

DECC MRWS consultation 2013

Concatenated corporate and organisation responses

Above Derwent Parish Council
Alan Auld Group
Allerdale and Copeland Green Party
Allerdale Borough Council
AMEC
AREVA Risk Management Consulting Ltd
Arup
AWE The Atomic Weapons Establishment
Barrow Borough Council
Berkeley SSG
Black Country LEP and LAs
Blackwater Against New Nuclear Group
BANNNG
Blackwater Against New Nuclear Group
Bradwell for Renewable Energy
British Geological Survey
Chaucer plc
Churches Together in Cumbria
Communities Against Nuclear Expansion
Copeland and Workington Liberal Democrats
Copeland Borough Council
Copper Consultancy
CORE Cumbrians Opposed to a Radioactive
Environment
CPRE North Yorkshire
Crosscanonby Parish Council
Cumbria Association of Local Councils
Cumbria Chamber of Commerce
Cumbria County Council
Dalton Nuclear Institute
Dounreay Stakeholder Group
Eden Nuclear and Environment Ltd
EDF Energy
Ennerdale and Kinniside Parish Council
Environment Agency
Friends of the Lake District
Galson Sciences Ltd
Gosforth and Ponsonby Parish Councils
Green Peace
HANT Highland Against Nuclear Transport
Holme St Cuthbert Parish Council
Imperial College London
Kent County Council
Keswick Council
Labour Members Copeland Local Committee
Cumbria CC
Lake District National Park Authority
Lancaster University
Lawson Engineers Ltd
Maryport Town Council
McCombie Consulting
McEwen Consulting
Millom Without and Whicham Parish
Councils
Moresby Parish Council
National Nuclear Laboratory
National Skills Academy for Nuclear
National Trust
NOEND No Ennerdale Nuclear Dump
Nuclear Free Local Authorities
Nuclear Industry Association
Nuclear Institute NI
Nuclear Waste Advisory Associates
NuLeAF
Oxford Institute for Sustainable Development
Oxford Brookes University
Parents Concerned About Hinkley
Prospect representative
Prospect
Qunitessa Ltd
Radiation Free Lakeland
Rail Freight Group
RDFL
Scottish Environmental Protection Agency
Seascale Parish Council
Seaton Parish Council
Shepway District Council
SKB response
Solway Plain Against Nuclear Dump SPAND
St Bees Parish Council
St Johns Castlerigg Parish Council
Sussex Energy Group at SPRU Sussex
University
Swarthmoor Area Quakers SW Cumbria
The Geological Society of London
The Immobilisation Laboratory University of
Sheffield
Underskiddaw Parish Council
Unite Union
URS Infrastructure Environment UK Ltd
Wayfarer Project Services
West Cumbria and North Lakes Friends of
the Earth
Westlakes Nuclear Ltd

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

- **What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?**

Various aspects of the MRWS process need improvement not just the site selection process which is currently stage 4.

Firstly a National Geological survey must be conducted at national level by independent geologists who are recognised internationally and have no connection to the UK nuclear industry.

The survey must adopt current International geological and associated practises while recognising the need to follow European laws and legislation (such as the Strategic Environment Assessment) which will immediately exclude all protected areas.

In/out screening minimises cost and public concern through reduced community participation

- **What do you think could be done to attract communities into the MRWS site selection process?**

Communities are more likely to be attracted when there is a much clearer picture of what it will mean in terms of impact to their environment, safety considerations and the guaranteed benefits it would bring.

Government must be firmly committed at all stages and must ensure the right of withdrawal is available to host communities (as defined by the consultation document) and enshrined by law.

The public need to have confidence in the process, its governance and quality controls.

- **What information do you think would help communities engage with the MRWS site selection process?**

Communities must have various levels of information readily available to them. For those who run businesses the information must show how changes to the infrastructure might have positive or detrimental effects to their business model.

To maintain public and business confidence there needs to be an independent overseer who will ensure the integrity of the process and the proper disclosure of all vested interests.

Key Improvements from the West Cumbria MRWS process lessons learned –

Where the national geological survey positively identifies an area where communities show interest, the Government must ensure a Strategic Environment Assessment (SEA) is immediately undertaken for suitability.

In/out screening minimises cost and public concern through reduced community participation

Throughout all stages of the process all government agencies must be seen to proactively engage and positively support local MRWS leadership groups and their decision making bodies by quickly addressing their concerns. –example, Cumbria County Council letter to Baroness Verma leading up to Stage 4 decision making.

Avoid generating a widespread lack of trust through a perceived lack of integrity - vested interest, impressions of incompetence, prejudgement of decision making, pressure from DECC, democratic deficit such as the host communities inability to exercise the right of withdrawal.

Listen to public feedback when freely given and do not summarise their concerns to a point where they are lost or unrecognisable - example, the West Cumbria 9 question public consultation feedback used in the Stage 3 final report.

Ensure the MORI questions are few and necessary and the results are obtained in a transparent logical way, else public concern will lead to a belief the results are manipulated and dishonest – example, why is it necessary to ask if people are employed by the defence or nuclear industries as this could sway the participant's answer through loyalty or job concern.

Avoid glib statements as these contribute to misrepresentation of the facts and at worst suggest the consultation has failed altogether – example, NDA representative.

still giving the communities the facility to opt out if they choose, depending on the outcome of the exploration work. Failing an agreement from the communities to accept, when the full information is available to them, then the Government has retained the right at some point in the future to explore other approaches than voluntarism and partnership. If it got to this stage, and the commitment to proceed with a GDF is still the mandate, then it would need to be a dictate from the Government to proceed with the construction of the GDF at Sellafield.

FOOTNOTE

No indication has been given in the current documents as to why the County Council has voted no to proceed to Stage 4 at such an early stage. With the option to say no after any stage, in my opinion, it would have made more sense to proceed to Stages 4 and 5 when all the relevant information would have been available to make a proper informed decision.

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	Allerdale and Copeland Green Party
Organisation Size (no. of employees)	REDACTEDREDACTED
Organisation Type	REDACTEDREDACTED
Job Title	REDACTEDREDACTED
Department	
Address	REDACTEDREDACTEDREDA REDACTEDREDACTEDREDA REDACTEDREDACTEDREDA REDACTEDREDACTEDREDA
Email	REDACTEDREDACTEDREDA REDACTEDREDACTEDREDA
Telephone	REDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

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We welcome the call for evidence and would like to make the following comments in the spirit of helpfulness so that lessons may truly be learnt from the failed process in West Cumbria. The comments are predicated upon Green Party Policy and the Sixth Report of the UK Royal Commission on Environmental Pollution; Nuclear Power and the Environment September 1976, also known as the Flowers Report.

1) Green Party Policy EN600 states: "A deadline for phasing out nuclear power would be set when we come to office and all UK nuclear power plants phased out within this date."

EN604 states: "The long-term management of higher activity radioactive waste should be in surface or near-surface facilities. Facilities should be located as near to the site where the waste is produced as possible. Developers will need to demonstrate how the facilities will be monitored and how waste packages, or waste, could be retrieved. All long-term waste management options will be subject to robust regulatory requirements."

The Flowers report recommended: "There should be no commitment to a large programme of nuclear fission power until it has been demonstrated beyond reasonable doubt that a method exists to ensure the safe containment of long-lived, highly radioactive waste for the indefinite future."

2) We had at least one member at all the MRWS meetings and some of our members followed the meetings and reports very closely. We therefore feel able to whole-heartedly endorse the cross-party decision taken by Cumbria County Council and the reasons given for it.

3) It is essential that it is acknowledged by all concerned that our radioactive waste is a national issue and that safety, and not convenience of any sort, has to be paramount. Given the policy of the Scottish Government & the uncertainty of that of the Welsh Assembly, we feel that, in order to make the search for an answer to this problem truly national, that the remit should be widened to include the possible siting of storage/disposal methods other than GDF.

4) One of the major stumbling blocks of the West Cumbria MRWS was the lack of clarity over definitions and parameters. The host community should be carefully defined and used with consistency throughout policy documents and discussions. The waste to be emplaced should be clearly defined in terms of composition, volume and radioactivity before any process is embarked upon. The host community must know exactly what it is volunteering for at the outset.

5) The MRWS partnership made much of the promise of economic benefit and jobs. For the purposes of adequate comparison to be made, a rigorous assessment should be made of long-term post-construction jobs created by a) GDF b) surface or near surface stores.

6) Before any authority expresses interest they should demonstrate that they have local support in doing so. Shepway decided not to express an interest, due to the lack of public support. That Allerdale and Copeland decided to do so without demonstrating public support, meant that trust was lost from the very beginning. Ultimately there was widespread mistrust about the whole process and consultation. Indeed the consultation failures of MRWS were acknowledged by the NDA publicly. The partnership repeatedly considered the issue of trust and tried to engender trust among the public but they always failed.

