
From:
Sent: 06 June 2013 15:25
To: radioactivewaste (DECC)
Subject: Call for Evidence - MRWS: Review of the Siting Process for a Geological Disposal Facility

Dear MRWS Team,

Please find below my submission in response to your open consultation on the MRWS siting process for the GDF.

I present these views in an independent, personal capacity.

The MRWS GDF siting approach adopts what is widely considered internationally to be best practice in terms of putting involvement and voluntarism in prime position. Although MRWS has been slow-moving and so far unsuccessful, this is not a reason to jettison these important principles. Although volunteer-based GDF siting has taken NUMO (Japan) more than 10 years so far, with no result yet. Canada is moving forward with some success, using a broadly similar approach. There are also positive experiences in several European countries. My first conclusion is that the fundamental basis of MRWS should be retained and the emphasis should be on enhancing it, rather than making significant changes.

I believe this is an opportune time to consider how to build on the basic principles to make the process more dynamic and ultimately effective. This will require more focus than a Government department directed process can realistically be expected to generate. It requires a champion organisation that has the authority to promote the GDF and its essential place in the energy infrastructure of the nation. Since carrying out the essential consultations and establishing a workable process, Government has been a passive promoter and NDA's RWMD has been able to interact with interested parties only in a responsive fashion. This has proved unsatisfactory to many involved in the process. A similar situation, with the Government holding all the authority without fully exercising it and the waste management agency unable to be proactive, dampened the whole process in Japan for many years and has still not been properly resolved. In short, the GDF siting and development process needs to be actively marketed to and negotiated with prospective host communities by an organisation that can speak with absolute confidence and authority. NDA's RWMD is the only organisation with the knowledge and ultimate remit to fill this role.

As champion, RWMD needs an open platform and the locus from which to answer any and every question. This has been impossible to date and criticisms that I have heard from some key players in Cumbria about the lack of information and clarity on topics such as economic benefits, GDF options and alternatives, programme staging details, inventory uncertainties etc., which would have enabled a mature dialogue to take place, seem justified.

The champion needs a firm platform and the ability to discuss flexibly with potential host communities. In this respect it would be helpful if Government spoke with conviction and enthusiasm from ministerial level

about the national requirement for geological disposal and ensured that the resources and legal basis are functional and not inappropriately constrained. Government could then step back until such time as well-characterised solutions have emerged to a point where a decision can be taken. Part of this support would be to promote the concept that one or more GDFs are part of the UK's future national energy policy infrastructure – they are not just for legacy wastes. The GDF programme will span at least the next 50 to 100 years, during which time both the national and global nuclear power landscape will change significantly. For example, practical and policy considerations on the resource potential of used nuclear fuel may change as a result of international developments in nuclear energy supply. We cannot be sure today about the materials that the UK will wish to dispose of over the rest of this century, or even when we might wish to dispose of some of them. Consequently, flexibility will be needed in considering GDF inventories, which wastes to dispose of when and how one or more GDFs might be brought on line. This also has to be tailored to the siting environments that will emerge from MRWS. There are advanced solutions available worldwide for any of the routes that might be taken by the UK and RWMD needs to be able to discuss these matters freely and openly.

An acknowledged willingness to be flexible in MRWS staging would also be helpful, adapting the technical staging to the technical differences between potential sites/communities. MRWS Stage 4 needs to be able to adapt its investigation and analysis work to the different geological environments that may come forward and to the different site characteristics. For example, a flexible programme might wish to target certain geological indicators early for some potential siting locations, with limited, targeted surface or borehole investigations. Moving directly into large-scale site investigations may not always be the most appropriate way forward. The MRWS programme, as established in 2008, identified only the coarse stages that will be required – it now needs more texture and options. There will be alternative ways forward, depending on the locations that emerge.

A fundamental consideration today is whether to permit an additional pathway in MRWS, where RWMD would express preferences for the geological and geographical environments in which they would work. This would not replace the open volunteer process, but would be an extension to it, where RWMD continued to respond to any volunteers that come forward via the existing mechanisms of MRWS, but could simultaneously focus special efforts on approaching communities in certain areas. Preference should be expressed unambiguously. One aspect of preference is that RWMD could work more effectively, efficiently and economically in certain geological environments where there is advanced experience in other countries, particularly in Europe. For example, France, Switzerland, Belgium and the Netherlands are all working in clay environments that share many characteristics with definable geological formations and environments in the UK. This should not be seen as a reversion to the technically led approaches of the 1980s, but a sensible means of capitalising on shared European experience. In practical terms, it would mean that RWMD utilised some of its resources to promote discussions within regions of the UK where it considers that geological conditions would allow it to move forward most effectively to meet the aims of MRWS.

In a more proactive role as champion, RWMD would need improved internal resources to extend its science, engineering and science communication capabilities. To date, geological disposal has been treated rather as an unwanted orphan in the UK. GDF development needs to be seen as a key component of our national technological capability. There are careers and research and development challenges aplenty here, for future generations of UK scientists and engineers. Close relationships between RWMD academia, national laboratories and industry should be at the core of developments. Within ten years, the UK could be in the forefront of this area of technology again, with spin-off to major countries that have rapidly developing nuclear power programmes. This requires RWMD to be able to act as UK champion. The flexibility to go out and talk to communities proactively, in an open and positive manner, seems like an important part of this enablement.