

Radon Management Policy

Issue Date	Review Date	Version
December 2018	December 2023	1

Purpose

The purpose of this policy is to ensure that risk associated with radon gas is appropriately mitigated. It sets out the roles and responsibilities and outlines the operational arrangements for monitoring and managing radon in the workplace.

Who should read this document?

Health and Safety Team

Key Messages

The Management of Health and Safety at Work Regulations 1999 require the assessment of health and safety risks and this should include radon if a workplace is located underground or in a radon Affected Area. The UK Radon map (updated by PHE) clearly identifies Plymouth and the surrounding area as a radon affected area.

Core accountabilities

Owner	Radiation Safety Committee
Review	Radiation Safety Committee
Ratification	Phil Hughes
Dissemination (Raising Awareness)	Radiation Safety Committee
Compliance	Radiation Safety Committee

Links to other policies and procedures

Radon Monitoring Procedure
 Ionising Radiation Safety Policy
 Health and Safety Policy

Version History

1	December 2018	Amended following the introduction of new regulations (Ionising Radiations Regulations 2017). Amended location approval and review following inclusion into the Trust's Radiation Safety Policy.
1	January 2019	Approved and ratified at Radiation Safety Committee.

The Trust is committed to creating a fully inclusive and accessible service. Making equality and diversity an integral part of the business will enable us to enhance the services we deliver and better meet the needs of patients and staff. We will treat people with dignity and respect, promote equality and diversity and eliminate all forms of discrimination, regardless of (but not limited to) age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage/civil partnership and pregnancy/maternity.

**An electronic version of this document is available on Trust Documents.
Larger text, Braille and Audio versions can be made available upon
request.**

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1 Introduction

The purpose of this policy is to ensure that risk associated with radon gas is appropriately mitigated. It sets out the roles and responsibilities and outlines the operational arrangements for monitoring and managing radon in the workplace.

2 Purpose

- 2.1 This policy covers all premises owned, occupied, administered, or operated by the University Hospitals Plymouth NHS Trust.
- 2.2 This policy should be read in conjunction with the Radon Monitoring Procedure.

3 Definitions

- 3.1 The radioactive gas radon is a hazard in many homes and workplaces. Breathing in Radon gas increases the risk of lung cancer and causes over 1,100 deaths from lung cancer each year in the UK. The risks from radon is higher if the person is an ex-smoker and significantly greater for current smokers. Approximately half of the background radiation exposure (all sources) to the UK population arises from the inhalation of radon gas.¹
- 3.2 Radon is a naturally occurring radioactive gas that can seep out of the ground and build up in houses and indoor workplaces.
- 3.3 The UK has been extensively surveyed by Public Health England (formally the Health Protection Agency) and British Geological Survey, and the Indicative Atlas of Radon in England and Wales shows that Plymouth is a radon affected area. Public Health England defines radon affected areas as those with 1% probability or more of a home having radon above the action level.
- 3.4 The risk to staff of exposure to radon will depend on the level of radon in the workplace and the length of time staff spend in the location.
- 3.5 The Action Level for radon in the workplace is 300 Becquerel per cubic metre (Bq/m^3) as an annual average. For residential accommodation, the Action Level is 200 Bq/m^3 (annual average).
- 3.6 The Ionising Radiations Regulations 2017 requires the Employer to notify the Health and Safety Executive of work carried out in an atmosphere of radon 222 gas at an annual average concentration in air exceeding 300 Bq/m^3 .

4 Duties

4.1 Chief Executive

Chief Executive for Plymouth Hospitals NHS Trust has ultimate responsibility for Health and Safety within the organisation.

4.2 Executive Directors

The Executive Directors are responsible through the Chief Executive for the Health and Safety at work of all staff within their sphere of control. The Director with responsibilities for health and safety must ensure that an on-going monitoring programme is in place as part of the Trust's corporate responsibilities.