7) The fundamental pro-nuclear bias of DECC and the NDA proved to be a major stumbling block to engendering trust and, ultimately, both the NDA and DECC came out of the whole process extremely badly. It may be that both DECC and the NDA have to be removed from any siting process and be replaced with a new statutory body.

8) Geological disposal has not been proven to work, it was merely a pragmatic solution adopted after the banning of marine disposal in 1993. DECC's use of the example of other countries to bolster the case for deep disposal here is treated with suspicion because those countries are not in anyway similar to the UK in size or population density, geology or topography. No country has yet solved the problem of nuclear waste.

9) Any plan for radioactive waste must aim to deal with it in situ and avoid the need for transportation

10) Any process which results in wastes of different composition, or multiplies the amount of waste to be dealt with must be ruled out now, as this only further complicates the problem to be dealt with. Radioactive waste is not homogenous; differing chemical composition, rates of decay etc mean wastes need to be handled in different ways. Any change of definition of waste to "energy asset" should only be considered if it renders the resultant waste harmless.

11) It is important to recognise that the plan to find a site to host a deep underground disposal site may end in failure. After all, detailed plans have failed twice in West Cumbria before. While it may be possible to learn from the process in order to make it more likely that a further consultation will succeed, evidence may arise proving that the site or the concept is not the best or safest possible. A credible consultation should recognise the possibility of failure. During the MRWS process, it was repeated by DECC officials several times in public that Plan B was to make Plan A work. A credible Plan B is needed.

12) In addition to areas of unsuitable geology or topography, areas with landscape designations (National Parks, Areas of Outstanding Natural Beauty) or wildlife designations (Ramsar sites, Special Areas of Conservation, Special Protection Areas, Sites of Special Scientific Interest) should be protected at depth as well as on the surface.

13) If the Government is determined to press ahead with deep disposal, areas with a good chance of proving geologically and topographically suitable should be first identified and expressions of interest sought from those areas. This judgement should be based on a credible geological countryside survey. In this respect the MRWS process was a sham, geology was never considered in any detail and the public felt that the desired result was to come back to West Cumbria.

14) Arrangements for monitoring the waste and retrieving it if found to be leaking, so that it may be repackaged and made safe, must be considered from the outset and designed into any deep disposal project. These arrangements must be able to run for the entire life of waste or until suitable treatment is found to render it harmless.

15) The process of finding a permanent solution will take decades. In fact, it may never be found. The recent Commons Public Accounts Committee report was very critical of the cost overruns and delays in dealing with waste and the decommissioning of facilities, as well as

the ongoing dangerous state of the waste. One committee member, MP Austin Mitchell, described Sellafield as "the biggest nuclear slum in Europe". Therefore DECC and the NDA should make it their highest priority to deal with the waste at Sellafield, and to ensure it is safely stored and monitored on the site.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

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- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

The site selection process, as outlined in the MRWS White Paper, was predicated upon the principle of engaging communities through a volunteerism and partnership approach. The White Paper stated the approach is "one in which communities voluntarily express an interest in taking part in the process that will ultimately provide a site for a geological disposal facility."

The proposed site selection process also included a number of potential early steps as outlined at 6.13 of the White Paper. Allerdale Borough Council broadly followed these initial suggested steps following its publication in June 2008. This led to the authority agreeing to "without commitment discussions with Government on the possibility of hosting a geological disposal facility at some point in the future." (Stage 1 of the site assessment process - Chapter 7).

Following the expression of interest Allerdale and Copeland formed the West Cumbria MRWS Partnership. Allerdale very much welcomed the White Paper's position that a volunteerism and partnership approach is not too prescriptive. The members of the West Cumbria MRWS Partnership developed and agreed the terms of reference, membership and work programme of the Partnership. The members of Partnership, in setting their work programme, were able to plan and receive presentations and papers from industry experts, some of which were supportive of the MRWS process, others were opposed. One such presentation from the NDA outlined how a volunteerism approach was being adopted in other Countries who were in a more advanced stage of geological disposal of higher activity radioactive wastes.

One of the early pieces of work carried out by the partnership was the fulfilment of indicative Step 7 in the White Paper, "undertake high-level geological screening". (Stage 2 Chapter 7). This piece of work was commissioned by government and was a very specific higher level geological screening, essentially ruling out areas that included natural resources at depth, that might one day be needed to be exploited. Exploitation of the resources would be compromised if a geological disposal facility were to be located where they were found. This step therefore immediately brought the issue of geology into focus, and in West Cumbria an assurance was given by government that sufficient areas remained for the process to continue in West Cumbria.

This commitment from government engaged a number of groups and individuals who claimed

that the government were inappropriately supporting the search for a geological disposal facility in West Cumbria, because, in their opinion, the geology was not suitable. The government had stipulated in Chapter 7 of the white paper - the site assessment process, that detailed geological desk top studies would be carried out in an area deciding to participate in the MRWS process (Stage 3 Chapter 7). This decision comes at the end of potential early steps in the white paper, No indicative timescales were given by government as to how long each stage would last. The eventual decision to participate was made 4 years after the first expressions of interest submitted by the 2 district councils. This long period of time gave the opportunity for members of the partnership to explore in significant detail, the issues of geological disposal, and also gave the opportunity for significant public engagement, consultation and the gauging of public opinion to be undertaken.

The significant timescale also meant that the issue of the suitability of the geology of the area remained an uncertainty which would only be resolved if a decision to participate was to be taken. Following 4 years of work and significant investment from the government, the eventual decision to participate became a major decision of national interest for each decision making body and although government confirmed its commitment to volunteerism and the "right of withdrawal", a degree of scepticism remained around the right of withdrawal. This was crystallised by a strong will for the right of withdrawal to be put on a legal footing either before or after a decision to participate.

Arguably this uncertainty could have been met earlier, if the detailed geological desk-top survey work had been carried out in stage 3 of the MRWS process, as a part of the geological screening to rule out areas with potentially exploitable natural resources.

Furthermore the lack of certainty about what is meant by "community", both in terms of "volunteering" and in terms of "benefits", when there are several definitions in the White Paper, ultimately became a barrier to understanding and confidence in the process. That too could have been mitigated by undertaking the desk-top geological studies in Stage 3 rather than Stage 4, as the directly affected populations would have been more readily identifiable, rather than being the subject of speculation.

- What do you think could be done to attract communities into the MRWS site selection process?

The long term disposal of higher activity radioactive waste is always likely to be contentious. The government seem to have correctly judged that areas most likely to come-forward and express an interest in a volunteerism process as outlined in the White Paper, are those communities that either have an understanding of the nuclear industry or experience of already having stocks of radioactive waste stored in the local area or preferably both. The right of withdrawal has been expressed as important to communities that engage with the government on this issue and put the right of withdrawal on a legal footing could assist to attract areas to consider, as could making clear the likely nature and extent of community benefits an area might receive in hosting a deep geological disposal facility.

- What information do you think would help communities engage with the MRWS site selection process?

The West Cumbria MRWS Partnership's final report was the accumulation of a 4 year work programme. The issues covered included:

- Geology
- Inventory
- Design and Engineering
- Safety, Security, environment and planning
- Impacts
- Community benefits package
- Overarching issues

Whilst some of this work was specific to West Cumbria much of it is generic in nature and the research, findings and opinions should be of use to other communities that are considering engaging in the MRWS site selection process.

Finally one of the political groups in Allerdale has indicated that their group wish to go on record as not supporting a reopening of the process in Allerdale.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

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AMEC believes that accelerated progress must be made in the UK to secure a GDF as part of an overall package of measures to enable the UK to meet its climate change commitment targets, with new nuclear power generation and full nuclear fuel lifecycle management being important constituent elements of this.

AMEC is a focused supplier of consultancy, engineering and project management services to its customers in the world's oil and gas, mining, clean energy, environment and infrastructure markets. With annual revenues of some £4.2 billion, AMEC designs, delivers and maintains strategic and complex assets and employs over 29,000 people in around 40 countries worldwide.

AMEC is the largest UK-based private sector supplier of programme, asset management and technical engineering services to the nuclear sector. The business has had a leading position in the UK nuclear market for over 50 years and UK clients include HSE, Environment Agency, Sellafield Sites, Magnox, EDF, AWE Aldermaston, BAe and Rolls Royce. Half of our nuclear business is now international with a wide client base covering nuclear utilities, vendors and regulators in the US, Canada, Europe, South Africa, Japan and Korea. AMEC is committed to maintaining its position as the leading UK engineering company servicing the growing UK and global nuclear market.

