



Peninsula Dental Social Enterprise (PDSE)

Radon Safety Policy Version 3.0

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Approved by: The Board

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Policy will be updated as required in response to a change in national policy or evidence-based guideline.

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1. Introduction

- 1.1 Peninsula Dental Social Enterprise (PDSE) is committed to protecting the Health and Safety of its employees and others who may be affected by its undertaking. PDSE will therefore:
 - 1.1.1 Ensure organisational structures are in place to effectively manage the risks.
 - 1.1.2 Establish and maintain a monitoring programme of all its premises at regular intervals.
 - 1.1.3 Undertake any remedial work to address high levels of radon above the action levels.
 - 1.1.4 Ensure specialist advice is available to from a Radiation Protection Advisor.
 - 1.1.5 Ensure that risk assessments are suitable and sufficient in reducing and controlling the risks of radon in the workplace.
 - 1.1.6 is committed to minimising risks to patients, staff, visitors and contractors and the environment from any of PDSE's uses of radiation, in accordance with relevant legislation and with approved codes of practice issued by the Health & Safety Executive (HSE) and other statutory agencies.

2. Purpose

- 2.1 The purpose of this policy is to ensure that risks associated with radon gas are appropriately mitigated in accordance with relevant legislation and with approved codes of practice issued by the Health & Safety Executive (HSE) and other statutory agencies.
- 2.2 This policy will set out the roles and responsibilities and outlines the operational arrangements for monitoring and managing radon in the workplace
- 2.3 This policy covers all premises owned, occupied, administered, or operated by PDSE.

3. Duties

- 3.1 The Board is responsible for ensuring implementation of the employer's legal duties surrounding the management of radon gas within PDSE.

3.2 The **Director of Social Engagement & Community-based dentistry** has the delegated responsibility for the strategic management of radon within PDSE, and will:

3.2.1 Ensure that a suitable and sufficient risk assessment, which includes the measurement of radon level, is carried out for all facilities premises where these are ground floor and underground premises

3.2.2 Ensure that a Radon Monitoring Programme is developed and appropriately documented.

3.2.3 Arrange for radon monitoring to be carried out in all premises identified in the Radon Monitoring Programme

3.2.4 Arrange for remedial works to be carried out when radon gas is found within buildings at a level considered hazardous to health.

3.2.5 Ensure regular inspection and maintenance of all engineering systems provided for maintaining radon concentrations at safe level.

3.2.6 Ensuring that protective measures are installed during construction where necessary.

3.2.7 Ensure that an up-to-date Radon Register is maintained, including a record of all protective measures undertaken to reduce concentration.

3.2.8 Present an annual progress report to the Radiation Protection Committee

3.3 **The Radiation Protection Committee,**

3.3.1 Review this policy.

3.3.2 Monitor compliance with this policy

3.4 **PDSE Directors** are responsible for:

3.4.1 The safety of all staff, public and contractors in their facilities from exposure to radon gas.

3.4.2 Seeking advice from specialist advisors on compliance and, in particular, with regard to risk assessment for new facilities where there is a risk to staff or public from exposure to radon gas

3.5 **Employees** must ensure that in any work they undertake with or in areas utilising ionising radiation.

3.5.1 Comply with PDSE policies and procedures and local operational policies.

3.5.2 Attend training programmes as required and maintain own competence via recognised programmes of Continuing Professional Development (CPD).

3.5.3 Only undertake work for which they have been adequately trained and are entitled to do so.

3.5.4 Never use equipment on which they have not been trained.

3.5.5 Must wear as directed, and return as required, any personal dose meter issued.

- 3.5.6 Report any incident immediately in line with PDSE Incident reporting and investigation policy.
 - 3.5.7 Do not recklessly endanger the safety of others.
 - 3.5.8 Should advise managers as soon as possible that they are pregnant so that appropriate precautions can be taken.
- 3.6 **The Radiation Protection Advisor (RPA)** is a specialist in radiation protection and is formally appointed as required by Ionising Radiations legislation. The RPA is accountable to the Board.

4. Level of Risk

- 4.1 The radioactive gas radon is a hazard in many homes and workplaces. Breathing in radon is the second biggest cause of lung cancer in the UK¹
- 4.2 Radon is a naturally occurring radioactive gas that can seep out of the ground and build up in houses and indoor workplaces.
- 4.3 The UK has been extensively surveyed by Public Health England (PHE) and British Geological Survey and the Indicative Atlas of Radon in England and Wales shows that Devon and Cornwall are Radon Affected Areas. PHE define Radon Affected Areas as those with 1% probability or more of a home having radon above the Action Level.
- 4.4 The risk to staff of exposure to radon will depend on the level of radon in the workplace and the length of time spent in the location.

<http://www.hse.gov.uk/radiation/ionising/radon.htm>
<http://www.ukradon.org/>

5. Operational Guidelines

5.1 Measuring and Monitoring Radon Levels

- 5.1.1 The measurement of radon levels in PDSE premises will be carried out in accordance with the Radon In The Workplace Guidance (Appendix A) and a programme of monitoring will be developed and documented in the form of a Radon Monitoring Programme (Appendix B).
- 5.1.2 As part of the ongoing monitoring procedure, measurements will be repeated at 10 year intervals in areas with low levels of radon.

- 5.1.3 Where radon levels are initially found to be between 200 and 400 Bq/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 three years.
- 5.1.4 PDSE premises which need to be considered as having an Action Level of 200 Bq/m³ also include residences, supported domestic homes, recovery services and children's respite units

5.2 **Protective Measures**

- 5.2.1 The Director of Social Engagement & Community-based dentistry will ensure remedial work is carried out to where levels are found to be above 400 Bq/m³, or above 200 Bq/m³ in PDSE premises as defined above.
- 5.2.2 If for any reason remedial work cannot be carried out in a reasonable timescale or after remedial work has been carried out and levels remain above the Action Level, the Radiation Protection Advisor will be consulted on how to make the building or parts of the building a Controlled Area as defined by IRR 2017.