4.4 Director of Estates and Facilities

The Head of Estates Operations has responsibility to:

- a) ensure that a suitable and sufficient risk assessment, which includes the measurement of radon levels, is carried out for all Trust premises where there are ground floor and underground workplaces. This should include areas partially underground or partially at ground level, noting that many of the Trusts estates are built on a slope.
- b) Responsibility for remedial works required when radon gas is found within buildings at a level considered hazardous to health;
- c) Notify (seeking the advice of the Trust's appointed RPA) work in areas annual average concentrations of radon-222 gas exceeding 300Bq/m³ to the Health and Safety Executive.
- d) ensure regular inspection and maintenance of all engineering systems provided for maintaining radon concentrations at safe levels;
- e) ensure that an up to date radon register is maintained, including a record of all protective measures undertaken to reduce concentration;
- f) present an annual progress report to the Radiation Safety Committee;
- g) the development and implementation of this policy.

4.5 Project Managers

Project managers are responsible for:

- a) ensuring that protective measures are installed during construction where necessary and that an on-going programme of monitoring is arranged through the Head of Estates Operations;
- b) and consulting the Radon Register prior to the initiation of building refurbishment programmes and liaising with the Radiation Protection Advisor and the Head of Estates Operations to ensure that appropriate precautions are taken where radon concentrations are known to exceed the action level.

4.6 Property Manager

The Property Manager is responsible for:

- a) ensuring that prior to staff moving into a leased building, radon levels are monitored and managed by the owner/landlord.
- b) notifying the Head of Estates Operations of buildings that must be added to or removed from the Radon Register.

4.7 Radiation Protection Advisor

The Radiation Protection Advisor is responsible for advising the Trust on compliance with the requirements of the Ionising Radiation Regulations 2017 which includes interpreting measurements to determine workplace exposure to radon

(IRR2017) and provide information and guidance to staff working in areas that have radon concentrations that exceed the recognised Action Levels.

4.8 Radiation Safety Committee

The Trust Radiation Safety Committee will:

- a) review this policy and where appropriate recommend it to the Audit Committee for approval by the Trust Board;
- b) ensure that this policy remains current;
- c) monitor compliance with this policy.

4.9 Operational Arrangements

4.9.1 Measuring and Monitoring Radon Levels

4.9.2 The measurement of radon levels in Trust Premises will be carried out in accordance with the Radon Monitoring Procedure.

4.9.3 As part of the on-going monitoring procedure, measurements will be repeated at 10 year intervals in areas with low levels of radon.

4.9.4 Where annual average radon levels are initially found to be between 200 and 300Bq/m³ (100 to 200 Bq/m³ for residences), and in areas where protective measures have been put in place to control radon concentrations, measurements will be undertaken every 3 years.

4.9.5 Trust premises which need to be considered as having an annual average action Level of 200 Bq/m³ also include residences, supported domestic homes, recovery services, and children's respite units.

4.9.6 Protective Measures

4.9.7 The Estates Department will carry out remedial work to ensure protective measures are in place where annual average radon levels are found to be above 300 Bq/m³ or above 200 Bq/m³ in Trust residential premises as defined above.

4.9.8 Where occupied workplace measurements show annual average radon levels above 300Bq/m³, UHPT may need to take immediate steps to manage occupational exposure pending any decision to reduce radon levels by engineered means. Advice must be sought from the Trust RPA who will advise on the steps taken to comply with the Ionising Radiations Regulations 2017.

4.9.9 In rare cases it may be necessary to identify some areas as "controlled radiation areas" as defined by IRR2017 following a radiation risk assessment (or review of). The aim of the risk assessment is to identify appropriate controls ensuring occupational exposures (in this case from exposure to radon gas) are restricted As Low As Reasonably Practicable (ALARP). The RPA must be consulted.

5 Key Elements (determined from guidance, template, exemplars etc.)

The Health and Safety at Work Act 1974 states that employers must so far as is reasonable practicable, ensure the Health, Safety and Welfare of employees and others who have access to their work environment.

