

nbpm cc BG



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Oddi wrth Ysgrifeddi Gwladol Cymru

From The Secretary of State for Wales

The Rt Hon Nicholas Edwards MP

27. January 1987

Nicholas

RADON IN HOUSES

at Har

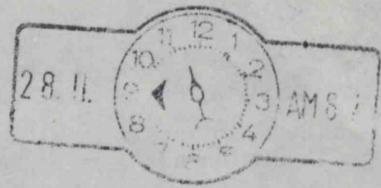
Thank you for your letter of 22 January and the draft statement you propose that William Waldegrave should make tomorrow. This is in line with what we agreed at H Committee and I am content.

/ I am copying this letter to the Prime Minister, Members of H Committee, Peter Walker, George Younger, Michael Jopling, John Wakeham, Bertie Denham and Sir Robert Armstrong.

Nicholas

The Rt Hon Nicholas Ridley MP
Secretary of State for the Environment

ENV. AFFAIRS : Radon in Houses Dec 86





THE MINISTER OF STATE

Prime Minister
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DEPARTMENT OF ENERGY
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The Rt Hon Nicholas Ridley MP
Secretary of State
Department of the Environment
2 Marsham Street
LONDON
SW1P 3EB

27 January 1987

Mr Nil.

RADON IN HOUSES

In Peter Walker's absence, I am replying to your letter of 22 January to the Lord President, enclosing the text of the Ministerial statement to be made on Tuesday.

I have no comments on the statement, but I am afraid that your proposed timing - the day after the Sizewell Report is published - could be unfortunate, and could well lead to confusion in the public mind. It would help to minimise the risks if you delayed your announcement until, say Thursday 29 January.

I have asked that my Press Office should liaise closely with yours in case any questions arise linking this subject with the civil nuclear programme or draughtproofing.

I am copying this letter to the recipients of yours.

*Yours
Alick*

ALICK BUCHANAN-SMITH

ENV. AFFAIRS: Radan Dec 86



nbpm



Minister of State for
the Environment, Countryside
and Planning

Department of the Environment
2 Marsham Street
London SW1P 3EB
Telephone 01-212 3434

cc: Bg

27 January 1987

Dear Joan,

RADON IN HOUSES

I enclose a final version of the statement on Radon in Houses which Mr Waldegrave is to make this afternoon. This incorporates comments received from H Committee colleagues on the draft circulated by my Secretary of State last Thursday.

I am copying this to the Private Secretaries to those who received that letter and to Andy Bearpark at No 10.

Yours sincerely,
Helen Ghosh

MRS H F GHOSH
Private Secretary

Miss Joan McNaughton



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Draft Statement

RADON IN HOUSES

1. With permission, Mr Speaker I wish to make a statement about measures to deal with the problems of naturally occurring radon gas in houses in some areas of the country.
2. Radon-222 is a naturally-occurring radioactive gas which comes out of the ground, particularly in and around areas of igneous rock such as granite. In the open air it is dispersed, but concentrations can build up in buildings. The gas decays into minute solid particles which, if breathed in, can be deposited on the surface of the lungs. It has been known for a long time that occupational exposure to radon in uranium mines is associated with an increased incidence of lung cancer. The potential problem of radon in houses was recognised in the 1970s, following research in Sweden. The issue was highlighted in the United Kingdom and the 10th Report of the Royal Commission on Environmental Pollution in 1984. In our response to that Report we stated that we would consider the need to take action once we received advice from the National Radiological Protection Board (NRPB) based on work they already had in hand. The NRPB have now completed their work on the identification of areas of higher than average radon. The Board has also considered the dose levels above which remedial action should be taken and have submitted their findings and recommendations. I have arranged for copies of their advice, along with copies of the advice which the Government has received from the Committee on the Medical Aspects of Radiation in the Environment (COMARE), to be placed in the Library of the House.
3. Both the NRPB and COMARE have advised that the available evidence strongly suggests that exposure to radon gas increases the risk of lung cancer. The risk increases the higher the level of radon and the longer the exposure continues. They therefore recommend that action should be taken to reduce the doses in existing dwellings with the greatest concentrations and to limit exposure in dwellings to be built in the future.

