information must include health risks from ionising radiation, practical radiation protection measures and the importance of complying with IRR.

6.9 Employees of the Trust are required to cooperate and thereby minimise the possibilities of untoward incidents and inappropriate, inefficient or ineffective use of ionising radiations.

6.10 Implementation of this policy will be made by each Directorate and the associated costs met by these bodies.

6.11 The Radiation Protection Adviser(s) must be consulted in advance on matters concerning plans for use or change of use of ionising radiations, maintenance of related facilities and equipment, and protection arrangements relating to all persons.
7. Policy detail – Governance and Supervision

7.1 The Trust will form a standing Radiation Protection Group (RPG) as a working group of the Health & Safety and Security Sub-Committee to oversee and report on compliance with this policy. The RPG will set its terms of reference with reference to this policy.

7.2 The Radiation Protection Group shall meet at least once per annum, and more often as the Chairperson sees fit.

7.3 The Radiation Protection Group shall consist of an appointed Chairperson (the Lead Clinician representing Diagnostic Imaging), Radiation Protection Adviser(s), Medical Physics Expert(s), Head of Diagnostic Imaging, Radiation Protection Supervisors, Medical Director, Head of Clinical Governance, Health & Safety Manager and others concerned with the safe use of ionising radiations.

7.4 Wherever a controlled area is required, managers with responsibility for that area will appoint in writing sufficient numbers of Radiation Protection Supervisors taking into account the need for supervision and support during incident conditions and the advice of the Radiation Protection Adviser.

7.5 Managers with responsibility for radiation areas will provide RPSs with sufficient time, resources, and facilities to carry out their roles.

7.6 RPSs will not be appointed until they have attended an RPS training course provided by the Trust or an approved equivalent course. RPSs should repeat this training at least every 5 years.

7.7 The Head of Diagnostic Imaging shall convene meetings of the Radiation Protection Supervisors to discuss matters of radiation safety. The Radiation Protection Adviser or their delegate will also attend.

8 Policy detail – PPE and Personal Dosimetry

8.1 Where radiation personal protective equipment (PPE) is required it will be noted in the Local Rules for a radiation area. All persons entering the area must wear the correct PPE as directed. Guidance on PPE for specific situations is published on Staffnet by the RPAs:

8.2 Departments using radiation must provide all required radiation PPE for their staff and visitors and suitable storage facilities. PPE must fit properly for all individuals and a range of sizes and designs may be required. Where lead glasses are required, overglasses must be trialled before prescription lead glasses are provided. Each department will keep an inventory of non-disposable PPE items and record a thorough examination for damage at least annually.

8.3 Any PPE not originally procured by the Trust (i.e. user supplied) may be adopted if it is suitable and in good condition. It must be fully compliant with the Trust RPA’s current guidance on acceptable PPE and be CE marked - where any uncertainty exists the advice of the RPA must be taken. Any adopted items must be added to the department’s PPE inventory. Such items remain the property of the employee, but custody of the PPE temporarily transfers to the Trust and they should not be removed from the premises without permission. The adoption should be formally documented in the department’s PPE records.

8.4 Where staff work outside the Trust premises in radiation areas belonging to another employer, the PPE provided by the other employer may be used.

8.5 Where local rules indicate that personal monitoring is required, all persons issued with dose badges by their employer must wear them.

8.6 The Trust will use the services of an HSE approved dosimetry service for the monitoring of personal doses when this is deemed necessary by risk assessment. This applies to classified and non-classified persons.

8.7 Agency staff will be expected to have their own dosimetry, but exceptionally this can be provided by the Trust. Any reported occupational radiation doses must be passed to the agency without delay.
9 Policy detail – IRMER Compliance

9.1 The Trust will ensure that written employer’s procedures for medical exposures are produced and maintained as required by the Ionising Radiation (Medical Exposure) Regulations 2017 (IRMER) and that these are made available to all duty holders. In this context Medical Exposures means exposure defined in IRMER Regulation 3.

9.2 Where the Trust uses a third party to deliver clinical services and IRMER applies (e.g. CT scanning provided by a private provider), an agreement must be made indicating which responsibilities under IRMER lie with each party, and which employer’s EPs take precedence.

