

Good Morning Ladies and Gentleman

On behalf of the RPII, I am delighted to welcome you all here to Cork to the 8th National Radon Forum. Radon is by far the largest contributor to the total radiation dose received each year by the Irish public. At about 56%, it is much greater than the radiation dose received as a result of activities at Sellafield or Chernobyl or past weapons testing, which taken together account for much less than 1% of the total. In addition to radon, one of the other main contributors to population dose is the radiation we receive through x-rays and scans used for medical diagnosis. While this radiation exposure is clearly of benefit to those exposed, it nonetheless needs to be controlled to ensure that people do not receive more radiation than strictly necessary.

Exposure to radon can cause lung cancer. We are confident saying this because the scientific evidence is compelling. For an individual, the risk of lung cancer depends on the concentration of radon and number of years over which they are exposed. In some buildings, depending on where they are built and how they are built, the radon concentrations can be very high, greatly increasing the risk of lung cancer for people living or working in such buildings. Each year in Ireland we find many homes with radon concentrations above acceptable levels. Once a house is identified, there are relatively straightforward ways in which the radon concentrations can be reduced so people do not need to suffer this exposure.

Internationally, bodies such as the World Health Organisation, have developed guidance to help countries develop national programmes to minimise public exposure to radon. The European Commission, through the directive on the protection of the public and workers against the hazards of ionising radiation, requires member states to minimise public exposure to radon. And with good reason – in Europe each year, some 20,000 lung cancer deaths are linked to radon exposure, representing 9% of all lung cancer deaths. In Ireland, the problem is more acute than the average for Europe. Here, some 200 lung cancer deaths each year are linked to radon representing 10 – 15% of all lung cancer deaths. Based on our surveys, RPII estimates that a quarter of a million people are living in homes with radon concentrations above the Reference

Level of 200 Bq/m³. The average indoor radon concentration in Ireland, is 89 Bq/m³, one of the highest in Europe. In Ireland, it is not unusual to find a home with a radon concentration above 800 Bq/m³ – this year we have identified 83 such homes. Although we actively publicise these findings, particularly in the areas where high levels are found, generally the rate of testing and of remediation is very low and the public seems largely indifferent to radon. To try to understand better why this might be and what we might do to improve the situation, the theme for this year's forum is "radon, a well known health risk but how do we influence the public".

Why is there public indifference? Of course, the properties of radon don't help. A gas with no colour, taste or smell will not easily get a person's attention as a matter on which he or she needs to take action. Also, in the familiar setting of home it is easy for people to feel complacent; to associate exposure to radiation with other distant radiation sources outside of their control. The risk of lung cancer is a statistical risk. By this I mean that although we can confidently estimate the number of lung cancer deaths related to radon exposure each year, at the lower radon concentrations, we cannot say with certainty that this person or that person died from radon exposure. Furthermore, the fact that the risk from radon is a long term risk means that it is easy for people to put it on the long finger.

Against this background, we will have presentations and discussions on a range of related topics at today's forum.

1. Radon prevention in new build

We know that the correct installation of radon prevention measures in new buildings as required by the national building regulations, will, over time reduce the average level of radon and that it is therefore a most cost-effective way of reducing the number of radon related lung cancers and the number of homes above the Reference level. Radon ought not to be a problem in new homes fitted with a radon barrier. Indeed it is our experience that many people living in new homes feel they do not need to measure radon due to this requirement. While the incidence of high radon levels is lower in homes built since the building regulations came into force in 1998, it is still quite common

to find high radon concentrations in new homes. Our first speaker, Mr Gavin Cullen is a building control officer with South Tipperary County Council. Gavin will give his perspective on radon prevention in new homes and what needs to be communicated to the public.

2. Radon in Cork

Over the last two years, Cork County Council has assessed the radon concentrations in some 4560 local authority homes in the county. Where radon concentrations were found to be high remediation work was undertaken and the homes re-tested to ensure that the remedial work was successful. The measurement of radon in such a large number of homes greatly improves our knowledge of the radon picture here in Cork. In the first part of this presentation, Stephanie Long of the RPII will outline what this data tells us about the radon risk in Cork. As I have already highlighted, measuring radon is only one step towards reducing radon risk. Where high levels are found they must be reduced. The measurement programme undertaken by CCC identified several hundred homes that required remediation and retesting, particularly in North Cork. The undertaking of such a large programme of measurement and remediation of local authority homes is unprecedented in Ireland and an excellent example of what can be achieved. Cork County Council are to be commended for this initiative. I am sure the management of this project will be of interest to this audience, particularly those of you from Local Authorities. I am therefore delighted to welcome Mr Alex Grassick of Cork County Council who will review how the remediation works were implemented in the north Cork division.

3. Radon in workplaces

Today we will also hear a presentation on Radon in workplaces which is an issue not just of radiological protection, but one that raises more general concerns about health and safety in the workplace. The State Claim's Agency has identified radon in State workplaces as a potential issue for litigation against the State.

For this reason the SCA recommended that all State workplaces be tested for radon. This recommendation gave rise to a comprehensive measurement programme comprising thousands of individual measurements in State

workplaces located throughout the country. The dataset is a very important source of information on radon in workplaces and I am therefore delighted to welcome Ms Catherine O'Reilly of the SCA who will review how this work was undertaken and the results obtained.

Ultimately, it is radon in our homes that contributes the most to the dose from radon. But persuading private householders to measure and if high radon levels are found, to remediate, remains a difficult challenge. Curiously, awareness of radon in Ireland is high. In surveys carried out for the RPII in 2004 and 2010 some 75% of adults reported they had heard of radon. So why has this high level of awareness not translated into action. Earlier this year, the RPII commissioned Lansdowne Millward Browne to look more carefully at this question, and through the use of focus groups, to find out why people are reluctant to test for radon. This type of research is novel in relation to radon in Ireland and the results were very interesting. I am therefore, very pleased to welcome Ms AnnMarie Dillon of Lansdowne, Millward Browne who will describe how the survey was carried out and review the results obtained.

In April the RPII and HSE, published a Joint Position Statement on radon. This important statement called for the establishment of an expert group tasked with driving the development of a national radon control strategy. While the RPII is committed to continuing its effort to promote awareness of radon in the country and to work bilaterally with other State Agencies, it remains our view that such efforts need to be carried out as part of a Government led strategy involving relevant state agencies and key stakeholders. We will continue to work with the Department of the Environment, Heritage and Local Government to support the development of this strategy.

Finally, the primary purpose of this Forum is to provide a platform for bringing together all those involved with radon protection in Ireland. With this in mind we aim to make the Forum agenda as wide-ranging as possible so that it is relevant and of interest to all of you. The most successful previous forums have been those with a wide audience participation and I would encourage all of you to express your views and share your experiences.

I hope you find the forum useful and informative and I would like to thank you all for your attendance here today.