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They, and COMARE have made recommendations which we accept about the levels of radon above which precautionary action is advisable. The figures are 20 mSv per annum as an action level in existing houses with 5 mSv per annum as the design levels for new houses. These levels will be kept under review in the light of any further evidence that emerges about the effects of radon on health.

4. The Government intends to tackle the problem of identifying houses where such action is needed in 3 ways. First, the NRPB estimate that there are some 20,000 existing houses with radon concentrations high enough to give rise to doses of 20 mSv or more and that remedial action should be taken on these in due course. Most are likely to be located in Devon and Cornwall. To identify the houses with the highest levels, the Government is funding a substantial survey by the NRPB. This survey will take about 2 years, as measurements are needed over a relatively long period to obtain an accurate estimate of radon concentrations. Second, so that people who live where radon concentrations might be above or near the action level can find out the radon concentration in their houses even if they are not within the scope of the NRPB survey, the NRPB will be arranging a measurement service at no cost to those concerned. Third, in the remainder of the country we judge there is no need for special action and measurements will only be made at the expense of those who demand them. My Department is producing a leaflet, which will be made widely available in areas likely to have high radon concentrations. This will give full details of this service and other relevant advice to householders.

5. I want to stress that the risks from radon are assessed in terms of life-time exposure. There is therefore no need for drastic immediate measures to reduce levels. It is a matter of record that, in Devon and Cornwall, where radon levels tend to be higher than average, the death rate from lung cancer is lower than in many other parts of the country. The first step is to obtain an accurate measurement of the situation, so that the need for any remedial measures can be properly assessed. This may take up to a year per house.

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6. The responsibility for remedial measures in houses must rest with the house-owner or the landlord in the case of both public and private rented accommodation. The Government is prepared to consider offering financial assistance towards the costs of remedial work to the most needy owner occupiers.

7. Research work has already been undertaken both in this country and elsewhere on the type of remedial measures that may be appropriate, but the movement of radon gas into and within buildings is complex. Considerable further work is required. The Government intends to fund a 2-year research programme on remedial and preventive measures to be undertaken by the Building Research Establishment (BRE). During the course of this programme, BRE will produce Guidance Notes, and these will be added to as we learn more.

8. For the future, we will make changes to the building regulations aimed at preventing the problem occurring in new houses. We propose to provide guidance, on practical measures which builders in particular areas may need to take.

9. We shall remain in close touch with work done abroad on this problem. Meanwhile, the measures I have outlined demonstrate that we are taking the necessary steps to identify the extent of the problem, and to ensure that people in affected areas know what to do about it.



Department of Employment
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The Rt Hon Nicholas Ridley AMICE MP
 Secretary of State for the Environment
 Department of the Environment
 2 Marsham Street
 London SW1P 3EB

26 January 1987

Dr. Rad.

RADON IN HOUSES

REQUESTED

I have read your letter of 22 January 1987 to Viscount Whitelaw and your draft Parliamentary Statement. I am generally content but do have the following comments:

- a) At paragraph 2 the reference to problems in mines should be softened by combining the 4th and 5th sentences to read "The presence of radon in mines has been known of for a long time, but the potential"
- b) In the 5th paragraph, to lessen alarm, I suggest you might add after the 2nd sentence: "It is worth remembering that the South West is amongst the areas of the country which show the very lowest incidence of cancer. The risk of serious disease or death from Radon is quite miniscule when set against the overall incidence of cancer from all causes."

The next sentence in the draft can then be moved to begin the 6th paragraph.

I have considered possible ways in which you might attempt an explanation in paragraph 3 of the relationship between the new action and design levels and the action level for places of work of 15 mSv under the Ionising Radiations Regulations. I am unable to come up with any useful formulation of words so I am content that you do not address the issue. The places of work level is based on international regulations and an EC directive. I do not know why the NRPB has chosen a new and different action level for houses. However I am advised that in scientific terms the difference between 20 mSv and 15 mSv is not significant.

