



HM Prison &
Probation Service

HMPPS Assessment and Control of Radon Manual

Version 1.1

Date of Issue 17 April 2023

Date	Version	Approver
07.08.2023	Version 1.1 implemented	Hayley Gethen -HQ H&S Lead

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This guidance should be read in conjunction with the policy framework Assessment and Control of Radon and associated annexes.

Annex 1 Procedural Actions Flowchart, provides an overview of process steps required by those responsible for the management of radon.

1. What is radon?

- 1.1 Radon is a colourless, odourless radioactive gas which is formed by the radioactive decay of the small amounts of uranium that occur naturally in all rocks and soils. Radon is present in many areas of the UK at a wide range of levels. Locations with raised levels are known as 'Radon Affected Areas' (RAA).
- 1.2 A build up of radon may occur in indoor areas, particularly in confined or underground spaces. This can be controlled by effective ventilation or alternative controls for example controlling time spent in an area to reduce the risk of exposure.
- 1.3 Further information on Radon is available from the UKHSA website [UKradon - Home](#)

2. Exposure measurement and action levels

- 2.1 Radon is measured in Becquerel's per cubic metre (Bq / m³) and exposure action levels are set by law for workplaces. Where Radon levels are shown to exceed the action levels, averaged annually, mitigation measures to reduce exposure must be implemented.
- 2.2 It is important to note that prisoners in cell accommodation and people on probation residing in approved premises may potentially be exposed for longer periods equivalent to domestic exposure due to time spent in their cell/bedroom, so both domestic and workplace exposure thresholds are used.

These action levels are:

- 300 Bq m³ for any workplace or workroom
- 200 Bq m³ for any home, including all cellular and other sleeping accommodation

3. Subterranean room register

- 3.1 The register created by the Facilities Management (FM) provider can be maintained manually or electronically, however should be available on request of the local HSF team and MoJ PS

4. How do we identify if the site is in a radon affected area?

- 4.1 Details of RAA areas and their levels of radon are held by UK Health Security Agency (UKHSA) and are accessible via their website [UKradon - UK maps of radon.](#)
- 4.2 The Radon interactive map provides basic information to confirm if the site or any part of it, is within a 1 km grid square of a radon affected area (RAA).
- 4.3 Where it is identified the site is in a RAA a more detailed Radon survey report should be obtained via the British Geological Survey website [BGS Shop · GeoReports.](#)

This survey holds much more detailed data on radon levels within the large area you specify. It may reveal that your specific location is not affected even though it appears to be from the UK Radon indicative map.

5. Survey monitoring and report

- 5.1 Subterranean work rooms in sites wholly outside of radon affected areas in which the exposure of staff is less than 50 hrs per year **do not** require radon monitoring.
- 5.2 Monitoring should cover samples of relevant buildings, especially those with cellular/sleeping accommodation, in order to quantify the levels of radon present within buildings and assess the likely health effects of exposure.
- 5.3 On provision of the monitoring survey report, where this confirms below action levels, sites should consider the Radon hazard and controls within existing local risk assessment where the site is in a Radon affected area.

6. Notification of above action levels

- 6.1 Where radon levels are found to exceed radon action levels following a three month monitoring programme the following are to be notified by the HMPPS Headquarters Health and Safety (HS) function;
 - The Health and Safety Executive [lonising radiation · Customer Self-Service \(hse.gov.uk\)](https://www.hse.gov.uk)
 - The HMPPS Radiation Protection Advisor (RPA)
 - HMPPS Health & Care Partnerships Team (health@justice.gov.uk).

The HS Headquarters function will jointly agree with the Health & Care Partnership Team the appropriate level of escalation and referral to UK Health Security Agency or Regional Health Protection Teams for expert advice, and to support a local or regional response from Health Protection services if that is considered necessary.

The UK Health Security Agency (UKHSA) is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats.

7. Planning and mitigation controls

- 7.1 Temporary mitigations may need to be in place under the advice of the appointed RPA where above action levels have been identified until permanent measures are implemented.

This could include;

- An identified area/room being closed or access restricted
- Additional ventilation being introduced
- Local rules being put in place
- Change of use and occupation patterns

8. Operational management checks

- 8.1 The manager of the area as part of the area checks will ensure;
 - Passive mitigation controls in place have not been tampered with e.g. vents remain clear from obstruction and unblocked on a quarterly basis or more frequently appropriate to the risk.
 - Those working in the area abide by restrictions and controls

9. What information do staff need to be provided with?

- 9.1 Within the induction process, staff, prisoners, people on probation and third parties should be provided with information related to radon where a site is located in a radon affected area and/or there are subterranean rooms /accommodation.

Information provided should include but is not limited to;

- What radon is and how it occurs
- Hazards presented i.e. to health
- Findings of any assessment and the means by which the risk is controlled.
- Importance of not tampering or altering any controls (such as vents being blocked)
- Meaning of signs used for controlled areas (where these may be in place)
- Awareness to local rules (where these may be in place) in the interim of permanent mitigations being put in place

Further information on Radon is available from the UKHSA website [UKradon - FAQ \(ukhsa-protectionservices.org.uk\)](https://www.ukhsa-protectionservices.org.uk)

- 9.2 Where there has been an over exposure, it is important to provide further information to;

- identified individuals affected at the earliest opportunity using the approved Radon Awareness package **Annex 3**.

- 9.3 Consider how temporary mitigations may impact on occupants and how this is communicated prior to controls being put in place where applicable. To reduce unnecessary stress and anxiety, it is important that those who may be directly affected are provided with information via a face to face briefing at the earliest opportunity.

- 9.4 Following completion of the exposure assessment undertaken by the HMPPS RPA, HS HQ will provide letters for issue by the Governor/RPD to affected individuals where it is identified exposure is above 1 mSv.

10. If there are concerns about compliance

- 10.1 If it is suspected that there is a compliance issue with any part of the radon policy and management arrangements, an early warning notice should be communicated to the FM provider via MoJ Property Services.

To inform the early warning notice the local HSF team should complete the Local Radon Implementation Summary Record which can be found in the Sphera risk assessment module.

For contracted prisons without access to Sphera, the question set is outlined in **Annex 2**.



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