

Over 30 homes in Kilkenny found with high levels of cancer-causing radon gas

Five homes had readings of more than 4 times the acceptable level

[Thursday 16th June 2011]. Thirty-two homes in Kilkenny have been found to have high levels of cancer-causing radon gas in the past nine months, according to figures released today by the Radiological Protection Institute of Ireland (RPII).

Nationally, radon is the second biggest cause of lung cancer after smoking and is directly linked to about 200 lung cancer deaths each year.

A record number of homes (over 800) from across the country have been identified as having high levels of radon in the last nine months. Among the findings is a home in north Kerry with levels 185 times the acceptable level which is amongst the highest ever found in a European house.

In Kilkenny, a total of 210 homes were measured by the RPII for radon gas between 1st September 2010 and 1st June 2011. Of these, 32 were above the acceptable level of 200 becquerels per cubic metre (Bq/m³).

Mr David Fenton, Senior Scientist at the RPII said: "The high levels are a cause for concern as radon causes lung cancer and for those with homes that have high levels, testing is the first step towards making your home safe."

Five homes had more than four times the acceptable level with readings in excess of 800 Bq/m³ and were found in: Waterford city (1), Inistioge (1), Mooncoin (1) and Mullinavat (2).

The remaining 27 results had readings of between 200 and 800 Bq/m³ and were found throughout the county: Borris (2), Carrigeen (1), Gowran (1), Graiguenamanagh (1), Inistioge (2), Kilkenny city (4), Kilmacow (6), Mooncoin (1), Mullinavat (2), Piltown (1), Slieverue (1) and Waterford city (5).

Commenting on the findings, Mr Fenton said: "These figures show that Kilkenny has a significant radon problem. Based on the National Radon Survey, we predict that there are hundreds more homes across the county with high levels of radon gas. To date, only a very small proportion of these homes have been identified. Exposure to high radon levels causes lung cancer and many people are unknowingly living with very high levels in their homes. The only way people will know if it is in their homes is by testing."

Measuring for radon and, in the event of a high reading, reducing the levels present are both easy to do. To test for radon, one radon detector is placed in a bedroom and a second in a living room for a three-month period. The detectors can be sent and returned by post for analysis. The RPII and a number of private companies provide a radon measurement service. The cost of a measurement is around €50.

If a moderate radon level is found, improving indoor ventilation may reduce the level by up to half. The cost of doing this is low. For higher levels, a fan assisted sump can be installed which can reduce radon levels by over 90%. The sump can be installed in a day with little disruption to

the home. The average cost of this work is €1,100 with annual running costs of approximately €90.

An interactive map is available on the RPII's website (www.rpii.ie) so that anyone can search for their address or nearest town to see whether their home or workplace is in a High Radon Area. They can find out what they need to know about radon – what it is, why it is a problem and how they can have a measurement made. Information can also be obtained by phoning Freefone 1800 300 600.

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For further information:

Radiological Protection Institute of Ireland

David Dawson 01 206 69 13
Marie Kelly 01 269 77 66

Murray Consultants 01 498 03 00
Aoibheann O'Sullivan 087 629 14 53

Note to Editors:

In the interest of confidentiality, the identification and exact location of the homes with high radon results will not be made available.

The high result in Kerry was measured by private measurement company and the RPII was informed of these findings.

Data for all radon measurements undertaken since the early 1990s to-date by the RPII is available on its website: <http://www.rpii.ie/Your-Home/Radon-in-your-home/Radon-results-by-country.aspx>

Radon is a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils. It has no smell, colour or taste and can only be detected using special detectors. Outdoors, radon quickly dilutes to harmless concentrations but when it enters an enclosed space, such as a house or other building, it can accumulate to unacceptably high concentrations. This gives rise to a radiation dose, which may cause lung cancer.

The national Reference Level for radon in homes is 200 becquerels per cubic metre (Bq/m³). The becquerel is the unit of radioactivity.

Radon is a Class-1 carcinogen. Long-term exposure to radon increases the risk of lung cancer. Based on current knowledge, it is estimated that in Ireland, for the population as a whole, a lifetime exposure (i.e. 70 years) to radon in the home at the Reference Level of 200 Bq/m³ carries a risk of about 1 in 50 of contracting fatal lung cancer. This is approximately twice the risk of death in a road accident. For people who smoke, or who have smoked, the risk from radon is up to 25 times greater than for people who never smoked.

Specific guidance on radon prevention measures for new homes is contained the “Building Regulations 1997, Technical Guidance Document C – site preparation and resistance to moisture” which is published by The Department of Environment, Community and Local Government

(<http://www.environ.ie/en/Publications/DevelopmentandHousing/BuildingStandards/FileDownload.1642.en.pdf>). The guidance specifies that all new homes, built since 1st July 1998, must be fitted with a standby radon sump which can be activated at a later stage to reduce any high radon concentrations subsequently found. For homes built in High Radon Areas, the installation of a radon barrier as well as a standby radon sump is required.