I am copying this letter to the recipients of yours.

K. Clarke
 KENNETH CLARKE

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cc/BA



MINISTRY OF DEFENCE WHITEHALL LONDON SW1A 2HB

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MO 18L

26th January 1987

Dear Nicholas,

RADON IN HOUSES

WITH AB?
Thank you for sending me a copy of your letter of 22nd January. I have only one small suggestion to make on the draft attached to your letter: I wonder if the opening of the fifth paragraph might be slightly expanded, in view of public sensitivities about radiation-related issues, to clarify that the short-term risk is less, as follows:

"I want to stress that the risks from radon are assessed in terms of a whole lifetime of continuous exposure; the relative risk for shorter times is proportionally less and therefore there is no need for alarm or for drastic immediate measures to reduce levels."

I am sending copies of this letter to the Prime Minister, members of H Committee, Peter Walker, Michael Jopling, John Wakeham, Bertie Denham and to Sir Robert Armstrong.

Yours ever,
George
George Younger

The Rt Hon Nicholas Ridley MP

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ENV. AFFAIRS

RADON IN HOUSES

12/16



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Chancellor of the Duchy of Lancaster

CABINET OFFICE,
WHITEHALL, LONDON SW1A 2AS

Tel No: 270 0020
270 0296

23 January 1987

Brian Leonard Esq
Private Secretary to the
Secretary of State for the
Environment
Department of the Environment
2 Marsham Street
LONDON
SW1P 3EB

ms.
Dear Brian,

RADON IN HOUSES

The Chancellor of the Duchy was grateful for the copy of your Secretary of State's letter of 22 January to the Lord President, which enclosed a draft Parliamentary statement.

The Chancellor thinks that mention should be made in the statement of the relative low mortality rates in the South-West attributable to cancer. This will help to re-assure those in the area that the situation is not one which should give rise to precipitate alarm. He thinks this would best be incorporated into paragraph 5 of the draft.

The Chancellor has one further small amendment. In the fifth line of paragraph 2, for "if you breathe them in," substitute "if breathed in".

I am sure that you will be considering the terms of any additional briefing which is to be made available on Tuesday. I should be grateful if we could receive copies of this when they are available.

I am sending a copy of this letter to the private secretaries to the Prime Minister, members of H Committee, Secretary of State for Energy, and Defence, Minister for Agriculture, Chief Whips in both Houses, and to Sir Robert Armstrong.

with PABP
Yours Sincerely,
Andrew Lansley

ANDREW LANSLEY
Private Secretary

ENV. AFFAIRS Radon in Houses

12 86



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2 MARSHAM STREET
LONDON SW1P 3EB
01-212 3434

The Rt Hon The Viscount Whitelaw CH MC
Lord President of the Council
Privy Council Office
Whitehall
LONDON
SW1

My ref:

Your ref:

22 January 1987

Prime Minister²

Dear Lord President,

RADON IN HOUSES

We have agreed that there should be a Parliamentary statement next Tuesday about radon in houses, and the action that we propose to take to deal with the problem. I think it would be right for William Waldegrave to make this statement and for Roger Skelmersdale to repeat it in the Lords.

I should be grateful if you and other recipients of this letter could let me have any comments on the attached draft by lunch on Monday 26 January.

I am copying this letter to the Prime Minister, members of E Committee, Peter Walker, George Younger, Michael Jopling, John Wakeham, Bertie Denham and to Sir Robert Armstrong.

Yours sincerely

JHC Conard. Private Secretary

PP.

NICHOLAS RIDLEY

(Approved in draft by the Secretary of State and signed in his absence)

Draft Statement

RADON IN HOUSES

1. With permission, Mr Speaker I wish to make a statement about measures to deal with the problems of naturally occurring radon gas in houses in some areas of the country.