“What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?”

a) What aspects could be improved?

1. MRWS embraces the concept of community voluntarism and agreement – we believe this must be preserved to ensure future participating communities have confidence they are participating in an inclusive and transparent process.
2. We believe the MRWS process needs to be simpler and easier for communities to follow. Based on recent experience there needs to be a special emphasis on providing

clarity of the process to communities at the very earliest stages, to enable communities to complete MRWS Stage 1 (or a similar stage in which the wider community is involved).

3. Ideally, a significant number of communities (numbering several 10's) need to be sufficiently motivated to complete MRWS Stage 1. This would help to create a sense of 'competition' between the communities which in turn would benefit the process.
4. It is desirable for participation in Stage 1 to be time bounded for all potential GDF locations. This would allow all potential locations to be considered on their relative merits.
5. Several communities, from a range of geographical locations, need to participate in MRWS Stage 4. This would be helped if Government published a UK-wide map showing where the potentially suitable areas are - in other words, reverse Stages 1 and 2 so communities know from the start whether their location might be suitable or not.
6. There needs to be greater responsiveness and debate involving key stakeholders. The communities should have the opportunity to vote to help engagement and demonstrate the level of support. This should help encourage local supporters to come forward to promote the benefits and balance potential opposing views of local political leaders where these are driven by anti-nuclear politics.

b) How can the site selection process be improved?

1. Learning from existing successful processes.

The MRWS process should be better aligned with other successful processes, e.g. planning involving major projects. The Planning Act 2008 process was introduced to streamline the decision-making process for nationally significant infrastructure projects, making it fairer and faster for communities and developers alike. Consideration should be given to whether the MRWS process can be managed in a similar way to other nationally important projects.

Experience from similar processes in other countries should be taken into consideration in improving the process. As an example, the consultation process in the Republic of Korea leading to the selection of the Gyeongju site resulted in strong community engagement, with in excess of 90% of the community being in favour.

2. Ensuring MRWS is being considered by communities.

The Government should embark on a renewed drive to ensure that the case and potential benefits for hosting a GDF are drawn to the attention of communities and to encourage further local authorities to come forward to join the process. To accomplish this will require a proactive approach at all stages of the process. It is expected this would take the form of helping a community through all of the stages, but especially the initial stages of the process (i.e. through Stage 1). We expect this should be supported by Government to enable resources to be available (to be drawn on by a community); sufficient information to satiate questions arising from communities (from recognised experts); and sufficient clarity over the process in the early stage to ensure there is a structured approach that does not become overly burdensome to the tax payer. We note, unlike other planning processes, in which authorities have a statutory requirement to respond (to say yes or no), MRWS does not. As a consequence of this, it is difficult to establish whether there has been any substantive consideration from a community.

3. Make the process clearer and streamlined.

MRWS was designed as a flexible process without a clearly defined prescription for the individual stages. It is our opinion that without greater clarity the MRWS process will not achieve its intended outcome. It is recognised there is a difficult balance between being too prescriptive and allowing communities to proceed without undue pressure. However, greater clarity should be provided to the earlier (pre-commitment) stages to allow communities to at least understand the merits of participation in the process. Having established a simpler process, this should then be followed. Part of the confusion in West Cumbria arose from the establishment of an effective "Community Siting Partnership" prior to any Decision to Participate which is the reverse of what was set out in the 2008 White Paper, and possibly contributed to confusion in the decision making process and the roles of respective parties.

4. Provide better information.

We would expect to see significantly greater levels of pro-activity from all the key stakeholders. One important aspect of this would be in the area of provision of information and evidence for (or against) the case for the siting of a geological disposal facility within the boundaries of a community. These key stakeholders include government (DECC or appropriate government department), NDA RWMD (providing scientific and technical support), EA, ONR, local communities, local councils, NGO's and other interested parties. It might also help if there was a simpler GDF design proposal for communities to consider. At present, there are so many variables related to the GDF (inventory, design, operational period, nuisance factor impacts, inward investment opportunities etc.) that it is hard for communities to appreciate the potential benefits and disbenefits. The key stakeholders could do more to help the communities understand how a GDF might be tailored to fit into the local environment and what the real impact would be.

5. Understanding risk and benefits.

There needs to be a better appreciation by Government of the risks communities may face in making a decision to participate. This means having greater clarity of the types of risks (physical, environmental, radiological, commercial etc.), their magnitude (relative to other day-to-day and industrial risks) and the timescales over which they may occur. This will enable risks to be more clearly balanced by potential benefits that are realised in the not too distant future. Similarly the benefits also need to be clarified in terms of the nature of the community benefits package and its value and timing, and also secondary benefits that may accrue, such as from inward investments, additional employment, secondary supply chain opportunities, new infrastructure etc. The benefits package needs to be significant and clearly stated.

6. Better support to challenge.

This would provide an adequate level of reassurance to questions raised about the suitability of sites. NDA RWMD and supporting experts need to increase their visibility to provide scientific and technical information available, as well as being involved in constructive and robust debate, to support all stages of the process. DECC needs to provide practical support (and funding) to the community, to allow early engagement with

the community. The various regulatory bodies such as the Environment Agency should play a more important role in scrutinising information and provide independent guidance to communities. Many stakeholders (especially regulators) operate in a purely responsive mode because their statutory remit (which was never designed for the purposes of the GDF) allows them only to engage once a formal application has been made to them by the developer. This significantly reduces their ability to engage in a public debate during early stages in the MRWS process. A way of breaking out of this position would be beneficial.

“What do you think could be done to attract communities into the MRWS site selection process?”

1. A simpler, structured process for communities to follow
2. Readily available information for communities to draw on (on-line), including a much clearer representation of the scale of the GDF and its impacts to a community
3. Assistance to all communities at the very earliest stages of MRWS site selection process.
4. Assistance to communities with managing uncertainty and risks of participation in the process
5. Time bounding each stage of the MRWS site selection process. This will ensure the early stages of the process are either completed or brought to a timely conclusion. This will ensure processes do not drag on unnecessarily for Government or community.
6. A very clearly defined benefit package to enable communities to understand the merits of participation.

“What information do you think would help communities engage with the MRWS site selection process?”

1. Better and earlier information on the suitability of their site to host a Geological Disposal Facility, and give consideration to reversing Stages 1 and 2 so that a community knows from the outset whether or not their location is potentially suitable
2. Greater clarity on the nature of the radioactive waste inventory which the community will host
3. Greater certainty in the waste packaging and disposal concepts to be used at the host's site
4. Clear statements (in layman's language) on the environmental and safety targets and impact that a proposed facility would have, supported by graphical simulations.
5. Clear statements (in layman's language) of the risks involved in hosting the GDF, with easy-to-understand comparisons with everyday well-understood events.
6. A very clearly defined benefit package to enable communities to understand the merits of participation.

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Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	AREVA Risk Management Consulting Ltd.
Organisation Size (no. of employees)	REDACTED
Organisation Type	
Job Title	REDACTEDREDACTEDREDACTEDRE
Department	
Address	REDACTEDREDACTEDREDACTEDRE DACTEDREDACTEDREDACTEDREDA CTEDREDACTEDREDACTEDREDACT EDREDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTEDRE
Telephone	REDACTEDREDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

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- **What information do you think would help communities engage with the MRWS site selection process?**

- **What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?**

From my experience as REDACTEDREDACTED, it would have been of benefit to the communities if some elements of the site-specific studies that would have been undertaken in MRWS Stage 4 could have been carried out in advance of the community making a decision to participate. This would have allowed more information to be available to the communities to support them in their decision making and, had the community made that decision, it would have allowed Stage 4 to be undertaken more quickly.

- **What do you think could be done to attract communities into the MRWS site selection process?**

I have limited involvement with this early part of the process, but I would suggest that better communication of the experiences of communities that have gone through a similar process internationally would be beneficial.

- **What information do you think would help communities engage with the MRWS site selection process?**

1. More information earlier on the process on the potential implications of hosting a GDF would most likely have helped. Preliminary assessments could be carried out from an early stage and repeated with an increasing degree of detail as progress is made through the process. Information requirements include but are not limited to:
 - a. The impact of a GDF and its construction on the socio-economics of the region
 - b. The impact of a GDF and its construction on the environment
 - c. The additional transport and transport infrastructure that could be expected through the MRWS stages
2. A better understanding of where a GDF might be sited within the area put forward might have helped. For this, a greater understanding of the geology would be necessary during Stage 3, and also a better understanding would be needed of the process that would be followed to select a site once a decision to participate had been made.
3. More clarity on the benefits package.
4. Confidence that any benefits package would be robust to changes in Government.

