

Policy Under Review

Please note that this policy is under review. It does, however, remain current Trust policy subject to any recent legislative changes, national policy instruction (NHS or Department of Health), or Trust Board decision. For guidance, please contact the Author/Owner.

Information Category	Detailed Information
Document Title:	Radon Management Policy V4.0
This document replaces (exact title of previous version):	Radon Policy V3.0
Date Issued / Approved:	August 2022
Date Valid From:	September 2022
Date Valid To:	March 2026
Author / Owner:	Trevelyan Foy, Radiation Protection Adviser
Contact details:	01872 252495
Brief summary of contents:	This policy describes the measures taken by the Trust to assess the potential risks posed by radon gas to employees in premises in which the organisation's staff work and the measures to manage radon affected premises
Suggested Keywords:	Radon, Radiation
Target Audience:	RCHT: Yes CFT: No CIOB ICB: No
Executive Director responsible for Policy:	Chief Medical Officer
Approval route for consultation and ratification:	Radiation Protection Advisory Committee
Manager confirming approval processes:	Richard Andrzejuk

Information Category	Detailed Information
Name of Governance Lead confirming consultation and ratification:	Kevin Wright
Links to key external standards:	Ionising Radiations Regulations
Related Documents:	Ionising Radiations Regulations
Training Need Identified:	No
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet
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This document is only valid on the day of printing.

Controlled Document.

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UNDER REVIEW

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Radon Management Policy

V4.0

September 2022

Summary

Scope

- All premises for which the organisation has maintenance responsibility will have radon measurements taken and, where identified as radon affected, control measures will be put in place. In addition, the organisation will ensure that we receive information regarding radon monitoring undertaken by other organisations / landlords in relation to buildings where our employees work to be assured that risks have been adequately assessed / managed. Where staff are home working, we will promote radon awareness and offer monitoring to those staff.

Monitoring Programme

- A planned programme of radon monitoring at all sites will be co-ordinated by the estates service (in conjunction with landlords where applicable). Monitoring frequencies will take account of previous radon monitoring results and advice from the Radiation Protection Adviser.

Risk Assessments & Remedial Actions

- Following radon monitoring, areas in excess of the action level will be risk assessed. The assessment shall outline controls and actions required, including those for safe use of the building until remedial works can be undertaken.

Radon Records

- Estates will maintain a record of monitoring, results and supporting risk assessment documentation and of remedial actions. This documentation will be held in perpetuity for radon affected premises.

Monitoring Compliance & Effectiveness

- The radon monitoring programme/actions in respect of radon affected premises will be reviewed by the estates service, supported by the RPA, on an annual basis. Reports will be provided to the Radiation Protection Committee.

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Data Protection Act 2018 (General Data Protection Regulation – GDPR) Legislation

The Trust has a duty under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team

Royal Cornwall Hospital Trust rch-tr.infogov@nhs.net

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1. Introduction

- 1.1. This policy describes the measures taken by the Trust to assess the potential risks posed by radon gas to employees in premises in which the organisation's staff work and the measures to manage radon affected premises.
- 1.2. This version supersedes any previous versions of this document.

2. Purpose of this Policy/Procedure

- 2.1. Radon is a colourless, odourless radioactive gas. It comes from the radioactive decay of radium, which in turn comes from the radioactive decay of uranium. Uranium acts as a permanent source of radon and is found in small quantities in all soils and rocks, although the amount varies from place to place.
- 2.2. Radon in the soil and rocks mixes with air and rises to the surface where it is quickly diluted in the atmosphere. Concentrations in the open air are very low. However, radon that enters enclosed spaces, such as buildings, can reach relatively high concentrations in some circumstances. Radon is particularly prevalent in granite areas but not exclusively so. Radon levels vary not only between different parts of the country but even between neighbouring buildings.
- 2.3. The UK has been extensively surveyed by the UK Health Security Agency (previously known as Public Health England, Health Protection Agency, National Radiological Protection Board) and British Geological Survey and the Indicative Atlas of Radon in England and Wales shows that Cornwall is a heavily Radon Affected Area. The Health Protection Agency defines Radon Affected Areas as those with 1% probability or more of a home having radon above the Action Level.
- 2.4. Radon poses a health risk to humans; cumulative exposure increases an individual's risk of lung cancer.
- 2.5. The Health and Safety at Work Et Cetera Act 1974/Ionising Radiations Regulations 2017/Management of Health and Safety at Work Regulations 1999 establish a legal requirement to assess the risks from radon. The Ionising Radiations Regulations prescribe an 'action level' above which the employer must take action.

