

Bradford Council

Radon Safety

Policy and

Safety

Arrangements

Issued by: Occupational Safety Team

Issue date: July 2024

Review date: July 2026

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1 Introduction

This document sets out the policy and strategy to minimise the risk from exposure to radon and its decay products to employees and persons using Bradford Council buildings.

Radon is a colourless, odourless radioactive gas which originates from uranium that occurs naturally in many rocks and soils and which can seep up from the ground. Most radon gas inhaled is immediately exhaled and presents little hazard.

However, natural radioactive decay within rocks and soils can give rise to higher concentrations of radon gas, attaching themselves to atmospheric dust and water droplets which can be inhaled. Over exposure to higher levels of radon gas can overtime lead to lung damage.

Many areas of England and Wales are affected by radon, where the highest radon concentrations are usually found in underground spaces such as basements, caves, and mines, but high concentrations can also be found on the ground floor of some buildings.

Bradford Council's estate contains areas that are either wholly or partially below ground, and it is the responsibility of the local authority to identify radon affected areas, assess the risk, and implement controls as necessary to ensure the health and safety of its staff, contractors, students, visitors, and members of public.

This document should be used in conjunction with any relevant legislation, Approved Codes of Practice, Health and Safety Executive (HSE) / Public Health England (PHE) guidance and other recognised procedures relating to the presence and management of radon in buildings.

2 Management Policy Statement

It is the policy of Bradford Council, as so far as is reasonably practicable, and in accordance with the relevant statutory requirements and good practice, to ensure the health and safety of staff, contractors, students, visitors, and members of public.

This Policy states the requirements placed on Bradford Council with regards to the identification, assessment, management, and monitoring of radon, as a naturally occurring radioactive gas which can be present in the workplace and its estate.

In addition to those general duties in law, Bradford Council has a specific obligation under the Management of Health and Safety at Work Regulations to assess the risks from radon exposure to their employees. Where premises are underground, or in radon affected areas then indicative measurements of radon gas concentrations are required. If radon concentrations exceed action levels, then the Ionising Radiation Regulations require employers to implement measures to reduce exposure to radon.

Bradford Council will reduce exposure to radon to its lowest levels reasonably practicable by:

- Identifying and monitoring all Bradford Council properties that may be affected by radon.
- Having clear procedures in place for the management of radon in affected buildings.
- Developing and maintaining records of radon gas levels in the Council's premises.
- Maintaining a central database of all records.
- Providing suitable information and advice to employees and other persons likely to be exposed to levels of radon gas in the Council's premises.
- Consulting, where necessary, with a recognised Radiation Protection Adviser (RPA - competent expertise in ionising radiation).

- Ensuring that any remedial measures put in place to reduce the level of radon in a property are monitored and maintained effectively.
- Reviewing the policy, safety arrangements and procedures as required.

2.1 Equality Impact Assessment

This Policy statement and associated Radon Safety guidance should have no detrimental impact on any person with a protected characteristic.

3 Organisational Responsibilities

3.1 Chief Executive (Employer)

Whilst the Chief Executive has overall responsibility for health and safety within the Council the management of radon in Bradford Council properties is delegated to the Strategic Director of Corporate Resources and the Assistant Director Assets and Facilities Management.

Chief Executive will:

- Familiarise themselves with Bradford Council's policy and procedures for managing potential exposure to radon of employees and other persons.
- Ensure through delegated responsibility that the policy and procedures for managing exposure to radon are observed.

3.2 Strategic Director (Responsible Person Radon Safety)

- Ensure so far as is reasonably practicable that a Radon Safety Management System is established and maintained.
- Advise the Chief Executive/CMT/SLT on the resources required to maintain Radon Safety Management within the Authority.
- Ensure effective management systems are in place for the operating procedures for the management of the risk from radon in Council properties.
- The monitoring, remedial installation, maintenance, and record keeping of the identified premises radon levels will be carried out in a manner that maintains a safe working environment for employees and others who occupy the identified premises.
- To appoint an Appointed Person Radon Safety.

3.3 Health, Safety & Wellbeing Manager - (Appointed Person Radon Safety)

- Management of the radon policy and guidance.
- Oversee the strategy for undertaking and monitoring the Bradford Council's premises for radon
- Provide advice and guidance to Strategic Directors
- Where necessary provide information for heads of establishments, premises managers, employees and other people affected
- Where necessary appoint and liaise with a Radiation Protection Adviser
- Implementation of changes to the policy occurring because of a review.
- Ensure that any training undertaken is suitable and appropriate.
- Implementation of radon monitoring surveys.
- Maintain an effective record system.