2. Radon-222 is a naturally-occurring radioactive gas which comes out of the ground, particularly in areas of igneous rock such as granite. In the open air it is dispersed, but concentrations can build up in buildings. The gas decays into minute solid particles which, if you breathe them in, can be deposited on the surface of the lungs. It has been known for a long time that occupational exposure to radon in mines is associated with an increased incidence of lung cancer. The potential problem of radon in houses was identified in the mid-1970s, following research in Sweden and the United Kingdom, and was subsequently highlighted in the 10th Report of the Royal Commission on Environmental Pollution in 1984. In our response to that Report we stated that we would consider the need to take action once we received advice from the National Radiological Protection Board (NRPB) based on work they already had in hand. The NRPB have now completed their work on the identification of areas of higher than average risk. The Board has also considered the dose levels above which remedial action should be taken and have submitted their findings and recommendations. I have arranged for copies of their advice, along with copies of the advice which the Government has received from the Committee on the Medical Aspects of Radiation in the Environment (COMARE), to be placed in the Library of the House.

3. Both the NRPB and COMARE have advised that the available evidence strongly suggests that exposure to radon gas and the radon daughter products that result from the decay of the gas increases the risk of lung cancer. The risk increases the higher the level of radon and the longer the exposure continues. They therefore recommend that action should be taken to reduce the doses in existing dwellings with the greatest concentrations and to limit exposure in dwellings to be built in the future.

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They, and COMARE have made recommendations which we accept about the levels of radon above which precautionary action is advisable. The figures are 20 mSv per annum as an action level in existing houses with 5 mSv per annum as the design levels for new houses.

4. The Government intends to tackle the problem of identifying houses where such action is needed in 3 ways. First, the NRPB estimate that there are some 20,000 existing houses with radon concentrations high enough to give rise to exposures of 20 mSv or more and that remedial action should be taken on these. Most are located in Devon and Cornwall. To identify the houses with the highest levels, the Government is funding a substantial survey by the NRPB. This survey will take about 2 years, as measurements are needed over a relatively long period to obtain an accurate estimate of radon concentrations. Second, so that people who live where radon concentrations might be above or near the action level can find out the radon concentration of their houses even if they are not within the scope of the NRPB survey, the NRPB will be arranging a measurement service at no cost to those concerned. Third, in the remainder of the country we judge there is no need for special action and measurements will only be made at the expense of those who demand them. My Department is producing a leaflet, which will be made widely available in areas likely to have high radon concentrations. This will give full details of this service and other relevant advice to householders.

5. I want to stress that the risks from radon are assessed in terms of life-time exposure. There is no need for alarm or for drastic immediate measures to reduce levels. The first step is to obtain an accurate measurement of the situation, so that the need for any remedial measures can be properly assessed. This may take up to a year per house.

6. The responsibility for remedial measures in houses must rest with the house-owner; the landlord in the case of both public and private rented accommodation. For owner occupiers, the Government believes there should be help for those who are unable to afford the cost of what needs to be done.

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7. Research work has already been undertaken both in this country and elsewhere on the type of remedial measures that may be appropriate, but the movement of radon gas into and within buildings is complex. Considerable further work is required. The Government intends to fund a 2-year research programme on remedial and preventive measures to be undertaken by the Building Research Establishment (BRE). During the course of this programme, BRE will produce Guidance Notes, and these will be added to and amplified as the breadth and depth of knowledge increases.

8. For the future, we will make changes to the building regulations aimed at preventing the problem occurring in new houses. We propose to include guidance in the Approved Documents, which support the regulations, on practical measures which builders may need to take to prevent the build-up of radon in new dwellings in areas where otherwise the action level suggested by NRPB is likely to be exceeded.

9. Surveys of radon similar to that done by NRPB are being undertaken in other counties. We shall be keeping in close touch with work done abroad on this problem. Meanwhile, the measures I have outlined demonstrate that we are taking the necessary steps to identify the extent of this problem, and to ensure that people know what the situation is and what to do about it.

