

Environmental **Radon** Newsletter

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Radon Intercomparisons

Passive radon detectors being exposed in an intercomparison at NRPB

Minister Announces More Radon Measurements

On 28 January Environment Minister James Clappison announced that there would be more radon measurements this year. He said,

“Following two successful campaigns conducted last year, we intend to offer a further quarter of a million invitations to have a free radon measurement this year. Invitations will be sent to all homes in England where there is a greater than 5% chance of being above the Government’s radon Action Level, and which have not already received an invitation.”

“These invitations will complete a two-year programme to ensure that all households in the most radon-affected parts of the country have received an invitation to have a free measurement. The results obtained will allow clearer identification of localised areas where radon is a particular problem. Future measurement programmes will concentrate on these localities, within the areas with a greater than 5% chance of being above the Action Level.”

The first invitations were sent out at the beginning of February to counties in Central England. Other invitations will be issued later in the year.

It is essential to maintain high standards of radon measurement, the advice to householders depends on the results. In the UK there is a validation scheme for laboratories making measurements in homes, under which they are tested every 6 months.

The European Commission is equally keen to ensure that high standards are maintained throughout the community. Since 1982 the EC has sponsored a series of six intercomparisons of passive radon detectors, organised by NRPB. Each one has been more popular than the one before, with the last exercise attracting fifty laboratories from around Europe.

The EC has now contracted NRPB to provide three annual intercomparisons to provide a regular check on the performance of laboratories. The first one will start early in 1997.

INSIDE: DOE RADON POLICY
Maurice Jones and Steve Brown
debate

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DEPARTMENT O

Letter from Maurice Jones, Wellingborough District Council



Radon Newsletter 8 updated everyone on the new Radon Maps with an excellent short article on the newly identified areas where it may be anticipated properties will be found with radon levels above 200 Bq m⁻³. The article did not say free radon measurements were available. It did however state 'Invitations to have free radon measurements have been sent to some 100,000 houses.' It also said 'In areas where a free radon measurement is not available, the same service can be obtained by the payment of a small fee.'

From this I believe one can question the Government's commitment to their radon policy; the cost of offering free radon measurements in the new Affected Areas must be 'peanuts' in the terms of Government finance, however that is their decision. My criticism is about the information, indeed advice, given in the DoE leaflet 'Radon you can test for it.'

On the one hand the DoE are saying locally radon is the biggest risk to air quality in dwellings - this was stated loud and clear at Congress at Harrogate by Linda Smith, Head of Environment and Health Unit, DoE. She even brought thanks and congratulations to local authorities from their colleague in Radiation Protection, yet the leaflet mentioned above tells householders:

'If you have not so far been invited by the NRPB to have a free radon test this is because your home has not been identified as being in the highest risk category. You can take comfort from this.'

Is this responsible advice? We all know the number of free monitors was fixed by the DOE on financial constraints, not attempting to identify

all households within Affected Areas that have radon levels that require mitigation. Why have defined Affected Areas and then tell the vast majority of householders there is no need to worry, no real need to even test your house?

The Steering Group on Radon which I have the privilege to chair has representatives from local authorities in recently declared Affected Areas. From the information package supplied at that time in those counties there are approximately 1,800,000 households, 560,000 of them in Affected Areas. 40,000 households should have received letters offering a test from the NRPB.

On reading the leaflet what are the other 520,000 households likely to do? Take comfort and do nothing!

What has happened to the Government's commitment to 'Health of the úNation'? Radon has just been included in this.

I do not envy colleagues in the new Affected Areas. How can you advise householders when the advice from Government is so inconsistent. I suggest you read the Guides and leaflet very carefully. I, for my part, am unwilling to give out the leaflet 'Radon - you can test for it' when it contains such an irresponsible statement.

ENVIRONMENT POLICY

Steve Brown

Department of Environment, replies

Maurice Jones' letter raises important points concerning the Government's radon programme. But before turning to them I am pleased to reiterate our thanks to Local Authorities for their work in tackling radon. We look forward to working closely with Local Authorities in the future, particularly through the new DOE/Local Authority Radon Liaison Group, the creation of which was reported in Issue 9 of the Newsletter.

Parts of Maurice's letter however appear to be based on a misunderstanding. There is no reduction in the Government's commitment to its radon policy. On the contrary the changes we made last year are evidence of a re-invigorated approach with no reduction of financial resources. Resources are not, of course, unlimited and Central Government's initiatives need to be cost effective, just as is the case for Local Government.

