

## **Cumbria Trust's response to RWM National Geological Screening Guidance consultation**

### **Introduction**

Cumbria Trust welcomes Radioactive Waste Management's (RWM's) national geological screening exercise. This has the potential to be a solid foundation for the next siting process for geological disposal. We also welcome the involvement of the Independent Review Panel (IRP) to oversee the screening process and to provide much needed scrutiny.

However, we have some serious reservations about the proposed geological screening process itself and especially how its findings will be presented and utilised. These are given below in our detailed response. In particular it isn't yet clear that the output will be sufficiently detailed to allow potential host communities, however those are eventually defined and that remains a very contentious subject, to adequately understand the potential suitability of the geology found beneath them. There is no indication that suitability relative to other parts of the UK will be considered by the exercise. There is also no suggestion that regions with relatively unsuitable geology will be prevented or discouraged from volunteering or conversely that regions with potentially suitable geology will be actively encouraged to volunteer. A screening exercise which is certainly a step in the right direction, may in effect prove worthless if there is a reluctance to screen out less suitable areas.

As has been said previously the fundamental flaw in the whole Geological Disposal Facility Siting Process remains that areas selected for more detailed geological study will not be based on the findings of this national geological screening exercise but on the location those communities that might later, at the siting stage, express an interest in being considered as possible hosts. At worst this could unfortunately make the national screening exercise utterly irrelevant.

Continued involvement of the IRP is required to ensure that public trust in the siting process can be maintained. The lessons of the past failed attempts at finding a site for geological disposal must be fully taken into account. RWM has repeatedly described how this will be an open and transparent process, and yet they have tried to brush aside questions on previous failures as 'past history'. This appears to be an early sign that the process will only be 'open and transparent' when it suits RWM.

Cumbria Trust is concerned by Professor Yardley's role in the screening process, particularly having stated that 'Cumbria is not the ideal place to site a repository' in 2013, before taking up his position with RWM, and then apparently changing his view to match that of his new employer. The fact that he as RWM's Chief Geologist is likely to be providing the interpretation of the BGS data is a matter of significant concern.

Public trust in nuclear waste disposal is at best delicate, and Cumbria Trust will scrutinise this entire process to ensure that science takes precedence over political expediency. We will not permit past failures and inconvenient science to be ignored.

**1. To what extent do you think our proposed approach to providing national-scale existing information about geology relevant to long-term safety is appropriate?**

Radioactive Waste Management (RWM) appears to be confused, or at least is putting out a confusing message as to what the output of the screening exercise will be. Point 1.3 states *“Whilst no national exercise will be able to definitively rule all areas as either suitable or unsuitable, it is possible that screening may lead to some areas being identified as unsuitable for hosting a GDF”*. This directly contradicts the position stated at the RWM/Independent Review Panel (IRP) meeting in June 2015 where Natalyn Ala (GDF Siting Director of RWM) stated more than once that the screening process would not rule any area in or out.

In fact the screening process should be able to rule significant areas of the UK out, based on existing data. In 2006 a survey led to a joint statement from the British Geological Survey (BGS) and Nirex, which said that more than 30% of the UK landmass had potential for geological disposal. The statement went on to say that a full report would be published later that year. That never happened, and it seems probable that it was suppressed for political reasons, since it is likely to have ruled out West Cumbria, just as the Lead Inspector of the Nirex Inquiry, Chris McDonald had done in the 1990s and again more recently.

Cumbria Trust is concerned that the geological screening exercise will be a missed opportunity to identify those areas with the greatest potential, and those areas which should be ruled out.

From point 1.9, the suggestion that the BGS will provide the geological data, and RWM the interpretation of the data, is fundamentally flawed. For this process to remain credible, the BGS should conduct the entire screening process, and be overseen by the IRP at all stages. RWM should provide the initial screening criteria in conjunction with IRP, and then distance itself from the process. Given the troubled history of RWM (under its many previous names), including a 2004 (Nirex) report which advocated the grooming of local politicians to secure a GDF site, this is likely to lead to an early breakdown of public trust. There will be a suspicion that RWM’s interpretation has been manipulated to present geologically unsuitable (but politically-desirable) areas as having potential. John Black of IRP acknowledged this problem of manipulation, or at least the perception of it, at the RWM/IRP June 2015 meeting.

