



Mr Heseltine wants to set the record straight on test drillings related to radioactive waste disposal. This is a sensitive area, but an announcement may help progress in the exploration.

Agree written reply for next week?

MAP 207/111

2 MARSHAM STREET  
LONDON SW1P 3EB

My ref:

Your ref:

20 July 1979

Dear Mike

Yes - it is a very interesting statement - but I doubt whether it will allay fears!  
D.T.

You will be aware of the public opposition which the United Kingdom Atomic Energy Authority are encountering to their programme of test drillings to examine the suitability of different geological formations for the disposal of long-lived radioactive waste. Their work is part of an extensive programme into three possible disposal options - deep underground or on, or under, the seabed. Research is essential to enable the merits of the three options to be compared and assessed, since no decision to use any of the three has been taken.

My Secretary of State has agreed the attached statement with the Secretaries of State for Scotland, Wales and Energy, which seeks to place the UKAEA's test drillings in their proper context. It makes it clear that at this stage no radioactive waste will be used; that drilling sites will be widely spread throughout Great Britain; that any proposal to drill will need planning permission; and that the process cannot go further, to use actual waste, without a further permission. It would be helpful to have the statement on the record before the first planning inquiry, recently announced by the Secretary of State for Scotland, takes place in the autumn.

Because the statement is a lengthy one, my Secretary of State proposes to reply by written Parliamentary Question. Unless you see any objection, the reply will be given in the terms of the attached draft on Tuesday 24 July.

I am copying this to the Private Secretaries to the Secretaries of State for Scotland, Wales and Energy, the Chancellor of the Duchy of Lancaster and the Chief Whip.

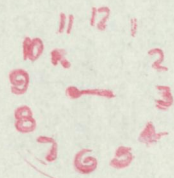
Yours sincerely  
Paul Bristol

P N BRISTOW  
Private Secretary

Mike Pattison Esq  
10 Downing Street

COMMISSION

19 JUL 1979



DRAFT ANSWER: To ask the Secretary of State for the Environment, whether he will make a statement about the geological research programme connected with the disposal of high level radioactive waste.

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1. Yes. I welcome this opportunity to set out our views on present and future research connected with the disposal of high level radioactive waste. I refer particularly to the geological research programme involving the drilling of test boreholes in certain areas of the United Kingdom. I must make clear that this is not a programme disposing of radioactive waste but is purely research into whether it is feasible.

2. A principal element in my responsibility for radioactive waste management policy, which I share with my rt hon Friends the Secretaries of State for Scotland and for Wales, is to ensure that there is adequate research and development on methods of disposal of wastes arising from the civil nuclear power programme. Wastes which cannot be disposed of at present are safely stored, but the long-term aim is to identify safe disposal routes.

3. Research on one of the major options for the treatment of high-level waste for safe disposal - vitrifying the waste in glass blocks - is well advanced in the United Kingdom. A plant to manufacture these blocks should, on current plans, be in operation by about 1990. The blocks would probably need to be stored in water- or air-cooled vaults for some years, but after cooling they would be suitable for disposal. Several methods of disposing of them safely are being researched, but have yet to be demonstrated.

4. There are three possible methods of disposal: on the bed of the deep ocean, into stable geological formations on land, or under the ocean bed. No judgement can be made between these methods until more is known about them. The Government are accordingly undertaking a comprehensive research programme into each of these options. The work so far supports the view that a safe disposal route can be identified but at this stage there is

no commitment to any one method in preference to the others. The aim is to have a demonstration facility, or facilities, for one or more of the methods in operation during the 1990s with a view to having an actual disposal facility in operation early in the next century.

5. Disposal of high level radioactive waste is of world-wide interest. Research and exchanges of information are co-ordinated internationally through the International Atomic Energy Agency, the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development, and the European Economic Community. The United Kingdom plays a full part in these activities. So far, research has been mainly directed towards determining the feasibility of disposing of high level waste in formations deep below the land surface but there are now signs of increasing international interest in the possibility of ocean disposal, and the United Kingdom is initiating an expanding research programme to assess the sea-bed options.

6. The United Kingdom research programme into the feasibility of disposing of high level waste into land formations is already well under way. Desk studies carried out by the Natural Environment Research Council at its Institute of Geological Sciences indicate that potentially suitable rocks lie under about 16% of the land area of the country. Specific areas, listed below, have been identified for research purposes so that information can be collected about a wide range of rocks. The next step is a programme of geological research involving test drillings to examine fully the properties and characteristics of different geological formations in situ.