The new targeted approach to radon free measurements introduced at the beginning of last year - where individual invitations are sent to individual households - is proving to be very successful. The February 1996 mailshot to the original five counties resulted in a 23% response rate, and the June mailshot to "new" areas in a 30% response rate. Last year's campaigns identified twice as many homes above the Action Level using this approach, per pound spent, than was previously

the case. And this approach is being extended such that by the end of this year all homes in areas of England with a greater than 5% probability of being above the Action Level will have been offered a free measurement.

Maurice takes particular exception to the wording in the DOE leaflet "You Can Test for It" which he feels will lead to complacency on the part of householders. The leaflet is designed for those whose homes are in areas with a lower probability of being above the Action Level and yet may be concerned and may wish to put their minds at rest. The leaflet simply seeks to make information easily available to those householders on how they can obtain radon measurements at a cost of about £35, but without seeking to pressurise them into doing so.

He questions whether this advice is responsible. Whilst radon does remain the biggest risk to air quality in dwellings, this is not the case for all dwellings even in NRPB designated radon affected areas (defined as areas where more than 1% of the homes are expected to be above the Action Level). With free measurements now being offered to all homes with a greater than 5% probability of being above the Action Level, those homeowners who may wish to pay for their own measurements will be living in areas where more than 95 homes in 100 are expected to be below the Action



Level and therefore will not be subjected to high levels of radon. It would be irresponsible of us to suggest otherwise: care must be taken in not giving the impression that all homes in radon affected areas have high levels of radon and that everyone who is exposed to radon is likely to contract lung cancer as a result.

The level of risk of contracting lung cancer from radon by someone living in an area where a few per cent of the homes are expected to be above the Action Level is equivalent to the level of risk that most of us encounter on a day-to-day basis as we follow our normal lives. I believe that those who live in these areas should take radon seriously, and evaluate what it means for them and their families. But they can take comfort from the fact that the risk they face from radon in their homes is probably no greater than the risk they face in other areas in life. And they can make their decisions, informed by the facts, accordingly.

Why not Remediate?

Jane Bradley, National Radiological Protection Board

Householders with radon concentrations above the UK Action Level are advised to install remedial measures to reduce their and their family’s radiation exposure. To find out how many people take this advice, and the reasons why many do not, NRPB sent questionnaires to around 10,000 householders in Cornwall and Devon whose houses had been tested and found to have high levels. A report on the results has just been published.*

Almost 50% of the householders returned their questionnaire. Disappointingly, only around 1000 of them had carried out some form of effective remediation. This is 10% of those sent a questionnaire, or 20% of those who replied. However, this is a significant increase on the 3-6% found earlier by Professor Lee (Environmental Radon Newsletter 4).

More encouraging was the type of remedy used, as around 300 householders had installed a radon sump, which has proved to be one of the most effective ways to reduce radon. On the assumption that the average efficiency for this method is 90%, the average reduction in their radon concentration was 700 Bq m⁻³

The costs quoted by householders for the different types of remedy varied from ‘minimal’ to around £6000, with over 75% of householders quoting installation costs of £1000 or less. The average cost per dwelling was £710, but half of the householders paid £300 or less.

Surprisingly the most costly remedy was to increase permanent natural ventilation of the house, which was chosen by around 400 householders despite the fact that it is not the most effective way of reducing the radon level. A cheaper and more effective option is to use a radon sump or to increase underfloor ventilation.

The great majority of householders who returned their questionnaire had not remediated. The main factor deterring them was cost: other reasons are given in the

table. Some thought that the risks from exposure to radon were not serious enough to act. This group included older householders and those with neighbours with lower levels. Clearly the risks need to be explained more fully, while taking care not to cause unnecessary alarm.

The conclusions from the survey were not very encouraging as it seems that only 10% to 20% of householders remediate effectively. However, the proportion is increasing and similar numbers of householders were still considering action at the time of the survey. With the recent downward trend in the cost of remediation, more householders may now be taking remedial action.

Reasons given for not taking remedial action	%
Too expensive	53
Not important for people of their age	28
Not convinced there is a serious risk from radon	27
Not convinced their house has a radon problem	23
Difficult to get advice on how to remediate	17
Difficult to find someone reliable to carry out work	15
Too busy recently	10
Moving house soon	8
Other reason	28
Still intend to take action	17

Note: the figures add up to more than 100% as many householders gave more than one reason.

*NRPB-M707 An analysis of responses to radon remediation advice. E J Bradley and J M Thomas. Available from the NRPB Publications Office

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