Managing Radioactive Waste Safely (MRWS) stage 2 appears to have been manipulated in just this way between the draft geological screening report in July 2010, and the final version in October 2010. The result of these changes brought a large area of northern Allerdale near Silloth back into play. The impression of manipulation was heightened by the suppression of the draft report, the public exclusion from the discussion which resulted in the changes, and the repeated refusal to subsequently justify or even discuss the changes.

While we appreciate that RWM is keen to distance itself from past failures in the GDF siting process, and no doubt its regular rebranding is motivated by this, recognition and acceptance of the reasons for these failures are essential if RWM is to learn from past mistakes. There is a significant risk that the repeated rebranding serves to distance RWM from its past mistakes, to the extent that it becomes more likely to repeat them.

**2. The proposed sources of information are summarised below. To what extent do you think that these sources are appropriate and sufficient for this exercise?**

It seems quite absurd that RWM are not proposing to use the extensive data set from Nirex, where £400m was spent investigating the geology of a large area of West Cumbria. The Lead Inspector of the Nirex Inquiry reached the clear conclusion that the geology of West Cumbria was unsuitable and that a future search should move to a part of the UK with simple geology.

Cumbria Trust is concerned that the failure to use this extensive data set appears to be an attempt to airbrush Nirex from history, and would be akin to a doctor refusing to look at a patient's medical history when formulating a diagnosis.

Professor Yardley has made the point that in some areas deep borehole data is very sparse, and even separated by tens of kilometres. However, that is no reason not to use the data where it exists.

**3. To what extent do you agree or disagree with the proposed form of the outputs from geological screening? What additional outputs would you find useful?**

The defined regions appear to be far too large and, if the outputs are presented in that way without sufficient care to distinguish between smaller areas, there is a risk that will devalue this exercise to such an extent to make it virtually worthless. An area the size of which could volunteer to be considered, should be able to make a reasonable judgement of its suitability for a GDF prior to doing so. Clearly we do not expect it to be sufficiently detailed to rule an area decisively in, although it may rule one out, but it is essential that the detail is such that a borough or county could make an informed decision using a provisional assessment of its geological suitability.

During the abortive MRWS process, the fact that there are three potentially suitable rock types was irrationally extended to suggest that no one rock type may be preferable to another. This was further extended and misinterpreted by some less scrupulous politicians to suggest that no one site is more or less suitable than another, which is plainly ridiculous.

To avoid a repeat of this situation, and to enable an informed debate, it would be helpful if areas could have some form of suitability ranking, to distinguish the more promising areas from those which are less suitable. We appreciate that this is not a straightforward task, and that it will involve expert judgements, but provided that these are closely scrutinised by the IRP, we feel that this would add significant value.

#### **4. Do you have any other views on the matters presented in the draft Guidance?**

It is a matter of significant concern that RWM's Chief Geologist, Professor Yardley appears to have shifted his position on the most suitable rock types and areas to fit that of his new employer. In January 2013 Professor Yardley gave evidence to a committee of Cumbrian MPs in Westminster and made it clear that clay geology would be the preferred option, and preferable to West Cumbria's fractured higher strength geology. He reiterated this view by email shortly afterwards stating that he had agreed with Professor Haszeldine and Bruce McKirdy that "Cumbria is not the ideal place to site a repository" and that "At present, there is no sign of another community coming forward, although if the right one did, for example over a clay site in the east of England, that would be an excellent thing".

It became apparent at the October 2015 Carlisle RWM meeting that Professor Yardley now appears to want to distance himself from those views. This leads to the suspicion that despite all the emphasis on a national process, RWM still has Cumbria

firmly in mind for a GDF, despite its problematic geology. It is possible that RWM is simply going through the motions of a screening process, before seeking to return to Cumbria for a third time.

As the draft Guidance is currently written, it is likely that as RWM's Chief Geologist, Professor Yardley will be personally responsible for interpreting the BGS data and providing the narrative. This is clearly unacceptable to Cumbria Trust.

Under the voluntarism process advocated by the White Paper there is a strong possibility that the screening findings will play an insignificant part or even become an irrelevance once the siting process commences, as further in depth studies will be targeted solely upon areas containing "interested" communities.