3. Scope

- 3.1. All premises for which the organisation has maintenance responsibility: will have radon measurements taken and, where identified as radon affected, appropriate control measures will be put in place.
- 3.2. In addition, this policy will demonstrate how the organisation will ensure that it receives appropriate information regarding radon monitoring undertaken by other organisations / landlords in buildings where our employees are working in order to be assured that the risks have been adequately assessed/managed.
- 3.3. In relation to home working, the Trust will promote radon awareness amongst home working staff and offer them monitoring to determine whether the premises are above the action level.

4. Definitions / Glossary

- 4.1. **The Employer** is Royal Cornwall Hospitals NHS Trust; for legal purposes the Chief Executive is identified as the accountable officer.
- 4.2. **Radiation Protection Adviser (RPA)** is defined by the Ionising Radiation Regulations 2017 (IRR17) as an individual who is accredited as meeting the criteria of competence specified by the Health and Safety Executive (HSE) and appointed to advise the employer on the matters required by the regulations. **Becquerel per cubic metre (Bq/m³)** is the unit in which radon concentrations, more colloquially referred to as 'radon levels', are measured.
- 4.3. **Controlled Area:** is an area designated under IRR17, access is restricted and/or the work activity is limited and/or supervised.
- 4.4. **Ionising Radiations Regulations 2017 (IRR17):** regulations which govern work with radiation.
- 4.5. **Action level:** Action level is the radon concentration at which the Ionising Radiations Regulations 2017 become applicable, requiring the Employer to take action. The current action level (as of January 2018) is an annual average concentration of 300 Bq/m³. Prior to January 2018 an action level of 400 Bq/m³ averaged over any 24 hours was applicable.

5. Ownership and Responsibilities

5.1. Role of the Employer

- 5.1.1. The Employer has a legal duty to ensure the health, safety and welfare of employees and others who have access to that working environment.
- 5.1.2. The Employer must ensure the risks to staff and the public arising from radon exposure during work in premises are assessed and, for premises in excess of the defined action level, measures are taken to control radon exposure (usually by remedial work to reduce radon levels).

5.2. Role of the Radiation Protection Adviser

- 5.2.1. Provide specialist advice on radiation protection to assist the employer in compliance with the requirements of the IRR17.
- 5.2.2. Assist with the planning and implementation of a programme of radon monitoring and will report and liaise with relevant Landlords / the organisation on remedial action.
- 5.2.3. Interpret radon measurements to determine workplace exposure to radon.

5.3. Role of Occupational Health Department

Will provide information, support and guidance to employees working in areas that have radon concentrations that exceed the recognised action levels.

5.4. Role of the Estates Service (or 3rd party landlords/property owners, where relevant)

- 5.4.1. Will undertake a programme of radon monitoring in premises occupied by the organisation's staff.
- 5.4.2. Will arrange to implement any necessary remedial work where radon levels have been identified as above the action level.
- 5.4.3. Will undertake planned maintenance of remediation systems and ensure re-monitoring is undertaken following remedial work to ensure systems installed are and remain effective.
- 5.4.4. Will liaise with the RPA following receipt of results to ensure the safety of employees.
- 5.4.5. Will liaise with Landlords to ensure that there is adequate assurance that radon monitoring/risk assessment has been carried out on non-RCHT premises where Trust staff work.
- 5.4.6. Will assist with risk assessments where necessary. Will maintain a database of sites affected by radon and a record of remediation systems installed.
- 5.4.7. Will liaise with Landlords when re-monitoring dates are approaching to ensure required actions are carried out.
- 5.4.8. Will liaise with Landlords regarding the progression of any remedial works to premises
- 5.4.9. Will maintain records of radon monitoring of premises in perpetuity.