7. So far the programme has concentrated on areas containing hard crystalline rock, and it is intended that the next group of planning applications for drilling test boreholes will also include areas of clay or salt or both. Only when full information is available, and has been properly evaluated, will it be possible to judge whether or not disposal deep underground is an option to be pursued; and, if it is, which of the rocks would be most suitable.

8. I emphasise the importance of test borings for these purposes. The United Kingdom Atomic Energy Authority has so far made four planning applications under the Town and Country Planning Acts to carry out preliminary geological investigations involving the sinking of test boreholes in selected areas. One application, in Caithness, has been granted; one in the Kyle and Carrick District of Strathclyde Region, and two in Northumberland, have been refused. The Authority has submitted appeals against the refusals in Northumberland and Kyle and Carrick, and my rt hon Friend the Secretary of State for Scotland has recently announced the setting up of a public local inquiry into the Authority's appeal in the Kyle and Carrick District. Appeals will of course be decided on their merits, after the most careful assessment of all the evidence. I would stress that these applications concern operations which are solely for geological investigation. There is no question of carrying out experiments with radioactive wastes in this phase. Nor have the Government any commitment to disposal of waste underground rather than on, or under, the sea-bed. There should be no permanent environmental effect of any kind from the geological research.

9. These four applications relate to the first few of about fifteen areas which have so far been identified in England, Scotland and Wales as likely to provide useful information about the structures and characteristics of the relevant geological formations. The following list indicates in general terms, and without attempting to establish any priorities, the areas and types of geological formation identified as suitable for further investigation in this first stage. Other areas may be identified in the future for exploratory investigation and added to the list. On the other hand, some of the areas identified may prove unsuitable for further examination. All exploratory work, including test borings, in any area, whether or not on land owned by the Crown or by a Government Agency, will be the subject of appropriate planning procedures and publicity will be given to the proposals.

10. When research has been conducted for about ten years the Government expect to have obtained sufficient information to enable decisions to be taken about the development of demonstration disposal sites underground or on, or under, the ocean bed. These would be fully engineered and in the case of land facilities would involve the construction of access shafts deep into the selected formations. There is no question of each of the fifteen areas chosen for the geological research programme being developed to this stage. At the most, two or three sites would be selected. Vitrified waste would be placed in the demonstration disposal sites so that detailed measurements and tests under operating conditions could be made. For the first time radioactive wastes would be used; at the end of the tests the wastes could be recovered if required.

11. Any proposals for demonstration disposal of radioactive waste deep underground would be the subject of separate appropriate planning procedures which would investigate thoroughly the effect of the site on the environment. If, in the event, it were decided to go ahead with the development, its operation would be studied over a further period of perhaps 10 years. At the end of that time, underground disposal methods would be evaluated side by side with alternative disposal methods on or under the ocean bed. Decisions could then be taken whether and how to proceed with a full-scale disposal operation in the next century.

PROVISIONAL LIST OF AREAS IDENTIFIED AS SUITABLE  
FOR INVESTIGATION

REGION OR COUNTY OR ISLAND AREA	GEOLOGICAL ROCK OR FORMATION
Cheshire	Hybrid Clays and Salts
Cumbria	Granite, Argillaceous (clay)
Grampian	Basic Igneous Intrusion
Gwynedd/Powys	Argillaceous (clay)
Highland	Lewisian Gneiss, Granite Moine Granulites, Migmatised Moine Granulites
Leicestershire/Nottinghamshire	Argillaceous (clay)
Northumberland	Granite
Somerset	Hybrid Clays and Salts
Strathclyde	Granite
Western Isles	Lewisian Gneiss
Worcestershire	Argillaceous (clay)

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Home Affairs

10 DOWNING STREET

*From the Private Secretary*

23 July 1979

The Prime Minister has seen your letter of 20 July, with which you enclosed a draft statement designed to place the UK AEA's test drillings in their proper context.

The Prime Minister agrees that it would be useful to set on record the status and purposes of these test drillings, and she is therefore content that this statement should be made as an answer to a written Parliamentary Question this week. She has, however, commented that it would be over-optimistic to expect this to allay all the fears.

I am sending copies of this letter to Kenneth MacKenzie (Scottish Office), George Craig (Welsh Office), Bill Burroughs (Department of Energy), John Stevens (Office of the Chancellor of the Duchy of Lancaster) and Murdo Maclean (Chief Whip's Office).

M. A. PATTISON

P.N. Bristow, Esq.,  
Department of the Environment.

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