9.3 The various IRMER employer’s procedures will address how duty holders are recognised in each area and describe their roles and responsibilities.

9.4 The Trust will ask employees in Practitioner or Operator roles to provide evidence of any professional training which enables them to carry out that role. Medical and non-medical Referrers to imaging departments will be asked to review their IRMER training every three years following the Trust’s VLE training package or equivalent. All medical staff may refer patients for investigation provided sufficient and accurate clinical data is given.

9.5 Other non-medical healthcare professionals may be authorised by the Relevant Clinical Lead to refer patients for certain investigations following application through the expanded scope of practice procedure. The approval of the department carrying out the exposure is required before referrals can be made and their decision to accept referrals is final.

9.6 The responsibility for maintaining an inventory of radiation equipment within each facility and ensuring that requests for radiation equipment are considered within the Trust’s overall replacement programme, lies with the relevant Care Centre Manager.

9.7 The IRMER equipment inventory must contain details of all equipment used for imaging or therapy using ionising radiation at least:
- name of manufacturer
- model number
- serial number or other unique identifier
- year of manufacture
- year of installation

9.8 The Trust will only procure equipment for medical exposures that meets or exceeds the technical standards defined in IRMER regulations 15 and 16.

9.9 The Trust will ensure that IRMER employer licences to administer radioactive materials are maintained at all sites where such activities take place. Individual practitioners who need to hold a ‘practitioner’ licence are responsible for ensuring this is in place. The Trust will make checks to ensure that all relevant licences are in place before carrying out administration of Radioactive Materials for diagnosis or treatment or research.

9.10 The Trust will maintain a process for establishing diagnostic reference dose levels for each procedure using ionising radiations on patients or volunteers and make provision for the measurement of the radiation dose for relevant investigations.

9.11 The Trust will ensure that patients or other persons exposed to ionising radiations receive appropriate information.

9.12 The Trust will ensure that each set of EPs includes arrangements for recording errors and near misses in patient exposures through the incident reporting system (DATIX). An immediate preliminary investigation will be undertaken to determine if a significant accidental or unintended exposure (SAUE) has occurred whenever a DATIX is completed for a patient radiation incident.
10 Policy detail – EPR Compliance

10.1 The Trust will ensure that systems and facilities exist for the safeguarding of radioactive materials, for the safe disposal of radioactive waste and for ensuring that all requirements of the relevant legislation are satisfied.

10.2 At the time of writing, the Trust operates under exemption from the full requirements of the EA permitting scheme. This should be reviewed, with advice from the RPA, at least annually and before any new practice using radioactivity commences.

10.3 Only authorised individuals may order radioactive material and this must be done in accordance with the procedure approved by the RPA or RWA.

10.4 Only authorised individuals may dispose of radioactive material and this must be done in accordance with the procedure approved by the RPA or RWA.

10.5 The RPS for each area using radioactive materials will ensure that a check of the working environment to see that it is fit for use is made at least monthly.

10.6 The RPS will ensure sealed sources are leak tested at a frequency agreed with the RPA (based on Manufacturer’s quoted recommended working life).

10.7 The Trust will apply Best Available Techniques (BAT) to ensure that use of radioactivity is optimised and environmental impact is minimized.

11 Policy detail – Non-medical uses of radiation

11.1 The Trust will not carry out practices involving the use of radiation for non-medical purposes except for non-medical imaging described in IRMER (e.g. medico-legal or sports assessment).

11.2 Should it be required to carry out non-destructive testing, forensic radiography, manufacturing processes, non-human research imaging, or any other practices, this policy MUST be reviewed to include specific requirements of those practices.

11.3 In all cases the RPA must be informed before the new practice occurs and ideally at an early planning stage to allow the relevant RPA or RWA to advise on the practice.

12 Incident reporting and notification of occurrences

12.1 All incidents involving ionising radiation must be forwarded to the RPA for review.

12.2 The RPA will normally determine if any incident is notifiable to any regulatory authority and will report the incident to the regulator if directed to do so.