- Reviewing risk assessments and implementation of measures, when necessary to restrict access to radon affected areas.

3.4 General Responsibilities within Departments and service

3.4.1. Occupational Safety Advisers.

- Provide guidance to Heads of Establishments/Premises Managers as required.
- Audit employees and establishments for compliance with the radon management policy and procedures.
- Where establishments have areas with access restrictions to limit radon exposure, to audit employee's personal exposure records to ensure persons are not exposed to more than their annual allowable dose.
- To liaise, where necessary, with the Appointed Person **(3.3)** on the Council's radon policy, procedures, and personal exposures.

3.4.2. Facilities Managers, Premises/Depot Managers or Building Supervisor

- Where installed, check and record that any mechanical remedial measures to reduce the level of radon in their premises are in operation.
- Where employees are required to keep records of personal exposure to radon, monitor such exposure to ensure the annual allowable dose is not exceeded.
- To liaise, where necessary, with the Appointed Person **(3.3)** on the Council's radon policy, procedures, and personal exposures.

3.4.3. Employees

- Where required will receive the appropriate information, instruction, and training to enable them to comply with any procedures and other control measure that are in place to ensure radon safety is correctly managed within Bradford Council properties.
- To liaise, where necessary, with the Appointed Person **(3.3)** on the Council's radon policy, procedures, and personal exposures.

3.5 Responsibilities for Managing Radon in Bradford Council other Relevant Premises

3.5.1. Bradford Council Corporate Buildings

Bradford Council is responsible through Health, Safety & Wellbeing liaising with Assets & Facilities Management and the management of the establishment.

3.5.2. Local Authority Controlled Schools

Bradford Council is responsible through Health, Safety & Wellbeing liaising with Assets & Facilities Management and the school senior management team including the Head Teacher.

3.5.3. Voluntary Controlled Schools

Bradford Council is responsible through Health, Safety & Wellbeing liaising with Assets & Facilities Management and the school senior management team including the Head Teacher.

3.5.4. Voluntary Aided and Foundation Schools

The Governing Body is responsible for managing the premises radon safety. The

efficient management and compliance with applicable regulations will be monitored by Health, Safety & Wellbeing liaising with Assets & Facilities Management.

3.5.5. Properties leased into Bradford Council

The Employer is responsible for radon safety. The Landlord is responsible in the first instance for leasing the premises in a suitable condition. Health, Safety & Wellbeing liaising with Assets & Facilities Management are responsible for checking that radon safety is in place prior to the occupation of the premise by a new tenant and informing the Responsible Person of these actions. Bradford Council is responsible through Health, Safety & Wellbeing, and the management of the establishment.

3.5.6. Property leased to a third party by Bradford Council

Bradford Council is responsible in the first instance for leasing the premises in a suitable condition. Health, Safety & Wellbeing liaising with Assets & Facilities Management are responsible for checking that radon safety is in place prior to the occupation of the premise by a new tenant and informing the Responsible person of these actions. There after the tenant is responsible for the premises radon safety.

3.6 Responsibility in non -Bradford Council Controlled/Funded Premises

3.6.1. Academy Schools

The Governing Body is responsible for managing the premises radon safety.

3.6.2. PFI Schools The Employer is responsible for radon safety.

A Facilities Management Contractor is appointed to manage the facility. Bradford Council staff have a duty cooperate with the Facilities Management Contractor and comply with their arrangements, policies, and procedures. The efficient management and compliancy with applicable regulations will be monitored by Bradford Council.

3.7 Responsibilities under Bradford Councils Radon Safety Management

Strategic Director (Responsible Person Radon Safety)

The Director will ensure that the Authority's Radon Safety Management System is established which will maintain suitable assessment, monitoring, maintenance, inspections, and record keeping of procedures/systems that will enable the Authority to comply with its duties under current legislation.

Assistant Directors - Council Departments

Will establish and maintain procedures to inform the Appointed Person radon safety when construction/refurbishment projects are undertaken in Bradford Council premises.

Where applicable the effect on radon remedial measures will be assessed and necessary action taken. To ensure that resources are provided for designing appropriate Radon protective measures as identified.