5.5. Role of the Managers

- 5.5.1. Line managers will facilitate access to areas for the placement and recovery of radon monitors and other such site visits as may be appropriate.
- 5.5.2. For radon affected premises, line managers will be supplied with information by the Radiation Protection Adviser and, in the first instance, speak with any staff expressing concerns.
- 5.5.3. Line managers will ensure that, where remediation systems are installed, any failure of these systems (e.g. indicated by audio/visual alarm) is promptly reported to the estates department.

5.6. Role of the Radiation Protection Committee

- 5.6.1. The Radiation Protection Committee will receive reports from the Radiation Protection Adviser and estates service as may be required, regarding the level of the Trust's compliance with the law and this policy with regard to management of radon.

- 5.6.2. The Radiation Protection Committee will advise Trust management of any concerns which, in the view of the committee, require escalation.

6. Standards and Practice: Monitoring and Assessment of Radon

6.1. Surveying and Sampling

Indoor radon levels can fluctuate from season to season, from day to day and by the hour and it is recommended that monitoring radon levels should be over a prolonged period of time to establish accurate readings. This can be achieved very simply and cost effectively by using passive detectors for a period of three months.

6.2. Radon Monitoring Programme

- 6.2.1. A planned programme of radon monitoring at all sites is to be implemented. This programme will take into account an appropriate time scale for each property as determined by HSE/UKHSA guidance and previous radon monitoring results in conjunction with advice from the Radiation Protection Adviser.
- 6.2.2. Sites will be re-monitored in accordance with the table below

Radon Result (Bq/m ³)		Occupancy / Usage	Interval
Estimated Winter Maximum Level (measurements prior to 2018)	Estimated Annual Average Level (measurements after Jan 2018)		
Greater than 300 but less than 400	Greater than 200 but less than 300	Occupied by any full time staff (5 days per week)	3 yearly
		Occupied by part time staff only (4 days per week or less)	5 yearly, or sooner if change in occupancy identified
		Any rooms where change of use to full occupancy is likely/probable (e.g. staff rooms, store rooms etc which may become offices) or use (e.g. storeroom becomes office)	5 yearly, or sooner if change in occupancy identified
		Store Rooms, Plant Rooms, other areas of low occupancy (and unlikely to increase)	10 yearly

6.2.3. Planned periodic monitoring should be conducted in winter (November – February) when radon concentrations are highest. Periodic monitoring in summer is to be avoided as this involves the use of large correction factors on smaller detector readings to estimate annual average levels, which increases the uncertainty in the results obtained.

6.3. Risk Assessments and Remedial Actions

- 6.3.1. Following radon monitoring, risk assessments will be undertaken in areas which are in excess of the action level (annual average of 300 Bq/m³). The assessment should outline controls and actions for the safe use of the building until remedial works can be undertaken.
- 6.3.2. Although not enforced in law, for domestic premises an action level of 200 Bq/m³ annual average level exists. When reviewing monitoring data, it will be identified if there are areas of protracted public occupancy (e.g. occupancy >> 3 months), if so then a formal risk assessment may be required.

6.4. Radon Records

Estates will maintain a record of monitoring, results and supporting risk assessment documentation and remedial actions. This documentation will be held in perpetuity for radon affected premises.

7. Dissemination and Implementation

7.1. Upon ratification, this policy shall be disseminated by the Trust Document Library.

7.2. Changes in policy will be discussed by the Head of Estates/RPA with relevant estates staff.

8. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	Monitoring Programme / Actions in respect of radon affected premises.
Lead	Head of Estates / Radiation Protection Adviser
Tool	Monitoring of premises in accordance with schedule
Frequency	Annually
Reporting arrangements	Reporting to Radiation Protection Committee
Acting on recommendations and Lead(s)	Head of Estates is accountable. The RPA will monitor progress.
Change in practice and lessons to be shared	The Radiation Protection Adviser will monitor the effectiveness of the implementation of this policy and any regulatory changes on an on-going basis.