12.3 The following events are reportable to a national regulator:

<table>
<thead>
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<th>Incident</th>
<th>Notify to:</th>
<th>Time period for reporting (from time of incident)</th>
</tr>
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<tbody>
<tr>
<td>Patient accidental exposure</td>
<td>CQC IRMER Inspectorate</td>
<td>14 days</td>
</tr>
<tr>
<td>Patient unintended exposure</td>
<td>CQC IRMER Inspectorate</td>
<td>14 days</td>
</tr>
<tr>
<td>Radioactive substance administration without an IRMER licence</td>
<td>CQC IRMER Inspectorate</td>
<td>14 days</td>
</tr>
<tr>
<td>Employee overexposure</td>
<td>HSE</td>
<td>‘as soon as practicable’ nominally within 1 business day</td>
</tr>
<tr>
<td>Public overexposure</td>
<td>HSE</td>
<td>‘as soon as practicable’ nominally within 1 business day</td>
</tr>
<tr>
<td>Incident</td>
<td>Authority</td>
<td>Time</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Release or spill a significant quantity of radioactive substance</td>
<td>HSE</td>
<td>Immediate</td>
</tr>
<tr>
<td>Loss or theft of a significant quantity of radioactive substance</td>
<td>HSE</td>
<td>Immediate</td>
</tr>
<tr>
<td>Theft of any quantity of radioactive substance</td>
<td>Police</td>
<td>Immediate</td>
</tr>
<tr>
<td>Loss of any quantity of radioactive substance</td>
<td>EA</td>
<td>24 hours</td>
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<tr>
<td>Loss of control in a radioactive substance process</td>
<td>EA</td>
<td>24 hours</td>
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</table>

12.4 Incident investigations and their resulting action plans will be carried out under the supervision of the Radiation Protection Committee.

12.5 Incident statistics, trends and reports of significant individual incidents are reviewed by the Radiation Protection Committee at its routine meetings.

13 Consultation

13.1 In the production of this document, the following have been consulted:
- Radiation Protection Group
- Radiography Staff
- Radiation Protection Adviser
- Medical Physics Experts

14 Training

14.1 This Safe Use of Ionising Radiation Policy has a mandatory training requirement which is detailed in the Trusts mandatory training matrix and is reviewed on a yearly basis.

14.2 The Trust will ensure that all employees concerned with the application or use of ionising radiations shall be appropriately qualified or have received relevant training.

14.3 UK and European trained clinicians should have IRMER training as part of their medical course. Those trained overseas will need to demonstrate an awareness of UK legislation or undertake local training once appointed. This training will be documented in Personnel records and collated centrally.

15 Monitoring Compliance and Effectiveness

15.1 The professional advisers will assist the Trust to monitor compliance with statutory regulations in respect of the management and practical arrangements for radiation safety; radiation safety checks of equipment; radiological assessment of new techniques or installations; exposure of staff, general public and patients to ionising radiation; radiation incidents. The professional advisers will report to the Radiation Protection Committee and other relevant committees on matters concerning radiation safety.

15.2 The Workforce Director of the Trust and equivalent within the Approved organisations will make arrangements to ensure that all employees, upon taking up their appointment or additional duties and acting as a “Practitioner” or “Operator”, can provide documented evidence of the training received and qualifications gained relevant to the use of ionising radiations within the requirements of the post. Those employees administering radiopharmaceuticals to humans will be required to hold the relevant licence(s) issued by the Department of Health and Social Care (Administration of Radioactive Substances Advisory Committee).

15.3 The RPA and/or Head of Diagnostic Imaging will make arrangements for the annual audit of relevant records maintained within Departments and report to Quality Risk and Patient Safety committee on compliance.
16 Links to other Organisational Documents
New Clinical Procedure, Intervention or Technique or an Expanded Practice Policy

17 References

1. The Ionising Radiations Regulations 2017

2. The Ionising Radiation (Medical Exposure) Regulations 2017

3. The Environmental Permitting (England & Wales) Regulations 2016

4. The Justification of Practices Involving Ionising Radiation Regulations 2004

   https://www.hse.gov.uk/pubns/books/l121.htm

6. THE JUSTIFICATION OF PRACTICES INVOLVING IONISING RADIATION REGULATIONS 2004 Guidance on their application and administration, 2019, Department for Business, Energy & Industrial Strategy
Circumstances when expert advisers must be consulted