Health, Safety & Wellbeing Manager liaising with Assets & Facilities Management

To ensure that any Bradford Council property that is leased to third parties or leased in by Bradford Council has a radon safety inspection/check undertaken prior to the tenant taking possession. To inform the Appointed Person (3.3) for radon safety of property acquisitions and disposals.

Health, Safety & Wellbeing Manager liaising with Assets & Facilities Management

Will ensure that the management and control of risk from radon gas, is implemented, monitored, and reviewed.

To ensure that any incident or reported non-compliance relating to Radon safety is investigated and reported the Director of Property.

To maintain an effective records system.

Repairs and Maintenance / Design and Build where required to design appropriate radon protection measures and/or any identified remedial works that are required to maintain the levels of radon gas in premises to below the relevant action level.

Health, Safety & Wellbeing Manager liaising with Assets & Facilities Management

To maintain the Property Radon Register.

To undertake, monitor and review the properties Radon risk assessments.

Undertake periodic property Radon monitoring and identifying necessary control measures.

Departmental Responsibility for Management of Premises

To ensure premise managers act in line with policy and advice received from the Appointed Person (3.3) for Radon safety, responsible for premise management awareness training where necessary.

Premises where Bradford Council is not the employer responsible for Radon safety and arranging the monitoring of Radon in their premises where required.

Responsible for implementation of any Radon management measures required.

4 Procedures for the Management of Radon

4.1 Risk Assessment

Bradford Council premises will be risk assessed to identify the potential for the presence of radon gas. The assessment will refer to the Public Health England's indicative atlas of radon in England and Wales which indicates the likely extent of the local radon hazard in all buildings within 1km grid squares. Where identified premises that reside within shaded areas will as part of the risk assessment be monitored for the potential for radon gas.

4.2 Monitoring Programme

Radon monitoring will be carried out at suitable intervals commensurate with the risk based upon published geological information, radon data and/or previous monitoring results.

- All Bradford Council premises or premises where Bradford Council employees are permanently based, in radon affected areas will be monitored for the presence of radon.
- Premises in areas not designated as 'radon affected' will be regularly reviewed and may be monitored based on an assessment of the risk.
- In premises where the level of radon is found not to be above the relevant action level as specified in current legislation, re-monitoring will be carried out based on an assessment of the risk.
- Premises where remedial measures have been installed to reduce the level of radon will be immediately monitored to assess that such measures are functioning correctly and effectively.
- Premises where remedial measures are in place to reduce the level of radon will be monitored on a regular basis to ensure that remedial measures remain effective.

- Built Environment, as part of the premises condition surveys will cross check that remedial measure checks have been undertaken by the premise's duty holder.
- All below ground workplaces (a workplace that is occupied >52hrs/year) in Bradford Council estate properties will be risk assessed for radon.

4.2.1. Frequency of Monitoring

The frequency of monitoring will be determined by risk assessment for each individual property. Generally, these guidelines will be followed: -

- Where levels of radon are found to be significantly less than 300 Bq/m³ (200 Bq/m³ for residential premises) at the initial measurement, the monitoring of radon levels will be monitored at 10-year intervals.
- Re-monitoring will be undertaken after any significant refurbishment or change of use. Where radon levels are found to be above the action level 300 Bq/m³ (300 – 1000 Bq/m³) for commercial premises or 200 Bq/m³ (200 – 500 Bq/m³) for residential premises following the initial measurement, a Radiation Protection Advisor will be consulted where necessary and steps will be taken to immediately manage the occupational exposure of persons affected.
- Where an engineering remedial solution is identified as the most appropriate reduction method, this will be undertaken as soon as practically possible. After the engineering solution has been installed, direct monitoring of the radon levels will be undertaken to assess the effectiveness of the measures to ensure the effectiveness of the remedial measures.
- Monitoring will be undertaken for 6 months following the remedial work installation, then annually for 3 years and thereafter at suitable intervals. Re-monitoring will be undertaken after any significant refurbishment or change of use.
- Where levels are above 1000 Bq/m³ commercial properties (500 Bq/m³ for residential premises) a Radiation Protection Advisor will be consulted where necessary and steps will be taken to immediately manage the occupational exposure of persons affected.
- Closure or restrictions of entry to the affected area will be considered. Where restrictions on entry are implemented, personal monitoring will be carried out. Where an engineering remedial solution is identified as the most appropriate reduction method, this will be undertaken as soon as practically possible. After the engineering solution has been installed, direct monitoring of the radon levels will be undertaken to assess the effectiveness of the measures.
- To ensure the effectiveness of the remedial measures, monitoring will be undertaken for 6 months following the remedial work installation, then annually for 3 years and thereafter at suitable intervals. Re monitoring will be undertaken after any significant refurbishment or change of use. (4.3 Maintenance of Records)

Note: Bq/m³ (becquerel per cubic metre) is the preferred unit of measure for radioactivity, indicating the amount of radiation in a volume of air.