9. Updating and Review

9.1. This policy will be updated 3 yearly or earlier (e.g. as may be requested by the Radiation Protection Committee, Head of Estates, Radiation Protection Adviser).

9.2. The Document approval route will be via the Radiation Protection Committee.

10. Equality and Diversity

10.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the ['Equality, Inclusion & Human Rights Policy'](#) or the [Equality and Diversity website](#).

10.2. The Initial Equality Impact Assessment Screening Form is at Appendix 2.

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Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Radon Management Policy V4.0
This document replaces (exact title of previous version):	Radon Policy V3.0
Date Issued/Approved:	August 2022
Date Valid From:	September 2022
Date Valid To:	September 2025
Directorate / Department responsible (author/owner):	Trevelyan Foy, Radiation Protection Adviser
Contact details:	01872 252495
Brief summary of contents:	This policy describes the measures taken by the Trust to assess the potential risks posed by radon gas to employees in premises in which the organisation's staff work and the measures to manage radon affected premises
Suggested Keywords:	Radon, Radiation
Target Audience:	RCHT: CFT: KCCG:
Executive Director responsible for Policy:	Medical Director
Approval route for consultation and ratification:	Radiation Protection Advisory Committee
General Manager confirming approval processes:	Richard Andrzejuk
Name of Governance Lead confirming approval by specialty and care group management meetings:	Kevin Wright
Links to key external standards:	Ionising Radiations Regulations
Related Documents:	Ionising Radiations Regulations
Training Need Identified?	No

Information Category	Detailed Information
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet & Intranet
Document Library Folder/Sub Folder:	Clinical / Medical Physics

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by
March 2012	V1.0	Initial Issue	Richard Cranage
20 May 2015	V2.0	Updating of policy to current template format.	Trevelyan Foy Radiation Protection Adviser
10 April 2019	V3.0	Updating of policy to current template format and updating text to reflect new action levels.	Trevelyan Foy Radiation Protection Adviser
18 August 2022	V4.0	Minor update and inclusion of reference to home working	Trevelyan Foy Radiation Protection Adviser

All or part of this document can be released under the Freedom of Information Act 2000

**This document is to be retained for 10 years from the date of expiry.
This document is only valid on the day of printing**

Controlled Document

This document has been created following the Royal Cornwall Hospitals NHS Trust Policy for the Development and Management of Knowledge, Procedural and Web Documents (The Policy on Policies). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Equality Impact Assessment Form

Section 1: Equality Impact Assessment (EIA) Form

The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.

For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity & Inclusion Team richt.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy / policy / proposal / service function to be assessed:	Radon Management Policy V4.0
Directorate and service area:	Medical Physics, Clinical Support
Is this a new or existing Policy?	Existing
Name of individual completing EIA (Should be completed by an individual with a good understanding of the Service/Policy):	Trevelyan Foy, Radiation Protection Adviser
Contact details:	Telephone: 01872 252495

Information Category	Detailed Information
1. Policy Aim - Who is the Policy aimed at? (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	Refer to policy section 1
2. Policy Objectives	Refer to policy section 2
3. Policy Intended Outcomes	Refer to policy sections 1 and 2
4. How will you measure each outcome?	Refer to policy sections 6 and 7
5. Who is intended to benefit from the policy?	All persons occupying premises where Trust staff work
6a. Who did you consult with? (Please select Yes or No for each category)	<ul style="list-style-type: none"> • Workforce: Yes • Patients/ visitors: No • Local groups/ system partners: Yes • External organisations: No • Other: No

Information Category	Detailed Information
6b. Please list the individuals/groups who have been consulted about this policy.	Please record specific names of individuals/ groups: Radiation Protection Advisory Committee
6c. What was the outcome of the consultation?	No impacts identified.
6d. Have you used any of the following to assist your assessment?	National or local statistics, audits, activity reports, process maps, complaints, staff or patient surveys: None

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	
Marriage and civil partnership	No	
Pregnancy and maternity	No	
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment:

Trevelyan Foy, Radiation Protection Adviser

If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:

[Section 2. Full Equality Analysis](#)

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