

Isle of Man Government

Question	Response
Letter	<p>A submission by Isle of Man Government's Department of Environment, Food and Agriculture (DEFA) to the Public Consultation by the West Cumbria Managing Radioactive Waste Safely (MRWS) Partnership</p> <p>The West Cumbria MRWS Partnership ('the Partnership') requested views on proposals for the further investigation of the potential in West Cumbria for geological disposal of radioactive waste. More specifically the Partnership asked for comment on their 'initial opinions on a range of issues', as set out in the public consultation document. Having read the consultation document, together with several supporting documents (on the Partnership's website), I am pleased to make this submission on behalf of the Isle of Man Government.</p> <p>In response to Question 1 – the Partnership's initial opinions on geology:</p> <p>Firstly, I can say that Isle of Man Government does not wish to comment on the 'Screening Report', prepared by the British Geological Survey, instead wishing to comment only on the issue of 'suitability of geology'.</p> <p>On the geology issue, I shall begin by referring to what I understand is the stated position of the advisory Committee on Radioactive Waste Management (CoRWM), regarding current knowledge to assess the suitability of West Cumbria for disposal of nuclear waste. Presently, I believe the CoRWM 'view is that. At this stage in the MRWS process, it is not known whether or not there are suitable geologies in West Cumbria'. [Ref.1]</p> <p>I am also aware that the Partnership has received additional information in support of CoRWM's view, from FWS Consultants Limited. I note that in their published correspondence FWS Consultants report on their 'brief discussions' with the British Geological Survey, which they claim indicates that West Cumbria does have an 'area of potentially suitable sedimentary formations'. [Ref.2]</p> <p>Consequently in view of the aforementioned advice, I note the Partnership's 'initial opinion that there is enough possibly suitable land to make further progress worthwhile.' [Ref.3]</p> <p>Nevertheless, as the Partnership will know, that seemingly reasonable statement by CoRWM continues to be a matter of contention with certain independent geologists; the Committee's opinion having been challenged most prominently by Professor David Smythe (Emeritus Professor of Geophysics, University of Glasgow). [Ref.4]</p> <p>I am convinced that Professor Smythe's submissions to the Partnership do raise important questions regarding the geology and hydrogeology of West Cumbria. Based on published geological data, the Professor's assertion that West Cumbria is an area with a complex and faulted geology seems to me an entirely reasonable comment. Similarly, the proximity of the Cumbrian mountains would also appear to have significant consequences for the hydrogeology of West Cumbria, as they could drive underground water movement through the potential repository host rocks, towards the sea.</p> <p>Such major issues, which are contested in the exchange of published letters between Professor Smythe and the geologist Dr Dearlove (FWS</p>

Consultants Ltd) seem, at least to my reading, to be issues as yet unresolved. [Refs. 5,6,7]

Additionally I would consider of relevance to the debate, the critical review of Professor Smythe's evidence by the geologist Dr Tim McEwen, who concedes he has 'some sympathy with some of Smythe's comments' on the same issues:

West Cumbria's complex geology

'.. it would certainly be easier to develop a convincing safety case for a repository located in a simpler geological environment' [Ref.8]

The Cumbrian mountains

'It is true that the hydraulic gradients in much of west Cumbria are relatively high. Smythe however places too much emphasis on these gradients... and this is not sensible'. [Ref.8]

Although Professor Smythe's view that there is already sufficient geological information to discount the entire West Cumbrian region, may be considered an extreme interpretation of the existing geological data, he has to my mind made a forceful case, suggesting that his main assertion will likely prove correct.

Therefore after due consideration of the evidence made available by the Partnership, and the arguments presented for and against a West Cumbrian location to date, Isle of Man Government is of the opinion that there is only a weak case for the further investigation of West Cumbrian geology, to assess its suitability for a nuclear waste repository.

In response to Question 2 – the Partnership's initial opinions on safety, security, environment and planning:

If I may now offer some brief comment on the matter of the Nuclear Decommissioning Authority (NDA) proposals for a 'research programme on geological disposal' and more specifically the review of that programme, by Professor Stuart Haszeldine (Edinburgh University, School of GeoSciences). [Ref.9]

Isle of Man Government has noted the critical comment from Professor Haszeldine on issues such as: the sequencing of tasks to be undertaken, the assumptions being made as to the required timescale to find solutions to a number of significant technical challenges, and also the availability of technology by which they could be overcome. [Refs 9,10] Moreover, having also considered the NDA's response to Professor Haszeldine's review of their proposed research programme [Refs.11,12], Isle of Man Government remains unconvinced that all of the repository performance problems can be resolved in the required timescale.

In summary, whilst the UK Government has stated that it will only construct the geological repository if a safety case can be approved by the nuclear regulatory authorities, there remains the question of the likelihood of a suitable location being found in West Cumbria. Having now read the Consultation document together with the submissions made by opponents of further investigation in West Cumbria, I have been persuaded to the view that there is a high degree of uncertainty over the potential suitability of West Cumbria. Similarly for the reasons I have stated in this submission, Isle of Man Government is strongly of the opinion that west Cumbria is unlikely to be a suitable location for geological disposal of nuclear

waste.

Lastly, in the event that the Partnership does make a 'final recommendation' to their communities, to enter into the siting process for the geological disposal facility, Isle of Man Government would nevertheless wish to be informed of subsequent developments. Therefore, I very much hope that my Department can maintain its liaison with the Partnership, or indeed any successor organisation (e.g. Community Siting Partnership), as may be established to involve the wider local interests, beyond the host community.

References

Ref.1 Committee on Radioactive Waste Management, Letter from CoRWM Chairman Prof R. Pickard to Prof Smythe, 1st Jun 2011

Ref.2 Dearlove J. Overview of Professor David Smythe's rebuttal of CoRWM's views, Letter from FWS Consultants to West Cumbrian MRWS Partnership, 13th May 2011

Ref. 3 West Cumbria MRWS Partnership, Public consultation document, November 2011 to March 2012, page 34

Ref. 4 Smythe D. Why a deep nuclear waste repository should not be sited in Cumbria: a geological review. (15 pages and appended maps and diagrams) 12th April 2011

Ref. 5 Dearlove J. Requested response to Professor Smythe's papers, Letter from FWS Consultants to West Cumbria MRWS Partnership, 26th October 2011

Ref. 6 Smythe D. Response to letter submitted to MRWS:Cumbria by Dr J Dearlove, 16th September 2011

Ref. 7 Smythe D. Response to letter submitted to West Cumbria MRWS by Dr J Dearlove dated 26th October 2011, 7th December 2011

Ref. 8 McEwen T. Comments on David Smythe's letter (10 pages), Tim McEwen Consulting May 2011

Ref. 9 Haszeldine, R.S. Review of research on geological disposal of radioactive waste proposed by the UK Nuclear Decommissioning Authority document 146, March 2011

Ref.10 Haszeldine, R.S. Reply to the NDA response to MRWS paper 146, 22nd May 2011

Ref.11 Nuclear Decommissioning Authority, Geological Disposal, Further information on R&D for West Cumbria MRWS Partnership Paper no. 146, March 2011

Ref. 12 Nuclear Decommissioning Authority, Geological Disposal, Further information on R&D for West Cumbria MRWS Partnership, July 2011