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Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.qsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	Arup
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Overview

The development of a Geological Disposal Facility (GDF) brings with it a wide range of benefits and concerns for any potential host community. Jobs and economic activity are the obvious advantages as infrastructure is built and later managed and maintained. Equally, the local population will have perfectly legitimate concerns about safety and security and these must be addressed quickly and clearly.

Detailed economic and societal evaluation can often be used to demonstrate real advantages to the prospective host community; however the benefits message can be rapidly subsumed by negative issues raised early on in the process.

Balancing the early stage vision

It is clear that a strong, cogent and compelling vision must be developed from the outset. This vision must robustly demonstrate the advantages to any potential host community. The detailed evaluation must also be frank about the potential disadvantages to maintain credibility but it is establishing this balance that is critical.

The human element is critical. If development is to proceed, concerns must be addressed and the benefits must be clear before any project will gain the assent of the community.

As it stands, however, the planning process can make it difficult to make a persuasive case in favour of development before negative issues gain traction. The development process relies on community champions, local politicians or other proponents engaging in discussions and taking the high profile step of registering an Expression of Interest (EOI) at a stage where they have insufficient tangible non-generic evaluation of the benefits which could accrue to the Volunteer Community. In this respect there is an imbalance, because the disadvantages associated with hosting the GDF are reasonably well articulated in both a factual and emotive sense, while the advantages are less clear or simply not articulated in a tangible local context.

Early stage cost/benefit balance

The second key challenge comes in terms of ensuring a balance between Volunteer Community costs (dis-benefits) and benefits over the whole engagement process. Throughout the process, and specifically when moving through the decision gates at the end of each Stage (e.g.: Expression of Interest, Decision in Principle), there is a step change increase in dis-benefit which needs to be carefully balanced by a mix of real contemporary advantage and clearly envisioned future benefit.

This challenge is most acute at the critical early stages of the process when the benefits are less evident. Later in the process there is typically a greater balance however. For example, construction disruption is countered by construction jobs and associated infrastructure development. Equally, waste transport, possible repackaging and surface marshalling provide an ongoing economic stimulus to the local community while the long term (intergenerational) advantages and disadvantages will be less evident by virtue of being 'business as usual'.

The most undesirable effect of this early stage imbalance is that dis-benefits are not adequately offset or countered by clear advantages, so there is little local political incentive to defend the dis-benefit. This can be particularly challenging when the disadvantages manifest during one political cycle whereas the demonstrated benefits accrue at a later stage, perhaps during the tenure of a political successor. This is a recurring challenge in politics generally, but examining ways to mitigate its impact in the GDF context could well pay dividends.

A potential engagement process

While the Volunteer Community methodology has significant merit, as we have seen it is difficult to engage potential host communities positively without providing clear evidence of the advantages associated with lodging an Expression of Interest.

In addition, while certain communities are well versed in the GDF process and its potential outcomes, others are likely to have insufficient contextual understanding of the volunteer case. Generic descriptions of benefits such as '550 jobs for 100 years', 'improved transport infrastructure', or 'development of high technology support service industries', are insufficiently specific or tangible for communities unfamiliar with the benefits that accrue from hosting such facilities.

To encourage early and positive community engagement, we advocate a process that delivers a local, specific, objective and balanced vision for the GDF right from the start. The process would cover approximately 15 district-sized areas across England and Wales (in conjunction with Welsh Government) and would involve creating well-researched and objective evaluation packs for each site that would provide the basis for objective early stakeholder briefing.

In a similar way to any other economic impact assessments or regional development plans, these GDF Briefing Packs would be open to discussion and challenge. The evaluations would also retain their key advantage, which is to articulate the likely spectrum of local community advantages in a balanced manner while outlining the associated risks and disadvantages in a sensible manner.

Objective GDF Briefing Packs will support and enable community representatives to form their own views based on balanced, informed and locally specific information. This differs from the current approach which relies on generic, non-specific advantages being compared with specific local disadvantages and discourages any engagement with the GDF process.

It is important that the GDF Briefing Packs are prepared in an objective, transparent and consistent manner. They must also be grounded in the issues and realities of the district to which they relate. This will help replace emotive speculation with informed debate among local communities.

The GDF Briefing Packs could then be openly discussed with the general public and potential local champions, as well as those who may constitute the DMB (Decision Making Body).

The GDF Briefing Packs would describe a high level economic development vision based on GDF volunteerism. They would cover objectively determined locations so that any suggestion of pre-determination does not hold weight. There is a case for objectively selecting particular locations for study, while also retaining the clear principles of the Volunteer Community approach.

Developing the GDF Briefing Packs

To develop the GDF Briefing Packs, we suggest the initial use of a broad GIS (Geographical Information System) -based evaluation tool. This could be developed to include elements such as excluded geology, transport networks, complementary industrial sectors or other features. A GIS-based system could provide the framework to identify 15 or more Districts for development, as well as providing the foundation for specific GDF Briefing Packs. There is also the opportunity to open up the GIS information on a web-based platform as part of a wider stakeholder engagement process.

In the interests of transparency, there would be a need to objectively define and document the exclusionary and discretionary parameters used in the high level GIS-based evaluation. We would suggest the protocol is used for high level definitions only, rather than attempting to use GIS as the sole tool for developing the Packs. Subjective considerations such as likely enthusiasm, potential credible local champions, absence of strong previous objection to GDF may also be considered as part of the broader evaluation. There should

also be an opportunity for credible community partnerships or other community representatives to indicate their wish for a GDF Briefing Report to be provided for their pre-EOI consideration.

District specific GDF Briefing Packs would be developed in the same way that other infrastructure and economic development plans are developed. Each Pack would offer balanced insights into both the opportunities and challenges presented to a particular District.

The GDF Briefing Packs could form the basis of direct discussion with potential local champions to enhance understanding, interest and engagement. This could then support the submission of an Expression of Interest.

The advantage of this approach is that it may engage some communities which previously gave only superficial consideration to being a Volunteer Community. This process would also provide a balanced and evidenced overview of the specific local attributes and issues involved. This will make for more effective community engagement in comparison with a generic approach which can tend toward negative assumptions in the initial stages.

Other focus areas

While recognizing precedent activity in West Cumbria, there is a case for encouraging collaboration with apolitical advisory partners. For example, Local Enterprise Partnerships (LEPs) are well placed to draw together important local issues with the advantages of being a Volunteer Community. LEPs can develop a compelling narrative that integrates a development route map with wider sub-regional development plans.

While the planning process rarely operates completely outside the political sphere, the process is more likely to be effective if non-aligned actors have the opportunity to champion the vision based on informed factual analysis.

The formulation and legitimacy of the Decision Making Body (DMB) is another aspect of the process worthy of closer examination. While some precedent may have been set in Cumbria, further consideration is merited in terms of the DMB composition. Clearly, we have to recognise the relative benefits and disadvantages that accrue at different levels in the community – parish, district and county levels, for instance. As such, it is important that the DMB is democratically robust and representative of the local community and longer term public policy priorities.

Conclusion

We submit that even an early stage Expression of Interest by a Volunteer Community requires significant work to develop local engagement and political momentum.

Without the data to drive support in the early stages of the development process, an information vacuum can form that may generate uninformed and often negative speculation.

The best way to combat this challenge is to articulate and disseminate balanced, informed and objective information that highlight the benefits and address potential concerns in a sensible manner.

We also believe that it is better to focus efforts on highlighting a spectrum of specific short, medium and long-term local advantages rather than mounting a defence against each and every dis-benefit.

Developing GDF Briefing Packs for potentially receptive communities will provide a solid basis for a balanced debate about the positive and negative aspects of hosting a GDF.

We believe that this approach will engage a broader range of potential Volunteer Communities while providing the basis for a balanced and well-informed democratic debate.

In conclusion, this response proposes a process that could help selected communities understand the potential benefits in sufficient detail to arouse their interest in taking the GDF process to the next stage. Issues of trust and fear must be addressed throughout this process by, for example, communicating clearly the concepts of scientific uncertainty, using trusted authorities to give independent perspectives, and providing objective evidence from various views, both negative and positive.

However, in order to find communities that will be open to engagement in the first place, these issues of trust and fear will need to be dealt with at a wider scale within society, not just with specific communities. To address the issues of public trust, the messages about nuclear waste disposal need to be presented as impartial, inclusive, and properly scientific. They should ideally be conveyed by trusted authorities who do not have an interest in any particular outcome. This transparency and clarity will also help to address issues of fear, but addressing fear also requires a deeper understanding of its causes. A deeper understanding of the concerned stakeholders and their issues will ensure that messaging reaches the right audiences and in the right language. Importantly, this public level approach to addressing stakeholder concerns will allow the discussions to move from the concept of nuclear GDF, towards whether GDF is appropriate for a particular site and its community.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

Review the process to accelerate the early phases in order to reach the Site Investigation (sub-surface screening). Consider running several of the original sequential stages in parallel.