A Radiation Protection Adviser (RPA) must be consulted regarding:

a) Determining requirements for new controlled radiation areas
b) The prior examination of plans for installation and acceptance of new radiation equipment or facilities
c) The regular calibration, inspection and servicing of equipment used to monitor levels of radiation
d) The periodic examination of systems to restrict radiation exposure to staff and the public

The RPA should also be consulted regarding any of the following:

e) optimisation and establishment of appropriate dose constraints;
f) plans for new installations and the acceptance into service of new or modified radiation sources in relation to any engineering controls, design features, safety features and warning devices relevant to radiation protection;
g) categorisation of controlled and supervised areas;
h) classification of workers;
i) outside workers;
j) PPE;
k) workplace and individual monitoring programmes and related personal dosimetry;
l) appropriate radiation monitoring instrumentation;
m) quality assurance;
n) arrangements for prevention of accidents and incidents;
o) training, including retraining programmes for exposed workers;
p) investigation and analysis of accidents and incidents and appropriate remedial actions;
q) employment conditions for pregnant and breastfeeding workers;
r) preparation of appropriate documentation, such as prior risk assessments and written procedures.

A Medical Physics Expert (MPE) must:

a) be closely involved in every radiotherapeutic practice other than standardised therapeutic nuclear medicine practices;
b) be involved in practices including standardised therapeutic nuclear medicine practices, diagnostic nuclear medicine practices and high dose interventional radiology and high dose computed tomography;
c) be involved as appropriate for consultation on optimisation, in all other radiological practices not mentioned in sub-paragraphs (b) and (c); and

d) give advice on:
   • dosimetry and quality assurance matters relating to radiation protection concerning exposures
   • physical measurements for the evaluation of dose delivered
   • medical radiological equipment
A MPE **should** also contribute to the following matters:

e) optimisation of the radiation protection of patients and other individuals subject to exposures, including the application and use of diagnostic reference levels;

f) the definition and performance of quality assurance of the equipment;

g) acceptance testing of equipment;

h) the preparation of technical specifications for equipment and installation design;

i) the surveillance of medical radiological installations;

j) the analysis of events involving, or potentially involving, accidental or unintended exposures;

k) the selection of equipment required to perform radiation protection measurements;

l) the training of practitioners and other staff in relevant aspects of radiation protection;

m) the provision of advice to an employer relating to compliance with IRMER regulations.
**Duties of Radiation Protection Supervisor (RPS)**

This set of duties should be provided to RPSs on appointment.

Radiation Protection Supervisors are responsible for monitoring and enforcing ionising radiation safety within their jurisdiction and shall attend meetings and training courses as appropriate. They will initiate and maintain Local Rules and ‘systems of work’ in liaison with relevant expert advisers, and will ensure compliance with these by:

- Informing the RPA if they consider that the existing Local Rules need amending.
- Informing relevant expert advisers as soon as possible in the event of an incident occurring.
- Bringing the Local Rules to the attention of all staff and visitors working in the controlled area and obtaining confirmation that they have read the Local Rules and understood what actions they should take to keep themselves and others safe.
- Liaising with department leads/managers and relevant expert advisers to ensure all staff working in the vicinity of a controlled area have received appropriate safety training, e.g. awareness training.

In addition, RPS will assist in the management of ionising radiation safety in their area by:

- Notifying the relevant expert advisers of any planned changes to the controlled area environment, ionising radiation equipment or clinical applications being used.
- Assisting in the carrying out of risk assessments.
- Assisting relevant expert advisers in the investigation of incidents and high occupational doses.
- Keeping adequate records in relation to radiation safety for the purposes of audit and inspection.
- Informing their manager if they intend to relinquish their RPS role.

The following tasks may be allocated to an RPS or to another person in the department:

- Making regular checks that engineering and administrative controls are in place and effective.
- Making regular checks of personal protective equipment.
- To coordinate occupational dosimetry for monitored staff.
Appendix C

Financial and Resourcing Impact Assessment on Policy Implementation

NB this form must be completed where the introduction of this policy will have either a positive or negative impact on resources. Therefore this form should not be completed where the resources are already deployed and the introduction of this policy will have no further resourcing impact.