The Management of Health and Safety at Work Regulations 1999 require the assessment of health and safety risks and this should include radon if a workplace is located underground or in a radon affected area.

The Ionising Radiations Regulations 2017 comes into effect where annual average Radon is present above the action level of 300 Bq/m³ and employers are required to take action to restrict resulting exposures.

The Building Regulations 2004 (England, includes 2010 and 2013 amendments) require new buildings and buildings extensions (workplaces and dwellings) constructed after 2000 in radon affected areas to have protective measures installed during construction.

6 Overall Responsibility for the Document

The Head of Clinical Records and Knowledge Services/Document Controller is responsible for holding and maintaining a master file containing a register and signed copies of the policies, and corresponding Equality Impact Assessments.

The Head of Clinical Records and Knowledge Services/Document Controller is also responsible for maintaining an archive master file for all prior issues of Trust policies.

The Head of Clinical Records & Knowledge Services/Document Controller issues all policy numbers and maintaining an index that will include the document's title, policy number and issue, owner, issue date, and next review date.

7 Consultation and Ratification

The design and process of review and revision of this policy will comply with The Development and Management of Formal Documents.

The review period for this document is set as default of five years from the date it was last ratified, or earlier if developments within or external to the Trust indicate the need for a significant revision to the procedures described.

This document will be reviewed by the Health and Safety Committee and ratified by the Director of Planning and Site Services.

Non-significant amendments to this document may be made, under delegated authority from the Director of Planning and Site Services, by the nominated owner. These must be ratified by the Director of Planning and Site Services and should be reported, retrospectively to the Health and Safety Committee.

Significant reviews and revisions to this document will include a consultation with named groups, or grades across the Trust. For non-significant amendments, informal consultation will be restricted to named groups, or grades who are directly affected by the proposed changes.

8 Dissemination and Implementation

Following approval and ratification, this policy will be published in the Trust's formal documents library and all staff will be notified through the Trust's normal notification process, currently the 'Vital Signs' electronic newsletter.

Document control arrangements will be in accordance with The Development and Management of Formal Documents.

The document owner will be responsible for agreeing the training requirements associated with the newly ratified document with the named Director of Planning and Site Services and for working with the Trust's training function, if required, to arrange for the required training to be delivered.

9 Monitoring Compliance and Effectiveness

9.1 Compliance Monitoring

The Radiation Safety Committee will receive annual progress reports from the Head of Estates Operations.

The annual Radon Report will include the following as evidence of:

Compliance:

- an up to date Radon Register and a programme for ensuring that all Trust premises have radon levels measured at the defined intervals;
- a list of non-UHPT properties occupied by UHPT staff that have or require Radon monitoring and management;
- the identification of properties with radon concentrations that exceed the Action Levels and details of protective measures in place;

University Hospitals Plymouth NHS Trust is committed to protecting the health and safety of its employees and others who may be affected by its undertaking.

Therefore the Trust will:

- ensure organisational structures are in place to effectively manage the risks;
- establish and maintain a monitoring programme of all its premises at regular intervals;
- undertake remedial work to address high levels of radon above the action levels;
- ensure specialist advice is available to the Trust from a Radiation Protection Adviser;
- ensure that risk assessments are suitable and sufficient in reducing and controlling the risks of radon in the workplace.

9.2 Policy Review

This policy will be reviewed on an annual basis following the Presentation of the annual radon progress report, or if there is a change in personnel or legislation which requires amendments to be made.

The Trust will undertake a regular audit of the processes specified in this policy. It should be noted that the responsibilities in this policy are legally enforceable and that managers (and employees where applicable) failing to uphold their responsibilities may find themselves.

