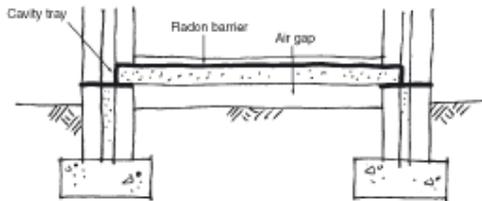
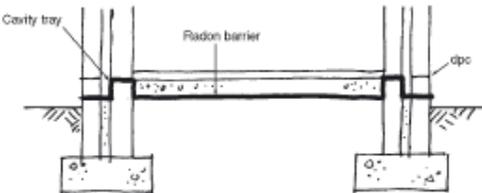


## Basic radon protection

This comprises a physical barrier at ground floor level and can normally be combined with the damp-proof membrane and the damp-proof courses required to protect against moisture from the ground. By extending the membrane across the cavity into the wall (providing a cavity tray to prevent the ingress of water from above) and by ensuring all joints and service penetrations are sealed, then basic protection against radon should be achieved.



Basic radon protection – suspended concrete floor



Basic radon protection – ground supported concrete floor

## How do I obtain radon potential information?

On 12th November 2007, the Health Protection Agency (HPA) and the British Geological Survey (BGS) issued new and more detailed maps of radon Affected Areas in England and Wales. An indicative atlas of radon in England and Wales is available on the HPA website [www.hpa.org.uk](http://www.hpa.org.uk)



More information is available from:

✉ Building Control, South Somerset District Council, Brympton Way, Yeovil, Somerset, BA20 2HT

🌐 [www.southsomerset.gov.uk/buildingcontrol](http://www.southsomerset.gov.uk/buildingcontrol)

☎ 01935 462462

📧 [buildingcontrol@southsomerset.gov.uk](mailto:buildingcontrol@southsomerset.gov.uk)



Version 4, dated 12<sup>th</sup> December 2012

**If you would like this document translated into other languages or into Braille, large print, audio tape or CD, please contact:**

☎ **01935 462462**

Dokument ten jest na życzenie udostępniany w językowych polskim.

Este documento encontra-se disponível em Português, a pedido.

## Building Control Services

### New building work in radon areas of South Somerset



## Guidance Leaflet - 9



## Introduction

Radon is a colourless, odourless gas which is radioactive. It is formed where uranium and radium are present, and it can move through cracks and fissures in the sub-soil and thence into the atmosphere or into spaces under and in buildings, as shown in the diagram on the right. The National Radiological Protection Board (NRPB) has set the action level at 200 bequerels per cubic metre.

Currently this relates to new dwellings and extensions to the same standard as the house, and this is controlled under Part C of the Building Regulations 2010. In February 2000 the Government guidance on radon was revised. The new BRE Guide BR211 allows for greater investigation into possible risks from radon on any particular site.

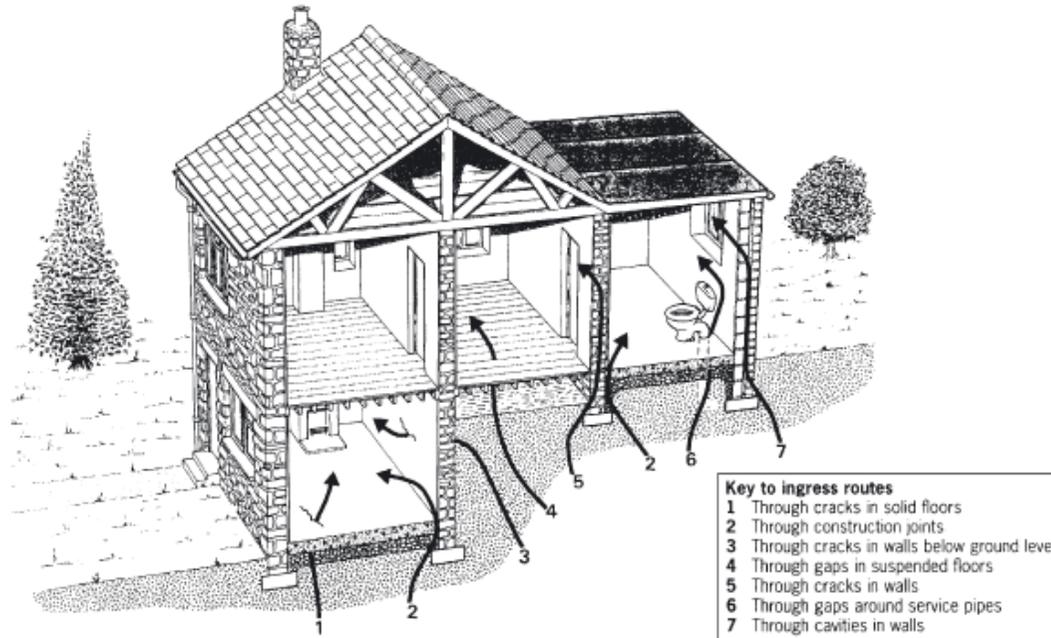
This investigation is initially through the use of two sets of maps within the guidance and, if necessary, by a request for assessment from the British Geological Survey (subject to a fee). The result of the assessment will lead to one of the following recommendations:

- No radon protection measures necessary.
- Basic radon protection needed.
- Full radon protection needed.

## Protective measures

Radon enters a building primarily from the underlying ground. Principally there are two types of protection - passive and active. The degree of protection is either:

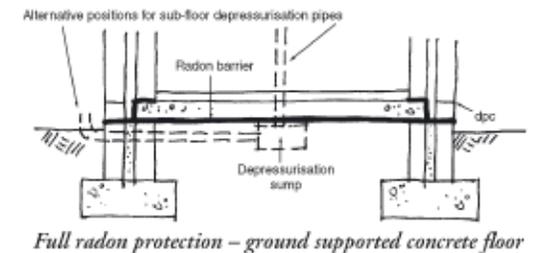
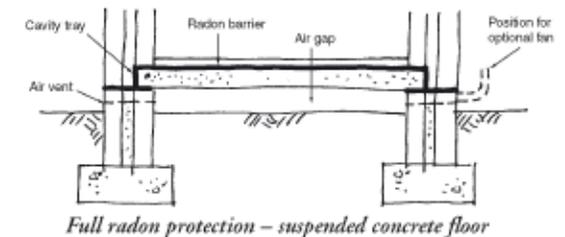
- Basic radon protection (Passive), or
- Full radon protection (Active).



## Full radon protection

Where the risk of radon is higher, close attention to workmanship is important to ensure a gas-tight barrier. This should be supplemented by the provision of a radon sump with a depressurization pipe fixed either horizontally or vertically and discharging to the outside of the building, or by the provision of adequate ventilation if there is a sub-floor void. If after testing exceptionally high readings are present, fans can be fitted to the depressurization pipes to enhance radon dispersion.

In all cases barriers should comprise taped or sufficiently lapped 300 micrometre (1200 gauge) polythene sheets (reinforced is recommended) or the equivalent in flexible sheet roofing materials, liquid coatings, self-adhesive bituminous coated sheets or asphalt.



In the absence of a geological assessment, all buildings will be required to be provided with full radon protection.