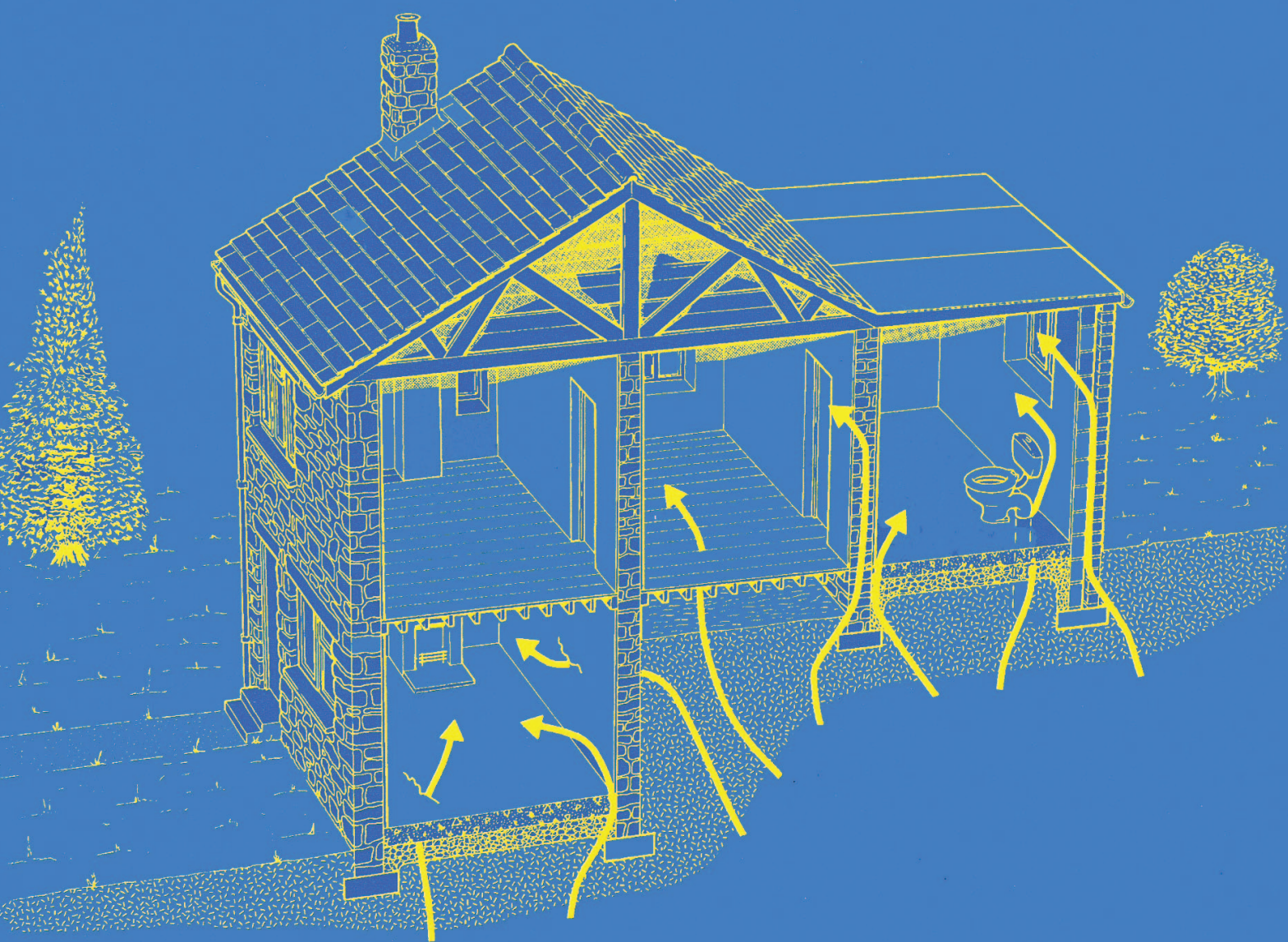


# A BRE GUIDE TO RADON REMEDIAL MEASURES IN EXISTING DWELLINGS

## Dwellings with cellars and basements

C R Scivyer and M P R Jaggs



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# Introduction

This guide is one of a series giving practical advice on methods of reducing radon levels in existing dwellings. It is intended to help surveyors, builders and householders who are trying to reduce indoor radon levels in houses with cellars or basements.

The guide is based on a large body of remedial work carried out to advice given by BRE, and on discussions with others working in the field. The measures it describes are applicable, in principle, to all dwellings and other buildings of a similar scale and construction which have cellars or basements.

Contact details of other organisations referred to are listed at the back of this guide.

Basements and cellars are relatively uncommon in the United Kingdom, but where they do occur they are likely to be major contributors to the radon problem within a building. Experience shows that most houses with high indoor radon levels can be remedied through the use of straightforward building works. These can be carried out by a builder or householder competent in DIY. The cost should not be excessive.

Before reading this guide, for background information on radon, consult *Radon: a householder's guide* and *Radon: a guide to reducing levels in your home*, obtainable from local Environmental Health Officers or from the Department of the Environment, Transport and the Regions. The Government recommends that, if the average radon concentration in a dwelling exceeds 200 Bq/m<sup>3</sup> (the 'action' level), measures should be taken to reduce it. This guide assumes that radon measurements have been made in the building and that the annual average indoor radon level was shown to exceed the action level.

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## How to use this guide

To help you to find the most appropriate solution for your house, this guide is split into four sections.

### **A: Background**

You should read the whole of this section as it contains important information about radon and its measurement.

### **B: Identification of types of cellars and basements**

Read this section to identify the type of house that you have.

### **C: Choosing a radon solution**

Having identified the type of house that you have, read the part of this section that discusses the different types of remedial measure that might be appropriate for your house.

### **D: Remedial options**

Having identified the appropriate solution for your house, read the part of this section that describes in more detail the practical construction necessary for that solution.