4.3 Maintenance of Records

4.3.1. Bradford Council Radon Data Base

The Property asset management data base identifies each Bradford Council property by a Unique Property Reference Number (UPRN). Radon information relating to a property is filed under the UPRN in the Electronic Document Records Management (EDRM) system.

Records are to be held for 50 years from the date of production.

The radon gas data base is a live document and will contain: -

- The historic details of the properties, radon level measurements.
- Risk posed by the properties, location, and occupation.
- Monitoring strategy – (section 4.2)
- Details of all Radon related remedial works (installation/maintenance) undertaken at the property to control the levels of radon in the premise.
- Areas of controlled access.
- Correspondence relating to the premise.

4.3.2. On-Site Records

The radon risk assessment for a premise will be made available and be retained on site.

The Facilities Managers, Premises/Depot Managers or Other Nominated Persons/Premises Manager should keep a copy of the results of any monitoring carried out.

Where mechanical ventilation is installed to reduce radon levels the Built Environment/ Assets and Facilities Management should keep a record of any checks carried out to ensure the ventilation is operating.

Where access restrictions are in operation to assist in controlling personal exposure to radon, such persons are required to fill in a personal exposure record form, these forms should be retained on site.

An employee should not receive an effective radiation dose greater than 1mSv per year from the workplace. Anyone required to work in a radon affected area will be required to record their time spent in that area on the personal exposure record form. The risk is cumulative, where short, infrequent visits are not of concern. From the site-specific risk assessment and time spent in the affected area, the cumulative dose can be calculated. If a cumulative dose of 0.5 mSv is reached (i.e., 50% of the annual allowable dose) then their line manager should be informed.

Note: mSv (Sievert) is the unit of measure to indicate the potential health risk of ionising radiation arising from exposure (dose) to a radioactive source,

5 Building Protection

5.1 New Buildings

It is better to prevent radon from entering a building than to try to remove it once present. All Council's new buildings in radon affected areas and those areas where the Building Research Establishments 'guidance on protective measures for new buildings' recommend

radon protection measures will be designed and constructed with the recommended radon protection measures in place.

5.2 Existing Buildings

Where an existing building has been shown through identification and monitoring, to have a radon level above the legislative action level, remedial measures will be designed and implemented as soon as is reasonably practicable. Any such measures will be appropriate to the levels of radon detected, the type of building affected and the occupancy rates. Following the introduction of remedial measures, the premises will be monitored. (Section 4)

In certain circumstances access restrictions may be introduced on a temporary basis until it is shown that radon levels have been reduced to an acceptable level.

6 Use of Contractors

All contractors working on Bradford Council buildings must be approved through the Council's procurement contractor selection and vetting procedures.

Any contractor invited to carry out radon remedial work must be an approved specialist contractor, who are familiar with such work and are able to comply with the Council's arrangements on: -

- Entry into the Council's premises
- Asbestos
- Hot Work
- Fire Precautions
- Confined spaces
- Radon
- Emergency Procedures

7 Radon Reporting

In line with the Ionising Radiation Regulations, radon levels more than legislative action levels, will be notified to the Health and Safety Executive (HSE) enforcement body.

8 Review of the Policy and Procedures

8.1 Regular Review

The radon policy will be regularly monitored and reviewed as required by the Appointed Person (3.3). Any changes to the policy that result from the review will be reported to the Assistant Director for Assets and Facilities Management and actioned by the Appointed Person.

8.2 Review as a result of legislative changes

It is the responsibility of the Appointed Person (3.3) to ensure that legislative changes relating to radon are monitored and any necessary actions, including amending the policy, are implemented.

8.3 Review as a result of incidents, complaints or corrective action

It is the responsibility of the Appointed Person (3.3) to monitor and act upon incidents, complaints and any corrective action taken relating to the management of radon that will have an impact upon the effectiveness of the radon policy. Any changes to the policy that result from this review will be actioned by the Appointed Person.