

## **Radon Awareness Information**

RADON is a naturally occurring radioactive gas produced in the ground by the radioactive decay of uranium present in all rocks and soils. It has no smell, taste or colour and cannot be detected by one's senses.

### **Why should you be aware of it?**

Radon is radioactive and is classified within the same group of carcinogens as asbestos and tobacco smoke as a cause of lung cancer in humans. It is these radioactive properties that make it carcinogenic and the second most important cause of lung cancer after smoking. As radon is a gas, it can move easily through the soil enabling it to enter the atmosphere or seep into buildings. Outdoors, radon quickly dilutes to harmless concentrations, but when it enters a building it can sometimes accumulate to high and unsafe concentrations.

### **How can radon enter a building?**

Radon enters a building from the ground mainly through cracks in floors or gaps around pipes or cables (figure 1: routes of entry into a structure). Minor amounts of radon may also come from building materials and water supplies.

### **When should a householder consider taking action?**

In 1990 the government adopted 200 becquerels per cubic metre (Bq/m<sup>3</sup>) as the national Reference Level for radon in homes in Ireland. (The becquerel is the unit in which radioactivity is measured). The Reference Level is not a rigid boundary between safety and danger but is a radon concentration at which it is recommended that the householder consider taking action to reduce the level

### **How do I know if radon is present in a building?**

The only way to detect radon is to use specialist equipment. Fortunately this is not as complicated as it sounds. Householders can have a radon measurement carried out by the Radiological Protection Institute of Ireland (RPII) or another radon measurement service. Measurement usually involves posting two small detectors, similar to those shown in the photograph, to your home. One is placed in a bedroom and the other in a living room. Indoor radon concentrations can vary considerably from day to day so the measurement period should not be less than three months. The detectors are returned for analysis at the end of the measurement period and following analysis, the results and recommendations are sent to the householder by post.

### **Is Dun Laoghaire Rathdown a high-risk area?**

Dun Laoghaire Rathdown is not, statistically a high-risk area but the RPII stress that buildings within the county may still have a high radon reading. The only way to know if your home has a radon problem is to arrange a test for your home.

### **If our home has a reading in excess of 200 Bq, what should I do?**

Contact the RPII in Clonskeagh. They have a number of contractors on file who they can refer you to.

### **Lastly, I run a business - what should I do?**

Similar to domestic homes you should also arrange to have your place of work tested. However the number of detectors needed may differ so advice should be sought from the RPII or another testing service provider

## **Acknowledgement & Further Information**

The information and graphics contained within this article have been reproduced with the kind permission of the RPII.

Dun Laoghaire Rathdown County Council would like to acknowledge the assistance of the RPII in putting this article together. Further information about Radon can be obtained from the RPII at:

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Freephone Tel: 1800 300 600  
or by logging on to the RPII website  
[www.rpii.ie/index.aspx](http://www.rpii.ie/index.aspx)