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ccBG



Prime Minister ².

2 MARSHAM STREET
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01-212 3434

My ref:

Your ref:

The Rt Hon The Viscount Whitelaw CH MC
Lord President of the Council
Privy Council Office
Whitehall
LONDON
SW1

17 December 1986

Dear Lord President,

RADON IN HOUSES

Radon is a naturally-occurring radioactive gas, which emanates from the ground. In this country, it is particularly prevalent in Devon and Cornwall. In the open air, it is dispersed, but concentrations can build up in buildings, and its decay products can result in a significant radioactive dose to people in houses, with consequent risks to health. The problem is greater in houses than other buildings because of the high proportion of their life which people can spend in their houses. About 200,000 houses in the UK are estimated to have radon levels which give rise to a dose of radiation of over 5 mSv (milliSieverts) per year, compared with the International Commission on Radiological Protection's principal limit for a member of the public of 1 mSv per year from artificial sources of radiation. More information about radioactive doses from other sources, and the risks associated with them, are in Annex A.

The Royal Commission on Environmental Pollution drew attention to the problem of radon in houses in 1984. In response, the Government accepted that priority should be given to treating existing houses with high concentrations of radon, but we said that before taking action we should await further work being done by the National Radiological Protection Board (NRPB) and BRE.

We have now received advice from NRPB, which is that action should be taken to reduce exposure to radon in existing dwellings where the radioactive dose is above 20 mSv per annum, and changes should be made to building procedures where necessary to keep radon levels in future dwellings below 2 mSv. NRPB estimate that there are about 20,000 existing houses above this action level of 20 mSv, and about 1 in 100 new houses may need special measures to keep the radon level below the 5 mSv level. We have also had advice from the Chief Medical Officer of Health reporting that he accepts the advice of COMARE (the Committee on the Medical Aspects of Radiation in the Environment) that exposure to radon in some houses must be considered a public health problem, and endorsing NRPB's action levels as a reasonable level at which to start to deal with the problem, although COMARE also stressed the need for flexibility and the need for levels generally to be kept as low as practicable.

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Many people already have quite understandable fears about radioactivity, which have increased as the result of Chernobyl. To avoid the risk of a major public health scare from the very high exposures to radioactivity resulting from radon, I am convinced we must give the public clear and unequivocal advice. We must also state plainly that it is primarily the duty of house owners to deal with this problem in their own houses, but we should make clear now the extent to which the Government accepts the responsibility for identifying and giving advice about how to deal with problem houses, and our position on whether, if at all, public funding will be made available to help with the remedial measures. There is no question of actual expenditure on remedial measures being necessary for a year or two until accurate measurements of radon levels are completed. But it is far preferable for us to make our position clear now than to be pushed into ever more expensive action as the result of public pressure in a year or so's time.

I should therefore like to seek colleagues' agreement to the following action:

(i) Government endorsement of the NRPB's action levels and the advice from COMARE;

(ii) an NRPB survey funded by DOE (costing £90k) of the 3,000 houses in Devon and Cornwall likely to have high radon levels (over 50 mSv). Because of the need to take individual measurements over as long as a year, this would take up to 2 years;

(iii) a service for householders worried about radon to have the radon level of their house measured by the NRPB. This costs up to £45 per house, and I think it inevitable that this should be publicly funded in all areas where NRPB consider the house could be above or near the 20 mSv action level. This could cost in the region of £1m over 2 years;

(iv) a 2-year Government-funded research programme costing approximately £350,000 designed to identify appropriate remedial measures;

(v) once the remedial measures have been identified consultation on the changes which would be needed to the guidance supporting the Building Regulations to recommend measures that should be taken in new construction to prevent high radon concentrations;

(vi) a clear statement now that the responsibility for funding remedial measures should rest with the owner-occupier or the landlord, though the possibility of individuals receiving some Government help if they could not otherwise afford the necessary works should not be ruled out. No expenditure on remedial works is likely to be needed before 1988/89, but the costs of remedial measures can vary substantially from house to house, and range from £100 in simple cases to as much as £10,000 where severe action is needed. The average cost is likely to be about £2,000 per house, so the total costs of remedial action in houses above

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the action level could be as much as £50m, spread over 2 or 3 years, though only a small proportion would need public funding if this were confined to hardship cases as suggested above. The precise method for such grant aid would need to be settled. A possible route is the home improvement grant system, if the new means tested and targetted system is in place by then.