What do you think could be done to attract communities into the MRWS site selection process?

There should be a more clearly defined structure to the Community Benefits Package for any potential Host Community to ensure that local communities and their elected officials appreciate the benefits of early engagement in the MRWS process. This would be beyond the original Engagement Package designed to cover the direct cost of engagement. Clear communication of the benefits and mechanisms could draw on experience from other countries, particularly where the longer term economic benefits are better understood in terms of stable jobs and growth in spin-off industry.

It is possible that volunteering for the Phased process should attract tangible benefits at each stage but subject to the pre screening criteria use under MRWS; perhaps at the beginning of each stage rather than the end to avoid any suggestion of inducement to continue. The existing definition of "community" in MRWS remains sound.

What information do you think would help communities engage with the MRWS site selection process?

There would be some benefit in refreshing the publicly available information on areas of the country with potentially suitable geology at the 200m to 1000m depth. Is it possible to identify those areas of the UK that do not have suitable geology in simple terms? While it is impractical to apply sub-surface screening criteria across the UK (statement from MRWS) is there a coarse screen that can be used. Essentially, West Cumbria is not the only viable choice and alternative communities need to understand the significance to attract new Expressions of Interest. Some of this information may date from NIREX days but is difficult to access; even some of the British Geological Studies supporting MRWS are not readily available today.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
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There needs to be far more information and certainty at an early stage. In Cumbria the decision to proceed to stage four was to be made without knowing:-

- 1. The inventory to be stored in at the repository, above and below ground and the length of time material from new build reactors would need to be stored above ground.**
- 2. The nature and general extent of the benefits package.**
- 3. The wider negative impacts on the economy of Cumbria. The report on this had not been completed. It is important that communities have a full picture of the benefits and dis-benefits of siting locally and in the wider economy.**
- 4. The extent of the above ground works and any the nature, if any of ventilation and emergency shafts directly above the underground facility.**

The geology needs to be addressed in far more detail before the decision can be made allowing a suitable geology to be a critical filtering factor for potential sites. Again, using Cumbria as an example a repository in the granites under the Lake District National Park is far more sensitive and will have far greater potential dis-benefits than a repository near to existing nuclear facilities.

The right to withdraw from the process and the outline of the benefits package needs to be put into legislation, not just left at ministerial discretion. The right to withdraw also needs to take into account the “wider local interests”, see below.

The potential impact on neighbouring authorities needs to be taken into account. What if the underground or surface facilities are very close to the boundary of another district council. Some authorities close to the surface facilities and/or repository may be left very much at risk of dealing with both the perceived and real risks and facing impacts which they may be powerless to 'compensate' for by drawing on a benefits package or powerless to mitigate against in other ways. The process needs to provide a voice for those authorities.

To attract communities there needs to be a far stronger, and guaranteed, benefit to the community. The transfer to underground storage, of the waste currently at the Sellafield site, is a major incentive for West Cumbria. What size of incentive would be

required to attract a community elsewhere?

The information needed to help communities engage, is very much as above. Communities need to be able to assess the impacts and decide “what is in this for us”.



Site Stakeholder Group

Dear ,

With reference to your letter 12th March, Berkeley SSG considered your request at our SSG meeting on 30th April. We wish to make the following points regarding the experience of the running MRWS process.

The government approach had been for communities to volunteer. No community would willingly volunteer without knowing if the geology of the area was suitable. No Council would want to risk being told that their area was not suitable before volunteering. It would be far better to first identify suitable areas and then ask the communities to volunteer.

It is illogical to consider an area away from Sellafield which has the highest volume of the highest level waste, and then transport it away from the area. It would be a grave risk to public safety say for it to move down to Dungeness.

Cumbria has the best possible skilled work force to deal with waste and packaging/processing of this material. They would have to be relocated away from the area if Cumbria was not selected and the impact of the loss of such a skilled work force on the local economy would be significant. The residents of Cumbria understand living with a nuclear facility in their community.

The presentations that SSG members have attended, given by DECC and the NDA have been well presented and the teams involved have made the complexities of the situation understandable. Perhaps the benefits of having a GDF should have been more clearly explained.

Yours sincerely



Berkeley SSG

Telephone	REDACTEDREDACTEDREDACTEDRED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes/No
Would you like your response to be kept confidential? If yes please give a reason	Yes/No

The Government is interested in your views on the geological disposal facility siteselection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- **What aspects of the siteselection process in the MRWS White Paper do you think could be improved and how?**
- **What do you think could be done to attract communities into the MRWS siteselection process?**
- **What information do you think would help communities engage with the MRWS site selection process?**

Site Selection Process

We suggest it would be better to filter out areas that are obviously unsuitable for geological or other reasons, before inviting expressions of interest to avoid any further abortive proposals.

Stage 1 should therefore comprise a high-level evaluation of conditions in each area, using published geological information, and other data on population, environmental, socio-economic and transport infrastructure available from national sources. The suitability of each area should then be assessed using the “sub-surface screening criteria” in Annex B of the White Paper, and the other National Criteria identified in the 2012 Framework. The results of this assessment should then be published (Stage 2).

Stage 3 should involve inviting expressions of interest from local authorities and Local Enterprise Partnership in areas that the assessment shows are likely to have suitable geological and other conditions to provide Potential Candidate Sites. Any areas put forward would then be subject to further assessment, using Local Criteria, SEA, HRA (where required), and possibly also site investigations, as set out in Stages 4 – 5, before Candidate Sites are chosen, appropriate permissions are obtained, and facilities implemented (Stage 6).

Site Selection Criteria

National Criteria

Annex B of the White Paper (2008) identifies “initial sub-surface screening criteria” covering natural resources, groundwater, geological stability and geotechnical issues. The 2012 Framework identifies further national criteria for identifying Potential Candidate Sites:

- Geological setting (which we assume refers to criteria in White Paper)
- Potential impact on people
- Potential impact on the natural environment and landscape
- Potential effect on local socio-economic conditions
- Transport and infrastructure provision
- Cost, timing and ease of implementation

We would support the use of these criteria in the initial filtering process at Stage 1.

Local Criteria

The 2012 Framework also indicates that as well as the national criteria identified local criteria, derived from local planning policies, should be taken into account. We would suggest the following local criteria would be appropriate to use at Stage 4 of the process.

Geological Setting

Mineral resources – resources of local and national importance included within a mineral safeguarding area (MSA) in an adopted local plan.

Geotechnical risks – areas included within Coal Mining Development Referral Areas defined by the Coal Authority, identified in an adopted local plan, or in local technical studies as having other geotechnical problems

Groundwater – areas included within Principal Aquifer and/ or Groundwater Source Protection Zones (SPZs)

Potential Impact on People

Proximity to large centres of population

Potential Impact on the Natural Environment and Landscape

Natural Environment – potential for harmful impacts on European Sites, and habitats and species of national or local importance

Landscape - areas defined in adopted local plans as being nationally or locally important for landscape, areas of Grade 1 – Grade 3 agricultural land

Potential Effect on Local Socio-Economic Conditions

Economy - Enterprise Zones, other areas identified in adopted local plans as requiring economic regeneration

Social Deprivation – areas identified in local plan and/ or Indices of Multiple Deprivation (IMD) within the most deprived x in the country

Health – areas identified in local plan and/ or local Joint Strategic Needs Assessment (JSNA) as having significant health problems linked to environmental conditions

Transport and Infrastructure Provision

Areas with potential to transport waste by rail or sea rather than by road

Areas of the national/ local road network affected by significant traffic congestion

Cost, Timing and Ease of Implementation

Cost - extent of geotechnical constraints identified above likely to result in abnormal costs

Timing – extent of geotechnical constraints identified above likely to result in additional time required to make site suitable for use, extent of other constraints likely to require mitigation and enhancement to deal with potential environmental and other impacts

Ease of implementation – range and complexity of constraints that need to be overcome, extent of potential public opposition

Engaging with Communities

There are unlikely to be any easy ways of “selling” proposals for geological disposal of radioactive waste to local communities, particularly in areas where hazardous waste disposal or other waste management operations have already caused problems.

Experience in Walsall Borough suggests that communities affected by hazardous waste disposal in the past have long memories, and will – with good reason – be highly suspicious of any new waste disposal proposals, let alone proposals for geological disposal of radioactive waste. They will not trust it to be safe whatever reassurances are given, and will not want to engage in a positive way.

If the government wishes to continue down the “volunteerism and participation” route, it should avoid identifying Potential Candidate Sites in areas where hazardous waste disposal has caused problems in the past. In view of the past history of some sites in our area, we would suggest the Black Country is towards the bottom of the list of search areas to consider.