10 References and Associated Documentation

- Public Health England (**UKradon**) Website accessed 12/12/2018
- <https://www.ukradon.org/> (hosts UK radon map and other information regarding radon)
- Health and Safety Executive (Radon in the Workplace) Website accessed 12/12/2018
- <http://www.hse.gov.uk/radiation/ionising/radon.htm#legalrequirements>
- Statutory Instrument 217 No 1075 “The Ionising Radiations Regulations 2017”

Dissemination Plan and Review Checklist

Appendix 1

Dissemination Plan			
Document Title	Radon Management Policy		
Date Finalised			
Previous Documents			
Action to retrieve old copies			
Dissemination Plan			
Recipient(s)	When	How	Responsibility
All Trust staff		Vital Signs	Information Governance Team
Site Services, Planning, IM&T		Policy will be e-mailed to staff in these departments and then they will be asked to sign a register stating that they have read and understand the contents of the policy.	
Health and Safety Committee		As above	
Radiation Protection Committee		As Above	

Review Checklist		
Title	Is the title clear and unambiguous?	
	Is it clear whether the document is a policy, procedure, protocol, framework, APN or SOP?	Yes
	Does the style & format comply?	Yes
Rationale	Are reasons for development of the document stated?	Yes
Development Process	Is the method described in brief?	Yes
	Are people involved in the development identified?	Yes
	Has a reasonable attempt has been made to ensure relevant expertise has been used?	Yes
	Is there evidence of consultation with stakeholders and users?	No
Content	Is the objective of the document clear?	Yes
	Is the target population clear and unambiguous?	Yes
	Are the intended outcomes described?	Yes
	Are the statements clear and unambiguous?	Yes
Evidence Base	Is the type of evidence to support the document identified explicitly?	Yes
	Are key references cited and in full?	Yes
	Are supporting documents referenced?	Yes
Approval	Does the document identify which committee/group will review it?	Yes
	If appropriate have the joint Human Resources/staff side committee (or equivalent) approved the document?	Yes
	Does the document identify which Executive Director will ratify it?	Yes
Dissemination & Implementation	Is there an outline/plan to identify how this will be done?	Yes
	Does the plan include the necessary training/support to ensure compliance?	Yes
Document Control	Does the document identify where it will be held?	Yes
	Have archiving arrangements for superseded documents been addressed?	N/A
Monitoring Compliance & Effectiveness	Are there measurable standards or KPIs to support the monitoring of compliance with and effectiveness of the document?	Yes
	Is there a plan to review or audit compliance with the document?	Yes
Review Date	Is the review date identified?	Yes
	Is the frequency of review identified? If so is it acceptable?	Yes
Overall Responsibility	Is it clear who will be responsible for co-ordinating the dissemination, implementation and review of the document?	Yes

Core Information	
Date	30 th January 2019
Title	Radon Management Policy
What are the aims, objectives & projected outcomes?	The purpose of this policy is to ensure that risk associated with radon gas is appropriately mitigated. It sets out the roles and responsibilities and outlines the operational arrangements for monitoring and managing radon in the workplace.
Scope of the assessment	
Radon Management Policy for Trustwide coverage	
Collecting data	
Race	No
Religion	No
Disability	No
Sex	No
Gender Identity	No
Sexual Orientation	No
Age	No
Socio-Economic	No
Human Rights	No
What are the overall trends/patterns in the above data?	N/A
Specific issues and data gaps that may need to be addressed through consultation or further research	N/A

Involving and consulting stakeholders				
Internal involvement and consultation	Members of the Radiation Safety Committee Director of Planning and Site Services			
External involvement and consultation	N/A			
Impact Assessment				
Overall assessment and analysis of the evidence	This assessment has shown that there could be an impact on race or disability groups. However, this document can be made available in other formats and languages if requested. The document does not have the potential to cause unlawful discrimination. The document does not have any negative impact.			
Action Plan				
Action	Owner	Risks	Completion Date	Progress update
Provide document in alternative language and formats if requested	Head of Information Governance	Potential cost impact	Ongoing	This action will be addressed as and when the need occurs.