I should be grateful to know if colleagues accept that these measures are appropriate to ensure that we are seen to be taking the necessary action to deal with this environmental problem. I am concerned that anything less could lead to significant criticism that we were failing to recognise and deal adequately with this issue, and so force us to concede even more Government help at a later stage.

FINANCIAL PROVISIONS AND OTHER EFFECTS

As indicated, I recognise that there are financial implications from these proposals both in the funding of the NRPB measurement service, which will cost my Department about £1m spread over 1987/88 and 1988/89, with the possibility of very small expenditure in Scotland and Wales, where the problem from radon is almost insignificant, and if Government help is provided for remedial measures. As indicated in paragraph 5(vi) above, expenditure on remedial measures will not be required before 1988/89. It is difficult to assess the value for money of a measure of this kind, though radon is currently estimated to be causing of the order of 8-900 cancer deaths a year, although there are inevitably uncertainties in risk estimates of this kind. The aim of my proposals is to identify the number of houses with high radon levels, and to ensure that remedial measures are being taken. This will be monitored by my Department in conjunction with the NRPB.

The Chief Secretary has made it clear that he would expect the costs of the survey (£90,000) and the research into remedial works (£350,000) to be met from within my existing provisions. He also considers that the costs of the advice service for householders (£1m over 2 years) should be paid for by the users themselves. His main concern however is with my proposal that limited Government assistance with the costs of remedial works could be given to the needy. He has pointed out that such a commitment - for which there is no PES provision - would be open-ended. It is still unclear how many homes are affected, what remedial action would be effective and how much it would cost. In any case such a commitment could establish a precedent which might be used by others to seek Government support to deal with other naturally occurring hazards.

There is a marginal burden on the construction industry from the requirement to take special measures in affected areas to reduce radon concentration. These cannot be costed until BRE have completed their research.

There are no EEC implications, though other EEC countries are also undertaking surveys to establish radon concentration in houses.

I am anxious to make a public statement quickly before the content

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of the NRPB and COMARE advice become publicly known. A Labour MP has already tabled an Early Day Motion. I should therefore be grateful for your agreement, and that of H colleagues and Peter Walker and Michael Jopling to whom I am copying this letter, by 7 January.

Yours sincerely

Isobel R. Spivey (Private Secretary)

NICHOLAS RIDLEY

(Approved by the Secretary of State and signed in his absence.)

RADIOACTIVE DOSES FROM RADON COMPARED WITH THOSE FROM OTHER SOURCES

ICRP recommended lifetime dose to a member of the public from artificial sources converted to an annual average	1 mSv*
ICRP maximum recommended dose to a member of the public from artificial sources in any one year	5 mSv
200,000 dwellings are estimated to give rise to doses of radon of 5 mSv per year or more	
Proposed NRPB action level for controlling radon ingress in new houses	5 mSv
50,000 dwellings are estimated to give rise to doses of radon of 10 mSv per year or more	
HSE's recommended action level for radon in the workplace	15 mSv
20,000 dwellings are estimated to give rise to doses of radon of 20 mSv per year or more	
Proposed action level for remedial action to reduce radon levels in existing houses	20 mSv
HSE's maximum permitted annual dose of artificial radiation to a worker in the nuclear industry	50 mSv
2,000 dwellings are estimated to give rise to doses of 50 mSv per year or more the highest recorded level being 390 mSv per year.	

*The Sievert, or milliSievert (mSv) is the measure for assessing the harmful effects of radiation.



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