Information

No communities are likely to volunteer unless they can see that the risks are minimised as far as possible, and that they will get some positive, tangible benefits in return. It will therefore be important to clearly set out:

- What the risks are likely to be and how they will be managed, e.g. what contingencies are in place if anything goes wrong;
- How the community can expect to benefit from agreeing to accept the waste in their area, e.g. how will DECC ensure that the “highly skilled and well-paid jobs” on offer will actually be available for local people, rather than outsiders, particularly in areas of low educational attainment?

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	Blackwater Against New Nuclear Group
Organisation Size (no. of employees)	
Organisation Type	REDACTEDREDACTED
Job Title	REDACTEDREDACTED
Department	
Address	REDACTEDREDACTED REDACTEDREDACTED  REDACTED REDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTED
Telephone	REDACTEDREDACTED
Fax	N/A

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

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- What information do you think would help communities engage with the MRWS site selection process?

Response to Call for Evidence: Review of Siting Process for a GDF Disposal Facility

1. Establish the minimum specifications for a suitable GDF location in terms of geology, demographics and environmentally sensitive areas.
2. Conduct relevant surveys to screen out unsuitable areas.
3. Publish a specification of the effects of a GDF on the location, the population and the economy of the area, including disbenefits and compensating benefits, projecting these into the distant future. The volumes and requirements of wastes from a new nuclear programme are currently unknown and must therefore be outside the scope of the present GDF waste programme.
4. Specify how the voluntarism principle will operate, be measured and over what radius it will apply. How the public will be informed and engaged in the process. How the final decisions will be agreed.
5. There must be a right for communities to withdraw from the process at any time up to commencement of construction or even after this if there is critical new evidence which undermines the decision to proceed.
6. The management body responsible for these processes and the relevant consultations on them must be objective, open, transparent, effective and above all trusted. The NDA and

DECC cannot fulfil the role.

7. Priority must be given to cleaning up the storage of existing stockpiles of nuclear waste in Cumbria since a suitable GDF host community may not come forward for many years if ever. These stores and other 'interim' stores must also be considered as a long term solution and therefore they require a similar critical evaluation and voluntary acceptance as a GDF. This must rule out the implementation of any of the current ad hoc proposals to create regional ILW waste stores in unsuitable locations on coastal sites which will become increasingly vulnerable to the effects of sea level rise, storm surge, tsunami and flooding.

8. This largely amounts to following recommendations which have been made in the past in various CoRWM reports and BANNG consultation reports.

CALL FOR EVIDENCE – MANAGING RADIOACTIVE WASTE SAFELY: REVIEW OF THE SITING PROCESS FOR A GEOLOGICAL DISPOSAL

Evidence of the Blackwater Against New Nuclear Group (BANNG)

BANNG Paper 19

Purpose of this Response

The Blackwater against New Nuclear Group (BANNG) has both a general and specific interest in the siting process for managing radioactive wastes. In general terms BANNG is especially concerned about two key issues. The first of these is the siting of interim storage facilities for long-lived intermediate level wastes which is an integral part of the long-term management leading ultimately to a geological disposal facility (GDF). The second is the management of spent fuel that will arise from a new build programme. More specifically BANNG is concerned with the implications of these two issues – long-term storage and new build wastes – for the Bradwell site.

The former Bradwell power station closed in 2002 but ILW in the form of the reactor cores and fuel element debris will remain *in situ* or in store on the site until the end of this century, possibly longer if no repository is forthcoming. And there is the possibility of ILW from Sizewell A and /or Dungeness being transferred to Bradwell under options being considered by the NDA. BANNG is opposed to this option for a number of reasons (which will be stated in our comments on the NDA's paper on options for siting ILW stores). BANNG is also opposed to the construction of a new build station on the Bradwell site, not least because it would mean the long-term storage of spent fuel at a low-lying coastal location vulnerable to coastal processes, storm surges and sea-level rise under conditions of climate change.

BANNG has responded both generally and specifically on these issues to various consultations from Government, NDA, nuclear industry, House of Commons Energy and Climate Change Committee. We would draw your attention especially to BANNG papers numbered 1, 2, 4, 5, 9, 13, 15, 17 which DECC will have received and which may be obtained from the BANNG secretariat.¹ We wish to reaffirm our concerns about the current plans and our opposition to further development of the Bradwell site. However, our main purpose here is to reflect on the broader issue of the MRWS process for managing the nation's highly active wastes (ILW, spent fuel, HLW) and to make suggestions for its improvement.

BANNG believes the voluntary process is fundamental to a successful siting process. But we consider that success can only be achieved through an open, measured and coherent process that takes full account of what is scientifically and practically feasible in the present state of knowledge. At this present time it is our view that the focus of attention should be on legacy wastes and upon securing safe and secure *storage* of wastes as a necessary stage in an integrated process which may ultimately lead to deep disposal.

Main Principles for Site Selection Process

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The MRWS siting process is based on the recommendations of the CoRWM1 report (2006) together with its implementation proposals set out in *Moving Forward* (2007a). The recommendations were underpinned by an extensive Public and Stakeholder Engagement (PSE) programme which provided necessary public confidence and trust. The CoRWM proposals were essentially adopted in the Government White Paper Cm 7386 (2008). However, both in its interpretation of the recommendations and in implementing the process the Government subsequently made some significant variations on the original CoRWM proposals. In particular, the Government put emphasis on achieving geological disposal as quickly as possible rather than the more measured approach to disposal set forward by CoRWM. Secondly, new build wastes were introduced into the potential inventory whereas the CoRWM recommendations applied to legacy wastes only. We consider these variations of emphasis and substance were primarily responsible for the decision in Cumbria not to proceed further in the siting process. We set out our analysis of the problems encountered with the process and proposals for improvement below.

Problems with the process

Too much emphasis on disposal

CoRWM had crafted a set of interdependent recommendations which set out geological disposal as the 'best approach' in the light of present knowledge. Geological disposal was not seen as the only approach and it had to be put in the context of a measured programme of safe interim storage, research and development and monitoring of alternative approaches. In implementing the process the emphasis has been almost wholly on finding a site for a GDF as the 'right policy' (Call for Evidence Introduction point 4) to be achieved as quickly as possible. BANNG believes the original intention of CoRWM should be reaffirmed. **Within the present state of knowledge deep geological disposal is considered the best approach for the long-term management of highly radioactive wastes but must be pursued in the context of emphasis on the need for continuing and safe long-term interim storage and research and development into disposal, storage and other alternatives.**

Too little emphasis on storage

The emphasis on disposal was to the neglect of storage. However, should a GDF be delayed or fail to materialise storage becomes, for the foreseeable future, the only option for managing the wastes. In any event the condition of much of the waste currently in store at Sellafield is a major problem that has been frequently recognised. It was clear during the debates in Cumbria that disposal, far from being the solution for Cumbria's problems, was a distraction from the problem of clean-up which requires priority, resources and time. Therefore, we believe that **emphasis must be placed on safe and secure long-term storage and clean-up especially at Sellafield and that appropriate resources and community benefits should be directed to that end.**

Key requirements for a successful siting process

Screening out unacceptable areas

A primary requirement before the voluntary siting process begins is to define the broad area of search by screening out areas unsuitable either for geological or other reasons. This was a key recommendation in CoRWM's implementation report (CoRWM, 2007a, p.20) though it appears to have been overlooked. A set of criteria should be established similar to the geological, social and environmental criteria detailed in the German AkEnd report (2002). Thus, areas that are clearly unsuitable on geological grounds would be eliminated as would areas considered unsuitable in terms of landscape or environmental quality, protected areas or areas close to large populations. Areas that may be more vulnerable on security grounds should also be avoided. Invitations to participate in a siting process would then be issued to communities in the remaining areas potentially available for siting a repository. **Criteria for screening out areas unsuitable for siting a repository should be identified, debated and applied prior to the inauguration of a voluntary siting process.**

Maintain the voluntarist approach

A key recommendation by CoRWM1 was that site selection should be based on voluntarism as the way to achieve public trust, confidence and acceptability. The volunteer principle has been applied in various ways elsewhere, for example in Scandinavia, Canada, Switzerland and several other countries and is now being applied in the post-Yucca conditions in the USA. We note that Government continues to hold the view that voluntarism is the best means for selecting a site for a GDF. The key to voluntarism is that there is an expressed willingness on the part of a community to participate in a programme of site selection backed by a right to withdraw from the process up to the point when development begins. In the case of Cumbria a voluntary process was undertaken although it was, perhaps, flawed in certain respects. However, we do not believe the process 'failed' because it did not proceed to the next stage. Rather, the decision not to proceed by Cumbria County Council could be taken as confirmation that the process was, indeed, voluntary. **The core principles of voluntarism, that are Partnership, Participation, Packages (both to support engagement and to provide benefits to enhance communities) and the Right to Withdraw, should be reaffirmed as the basis for any process of site selection for long-term radioactive waste management.**

Main features of an improved process

Need to focus on clean-up and safe storage of legacy wastes at existing sites

Given that storage is an integral part of long-term management and the possibility that a GDF may not materialise for a considerable time, if indeed at all, the safety, security and siting of stores requires greater priority in any revised MRWS process. Most of the spent fuel is stored or reprocessed at Sellafield and is likely to remain there for the foreseeable future.