<table>
<thead>
<tr>
<th>Document title</th>
<th>Ionising Radiation Policy</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Totals</th>
<th>WTE</th>
<th>Recurring £</th>
<th>Non Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manpower Costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment &amp; Provision of resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of Impact:

Risk Management Issues:

Benefits / Savings to the organisation:

Equality Impact Assessment

- Has this been appropriately carried out? YES/NO
- Are there any reported equality issues? YES/NO

If “YES” please specify:

Use additional sheets if necessary.
Please include all associated costs where an impact on implementing this policy has been considered. A checklist is included for guidance but is not comprehensive so please ensure you have thought through the impact on staffing, training and equipment carefully and that ALL aspects are covered.

<table>
<thead>
<tr>
<th>Manpower</th>
<th>WTE</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational running costs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Totals:**

<table>
<thead>
<tr>
<th>Staff Training Impact</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Totals:**

<table>
<thead>
<tr>
<th>Equipment and Provision of Resources</th>
<th>Recurring £</th>
<th>Non-Recurring £</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation / facilities needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building alterations (extensions/new)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT Hardware / software / licences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stationery / publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities e.g. telephones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolling replacement of equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment maintenance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing – booklets/posters/handouts, etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Totals:**

- Capital implications £5,000 with life expectancy of more than one year.

Funding / costs checked & agreed by finance:

Signature & date of financial accountant:

Funding / costs have been agreed and are in place:

Signature of appropriate Executive or Associate Director:
### Equality Impact Assessment (EIA) Screening Tool

<table>
<thead>
<tr>
<th>Document Title:</th>
<th>Ionising Radiation Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of document</td>
<td>The purpose of this document is to ensure that the Trust complies with its legal duties to protect staff, patients and the public from Ionising Radiation. It will do this through the three key principles of radiation safety:</td>
</tr>
<tr>
<td>Target Audience</td>
<td>See Roles and Responsibilities on Page 6</td>
</tr>
<tr>
<td>Person or Committee undertaken the Equality Impact Assessment</td>
<td>Diagnostic Imaging IT Systems Lead/Radiographer Practitioner</td>
</tr>
</tbody>
</table>

1. To be completed and attached to all procedural/policy documents created within individual services.

2. Does the document have, or have the potential to deliver differential outcomes or affect in an adverse way any of the groups listed below? If no confirm underneath in relevant section the data and/or research which provides evidence e.g. JSNA, Workforce Profile, Quality Improvement Framework, Commissioning Intentions, etc.

If yes please detail underneath in relevant section and provide priority rating and determine if full EIA is required.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian or Asian British People</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Black or Black British People</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Chinese people</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>People of Mixed Race</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>White people (including Irish people)</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sexual Orientation</th>
<th>Positive Impact</th>
<th>Negative Impact</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transgender</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Lesbian, Gay men and bisexual</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Children</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Older People (60+)</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Younger People (17 to 25 yrs.)</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Faith Group</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Pregnancy &amp; Maternity</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Equal Opportunities and/or improved relations</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
Faith groups cover a wide range of groupings, the most common of which are Buddhist, Christian, Hindus, Jews, Muslims and Sikhs. Consider faith categories individually and collectively when considering positive and negative impacts.

The categories used in the race section refer to those used in the 2001 Census. Consideration should be given to the specific communities within the broad categories such as Bangladeshi people and the needs of other communities that do not appear as separate categories in the Census, for example, Polish.

3. Level of Impact

<table>
<thead>
<tr>
<th>If you have indicated that there is a negative impact, is that impact:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal (it is not discriminatory under anti-discriminatory law)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intended</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the negative impact is possibly discriminatory and not intended and/or of high impact then please complete a thorough assessment after completing the rest of this form.

3.1 Could you minimise or remove any negative impact that is of low significance? Explain how below:

3.2 Could you improve the strategy, function or policy positive impact? Explain how below:

3.3 If there is no evidence that this strategy, function or policy promotes equality of opportunity or improves relations – could it be adapted so it does? How? If not why not?

<table>
<thead>
<tr>
<th>Scheduled for Full Impact Assessment</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of persons/group completing the full assessment.</td>
<td></td>
</tr>
<tr>
<td>Date Initial Screening completed</td>
<td></td>
</tr>
</tbody>
</table>