6. **Monitoring Compliance and Effectiveness**

- 6.1 The Radiation Protection Committee will receive annual progress reports from the Director of Social Engagement & Community-based dentistry
- 6.2 The annual radon report will include the following as evidence of compliance
 - 6.2.1 An up-to-date Radon Register and a current Radon Monitoring Programme for ensuring that all PDSE premises have radon levels measured at the defined intervals.
 - 6.2.2 The identification of properties with radon concentrations that exceed the Action Levels and details of protective measures in place.
 - 6.2.3 A summary of Radon monitoring results.

Radon in the Workplace Guidance

Radon in the Workplace

Exposure to radon in the workplace is regulated under the Ionising Radiations Regulations 1999 where levels exceed action levels. Employers are required by the Management of Health and Safety Regulations at Work 1999, to assess risks from radon in workplaces in [Affected Areas](#), and this usually requires a measurement. The Ionising Radiations Regulations 1999 require action to protect employees if the average radon gas concentration exceeds 400 Bq m⁻³ (becquerels per cubic metre of air).

Employers are required, therefore to carry out a risk assessment to determine what actions are required, and have a policy for workplace exposure to Radon.

The risk assessment will need to consider the location of all buildings where employees work, the nature of the buildings, and the likelihood of there being high radon levels. Where indicated, a programme of radon monitoring will need to be carried out. If radon levels are found above action levels, remedial action must be undertaken.

The employer's policy should consider the approach to the risk assessment, criteria for assessment of premises, including the programme of monitoring where indicated, specify action levels which may be different where there is extended working days or accommodation, etc.

For monitoring of workplaces assessment should be carried out in areas where there is a greater than 1% probability of levels exceeding the action level. Such information can be obtained from Radon Atlases or by a postcode search. In some areas where radon exposure is generally high it may be pragmatic to monitor at all locations. Radon monitoring should be repeated at appropriate intervals. HSE current advice is 10 years where levels are around or above 400 Bq/m³. Where levels are significantly below 400 Bq/m³, however, testing should be significantly more frequent.

In terms of monitoring advice can be sought from the Health Protection Agency, and current advice is reproduced below. Monitoring can be carried out at any time of year, but is best performed during winter months.

There are no types of indoor ground floor workplace in which the radon can be assumed always to be low because of ventilation or working conditions. It is not, however, generally necessary to measure above the ground floor. The number of monitors

required for each building depends on the workplace type and use, see below. There is no need to place monitors in cupboards or stores that cannot be entered.

Monitors are usually dispatched within seven working days and must be placed at the measurement location within three days of receipt.

The number of monitors required for each building depends on the workplace type and use, see below, and should be placed in the lowest routinely occupied floor and any basement areas.

Workplace type*	Number of monitors	Examples
Office, individual or small	One per 100 m ² , generally corresponds to between a half and third of all ground floor rooms	Banks, shops, professional practice
Open plan office, and retail or workshop up to about 1000 m ² , also public access areas	One per 250 m ²	Administrative and call centres, light industry, hotels, schools
As above, up to 5000 m ²	One per 500 m ²	Large retail etc
Very large areas of several thousand m ²	One for each distinct area with obviously different environmental conditions, not less than 1 per 1000 m ² .	Manufacturing or process plant, warehouses
Basements	One in each separate room, section or area irrespective of size. Even if rarely used, changes in procedures might increase exposure.	Retail, bank and professional storage areas
Wholly underground	As a guide at least one in each main working area, and other normally occupied areas, but seek specialist advice	Water industry, mines and caves

* **Effect of ventilation** - in principle, radon may be prevented from accumulating in premises with particularly high influx of fresh air, but a measurement is still required unless a risk assessment can show that the radon level at a particular location is necessarily low at all times when it is occupied. Furthermore there will often be adjoining or linked places, such as an office, store, computer area or access duct, with

quite different conditions where a measurement would be required. Monitors can be obtained at a cost of approximately £15 each from the Public Health England (PHE), or other providers. Where levels are in excess of action levels remedial action will be required. Advice on appropriate can be obtained from various sources including the Buildings Research Establishment, PHE and the Radon Council.

Further information :

HSE <http://www.hse.gov.uk/radiation/ionising/legalbase.htm>

HPA <http://www.ukradon.org/information/hands>

Radon Monitoring Programme Template

PDSE

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Date:

Radon Monitoring Programme 20.. – 20..

Procedure

Master Floor Plans are examined to identify ground based floor areas in PDSE premises.

In accordance with PHE guidance, the number of monitors generally required for each building is determined as follows (except where specifically advised by the PHE):

- Open Spaces – 1:250m²
- Enclosed Spaces – 1:100 m²

Monitors are ordered from the HPA. Each unit has a unique identification number assigned. The location of each unit is marked on a drawing and recorded on a spreadsheet.

In order to avoid seasonal adjustments with test results, monitors are placed during the winter months.

Where possible, monitors are placed at waist height, away from doors, and in areas that are regularly occupied or accessed by staff, including: rest rooms, offices, void areas, plant rooms, dining halls, kitchens, and stores.

Staff are notified via email about the placement of radon monitors and asked not to tamper or move the units. Each unit is labelled: 'Public Health England. Do Not Remove.'

After three months, the monitors are collected, re-packaged and sent to the PHE for testing.

Measurements are interpreted by the PHE, and results are forwarded to Director of Social Engagement & Community-based dentistry for action.