Therefore, a primary requirement is to provide resources and unremitting commitment to effective clean-up and safe and secure storage at the Sellafield site.

Need for an integrated approach to storage

There is also a substantial commitment of ILW wastes in the form of graphite cores or fuel element debris (FED) at existing nuclear sites which is likely to remain until the end of this century and beyond. To this will be added ILW wastes from AGRs and Sizewell PWR as they are decommissioned over the years to come. So far there has been little policy debate

about the location of these stores beyond options put forward in the present NDA options exercise. The assumption is that all these wastes will ultimately be accommodated in the GDF. Over the long-term the conditions at the potential sites become a significant consideration.

The future management methods and siting options for these wastes are unclear and unconsidered especially if a GDF does not appear. The options include the possibility of regional stores for these wastes. BANNG believes the long-term storage of ILW wastes and possibly spent fuel at nuclear sites is an issue of public interest, especially for those communities who may have to host them for an indefinite period. A siting process based on principles of voluntarism for long-term storage as well as for disposal is necessary. CoRWM foreshadowed this possibility: 'It is clear that CoRWM's recommendations must be applied at least to new central or major regional stores at new locations if CoRWM's recommendations are to inspire public confidence' (CoRWM, 2007a, p.10).

The storage of existing and future arisings of ILW should be subject to an integrated process of site selection based on consideration of future site conditions, costs, radiation exposure and environmental impacts. The process should undertake public and stakeholder engagement with relevant communities and application of the voluntary principle including compensation and benefits for affected communities.

Focus on legacy wastes.

The CoRWM proposals applied to legacy wastes, that is those wastes already created or which could be anticipated as arising from the existing nuclear programme. This did not include wastes from new build which CoRWM argued introduced different technical, social and ethical issues requiring a separate process of public engagement. It should be noted that if new build occurs then spent fuel will be added to the inventory at power station sites and would need to be subject to the siting process indicated above. CoRWM took no position on new build but stated its report did not offer a green light to the further development of nuclear energy. CoRWM's proposals for legacy wastes had achieved public support and confidence based on an extensive PSE programme. The introduction of new build into the MRWS process has led to uncertainty about the inventory, the time-scales for implementation and the technical issues to be considered. Indeed, it seems clear that the nuclear industry and Government together regard achieving a site for a repository as soon as possible as a means for justifying the claim that they are 'satisfied that effective arrangements will exist to manage and dispose of the waste from new nuclear power stations' (DECC, 2010, p.18). To the contrary, **in order to sustain public confidence the process of siting for a possible GDF must be confined to legacy wastes only in the first instance. New build wastes should be subject to a separate process of public involvement and political legitimation.**

Clarify the Decision Making Process.

The siting process as envisaged by CoRWM calls for staged decision making with key decisions being taken democratically on the basis of recommendations by a siting partnership, consisting of a broadly based membership of stakeholder and public interest groups. The idea was that participative democracy would be embodied in the Partnership which would seek to ensure public support and approval for recommendations that would be put to representative authorities (in this case local authorities) for endorsement or ratification. BANNG considers that the process operated in the case of Cumbria had several defects. One,

was that the local authorities had a considerable influence in the Partnership in terms of membership and chairmanship. Another was the problem of assessing and interpreting community support (a notoriously difficult area). Third, was the failure of the Partnership to make recommendations for the endorsement of the Decision Making Bodies (DMBs). And, fourth, was the concentration of decision making in the executives (cabinets) of the relevant local authorities. A fifth was that the DMBs were left to make their own decision rather than to ratify the recommendations of the partnership. **The principle of staged decision making through participation in partnership and ratification through representative democratic authorities should be reaffirmed. The membership of partnerships, the definition of relevant communities, the evaluation of community support and the role of decision making bodies should be clarified.**

Defining communities

The definition of community is clearly a very difficult problem. CoRWM considered the issue at some length in its report on implementing a partnership approach (2007b). The problem became manifest when community views and preferences were being assessed in Cumbria. A basic problem is the distinction between those communities which provide formal 'consent' for siting proposals (in this case local authorities as DMBs) and those which would actually be most affected by the outcome (especially potential host communities). There is also the difficulty of evaluating consent, given the many different communities and the problem of representation, measurement and interpretation. **The process of democratic site selection through partnership must endeavour to achieve consensus on whether and when to proceed. However, in order to achieve consent there needs to be careful definition of community in the sense of where the authority to proceed lies and where the power of veto can be exercised. There needs to be a broad public debate on these matters.**

Community benefits and enhancement

Community support and benefits packages are crucial to successful implementation. Community support should be seen as a necessary incentive to enable communities to participate in the process through information, research, opinion surveys and deliberative forms of engagement. Once an area has been identified as a potential host for either a storage site or an underground repository a benefits package will be necessary both to compensate and enhance the community. The purpose will be to enhance well-being, 'those aspects of living which contribute to the community's sense of identity, development and positive self-image' (CoRWM, 2007a, p.12). The basic premise must be that a community is not made worse off through blight, negative image or stigma; rather, it should be enabled to develop community facilities, infrastructures and opportunities that improve its identity and economy. **Community enhancement must be seen as an integral part of a process designed to encourage participation and compensate and enhance communities who volunteer to host a site for storage or disposal.**

Recommendations for Improvements to the Site Selection Policy

From our analysis of the site selection policy in principle and in practice, we would present the following views and recommendations.

1. The fast track approach to finding a repository site should be abandoned. The process for finding a site for a GDF should be more measured taking the necessary steps and time needed to achieve a decision based upon public and stakeholder confidence and support.
2. Geological disposal and storage should be seen as separate but related and interdependent issues. Storage should be considered as both a prelude to disposal but also as a separate approach.
3. Before the voluntary siting process begins there should be a screening process undertaken to eliminate from consideration those areas deemed geologically unsuitable as well as those of high landscape or cultural value, areas of ecological protection and highly urbanised areas. Screening criteria should be the subject of public and stakeholder debate.
4. The voluntary process for siting stores and a possible repository for legacy wastes based on partnership, participation and packages should be reaffirmed. The right to withdraw up to the point of development must be guaranteed.
5. The clean-up and management of existing wastes in long-term safe, secure and robust stores should be a matter of urgent priority.
6. Consequently, there should be a separate process for siting stores for ILW (and possibly new build) based on the principles of voluntarism and partnership.
7. The GDF should not be seen as a means of legitimating new build. Any wastes arising from new build introduce distinctive issues and should be subject to a separate process.
8. The membership of siting partnerships should be balanced and representative of the wider community. Local authorities, the nuclear industry and Government, which are responsible for approving and implementing proposals, should have observer status so as not to prejudice their decision making roles.
9. An independent body to oversee the whole process as proposed by CoRWM should be considered.
10. The siting partnership should be responsible for ensuring public participation and support for proposals. The partnership should make clear recommendations to the DMB as the elected body responsible.
11. The DMB should normally ratify the recommendations of the partnership at each key stage in the process. The ratification should be by the full membership of the DMB, not just by its executive.
12. In order to establish an effective and acceptable siting process. there should be at the outset discussion and agreement of key concepts and definitions such as community, decision making body, interim storage, screening criteria, survey methods and so on.
13. Packages to encourage community participation and to enhance communities willing to host sites should be defined and built in as an integral part of the voluntary process.
14. It is axiomatic that at all stages and all levels there is a commitment to the principles of participation, openness and transparency.

REDACTEDREDACTEDREDACTEDREDACTED
on behalf of the Blackwater Against New Nuclear Group (BANNG)

9 June, 2013

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Department for Environment, Food and Rural Affairs (Defra)(2008) Managing Radioactive Waste Safely, A Framework for Implementing Geological Disposal, White paper Cm 7386, Defra and the Devolved Administrations, London, TSO

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDCATEDREDACTED
Organisation / Company	Bradwell for Renewable Energy
Organisation Size (no. of employees)	
Organisation Type	REDACTEDREDACTED
Job Title	REDACTEDREDACTED
Department	
Address	REDACTEDREDACTEDREDACTEDRED ACTEDREDACTEDREDACTEDREDACT EDREDACTEDREDACTEDREDACTEDR EDACTEDREDACTEDREDACTEDRED
Email	REDACTEDREDACTEDREDACTEDRED
Telephone	REDACTEDREDACTEDREDACTEDRED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Viewing this from afar, yet as involved as any, because most of the nuclear waste from the now defunct Bradwell nuclear power station has ended up at Sellafield, we have been concerned by the progress of the volunteering process in Cumbria.

BRARE was a participant in CoRWM's deliberations prior to the MRWS programme being put into practice. The idea of what constituted a community was widely discussed. How far do you reach into that community? What are the boundaries? Do local government representatives have the ear of all levels and of all ages? Do these representatives vote in a disinterested fashion, or do they toe the party line? Should representatives of local interests and national NGOs have a vote? These questions are as relevant now as then, as they have not been satisfactorily answered.

We were disconcerted to learn that a poll in 2012 showed that 80% of the general public around Sellafield were either only slightly aware or not aware at all of the issues surrounding a geological repository. This shows the consultation process has failed at an early stage. The issues should be taken to the people into schools, work places, into community groups. All sides of the arguments should be aired. Those respected constituencies not paid by the state should be funded to participate, especially in giving counter views.

This NGO signed up to the CoRWM 1 conclusions because of a clause that recommended a continuum of R&D in a search for alternatives to deep disposal that might emerge in the fullness of time and knowledge. It is difficult for local authorities to volunteer with the closed approach of one "solution", that of geological disposal. It is a leap in the dark for them. The public express ethical and environmental concerns that do not often chime with the desk-bound rationalisations of decision makers. These concerns should be raised to the same level of importance as the study of technical

competencies.

The issue of trust is huge. It has to be earned. A big stumbling block is the proposal of new nuclear build. It is generally recognised that historic wastes have to be dealt with in some shape or form, but to conflate historic waste issues with the prospect of new build wastes will put many parties off even considering volunteering. No wonder only Cumbria volunteered.

It is to be hoped that there will be more to this consultation than this on-line method. There must be a more direct approach to people of all backgrounds and persuasions.

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The need for improved geological evidence to inform Stage 3 decision - information on the geology of an area

We consider that improved geological evidence should be made available at an earlier stage in the MRWS process to help to inform and guide the decision making body (DSM) for the host community in their decision on proceeding to the next stage of the process (Stage 4). Bringing forward some elements of the desk-based assessments that would take part in the subsequent stage (Stage 4) of the process would, at least in part, address the inherent uncertainty that is likely to exist at the end of Stage 3 for most parts of the UK.

We suggest that with a modest upfront investment, additional work to provide further information about the suitability of an area could be gathered within a timescale amenable to Stage 3 of the current process. This could start during the Stage 2 exclusion process if appropriate to do so. Such information might be obtained through re-interpretation of existing geological and geophysical data by a desk-based study. The acquisition of new data by non-invasive techniques such as airborne and/or ground-based geophysical surveys and its interpretation could also be considered at this stage if it is useful to improving the geological understanding of the area. This type of survey is likely to be required early in Stage 4 and undertaking it in a timely fashion may help to identify potential sites within un-excluded areas.

Such studies could be provided as an option to potential host communities at the time the initial geological screening is undertaken (at the beginning of or during Stage 2).

More open debate between scientists

Once communities begin to engage with the MRWS process, we believe that there is a need for a proper, balanced and open scientific debate. From a scientific perspective, we do not feel that the debate relating to the recent MRWS process in west Cumbria was balanced. This experience demonstrated the need to explore how best to communicate the scientific information required to allow communities to make informed decisions. More robust challenge to hypothetical 'what if' sites is required.

Timing of site screening

We consider that application of the exclusion criteria should be undertaken as soon as is practicable following expression of interest, so that screened-out areas are eliminated from further consideration at an early stage. This is particularly important where the majority of an area may be excluded.

Shale oil production.

The MRWS paper deals only very briefly with shale oil production yet this now promises to be a widespread activity involving drilling to considerable depths and hydraulic pressure to crack open oil and gas bearing shales. It is a sector in which I am currently doing work since

1. Insurance of this fracking process is needed and
2. There is global evidence that earthquakes sufficiently strong to cause accidents to nuclear installations can be created by fracking and subsequent disposal of liquid wastes to deep wells.

I shall probably be able to describe this work to the MRWS team.

confidential? If yes please give a reason

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The Social Responsibility Forum and Environment Group of Churches Together in Cumbria met together on 4 February 2013 to discuss the issues around the Managing Radioactive Waste Safely siting process.

The view of that meeting, which I conveyed to the Secretary of State for Energy and Climate Change in letters dated 27 February and 29 May 2013, was that it is the UK Government that should be seen to be taking responsibility for the nature and location of a nuclear repository for the nation because it is the safety of future generations of Britons, and neighbouring countries, which should be the overriding factor.

It has long been accepted that parts of the UK other than Cumbria have much more promising geology for the long term storage of nuclear waste.

It was the 'voluntarism' issue, fuelled in part by the hope of economic benefits in a time of economic uncertainty, which focussed the search in Cumbria because in the whole of the UK only the three local authorities covering West Cumbria (Allerdale District Council, Copeland Borough Council and Cumbria County Council) showed early and serious interest in volunteering to proceed. This placed the decision as to whether to expend vast sums on the search for a possibly sub-optimal nuclear repository de facto in the hands of local councillors in Cumbria.

The meeting believed most strongly that it was wrong for West Cumbria to be evaluated in isolation as a possible site. While we would accept a decision to investigate further the geology of West Cumbria, this should be part of a wider investigation of other potential sites of appropriate geology in the country, including deep clay formations.

The meeting emphasised that any repository must meet certain universal criteria. It should be:

- in geological formations that are seismically stable and have provable water impermeability;
- engineered to prevent water penetration and to allow interception, removal, and if necessary treatment of any water that does enter;
- deep enough to exclude possible future glacial disturbance and immune from any terrorist action on the surface;

- monitored to alert managers to any leakage of radioactive material;
- capable of entry to retrieve the stored material should containment fail or a better method of long-term storage or disposal present itself in future.

The meeting welcomed the assurances given by Government that wherever a repository is built there will be a package of benefits in recognition of the service being rendered by the local community to the nation. The meeting was aware that in West Cumbria other major energy-related developments, including at least one new nuclear power station, are being considered and it is also the scene of major offshore renewable developments. These should also be backed by measures designed to enhance local communications and provide integrated social and economic benefits to the community as a whole.

The meeting stressed that while community acceptance of any possible repository site is of course desirable, the imperative is its environmental suitability for thousands of years to come. A bad site remains a bad site even if it currently has a willing community, while a good site will be safe effectively forever, whoever lives on top of it!

The meeting considered that in order to find the optimum solution to the problem of nuclear waste, the Government ought to manage a process whereby all potentially promising areas of England should be assessed for geological suitability before any decision is taken about the right location for a repository facility and that the Government should not continue to adhere to the voluntarism principle even if that prevents geological disposal taking place in the UK altogether.

This remains the position of Churches Together in Cumbria.

We hope that the Government will take full responsibility for this vital issue back to where it properly resides, in Central Government, and not return it unfairly onto the shoulders of local authorities in Cumbria or elsewhere.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

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Communities against Nuclear Expansion is expressing the views because of our understanding of what is and has happened at Sizewell, and what may happen.

We are aware of the problems because of research we have undertaken and are gravely concerned that after 50 years of producing radio active waste we are still seeking answers.

My group feel very strongly that the problems of all wastes from Nuclear Power plants are so varied and complex that until we have a full comprehensive plan to deal with all the complexities we should not consider building further plant.

However

1) We believe there needs to be much more consideration given as to the short term and interim storage of all types of RA waste. Sizewell A spent fuel is being shipped to Sellafield, but we still have a great deal of ilw and llw, at present consideration is being given to its storage. The ilw may well end up staying at Sizewell A in yellow storage boxes. There is also the long term problem of the graphite core of Sizewell A which will not be dealt with for many years but will then need a resting place. Maybe this too will stay at Sizewell.

2) At present EdFE Sizewell B are to build a Dry Fuel Store. The local community were not told this when Sizewell B was built. So we have had this facility imposed on us. There is no where else for the hlw to go. As from 2015 the pond at Sizewell B will be full. The choice/consultation was to either shut down the plant or find an alternative to the pond.

There is no compensation to the local people of Leiston for the DFS of hlw, only £200,000 to the AONB management + £20,000 per year. Leiston is the nearest town and outside the AONB and will receive no benefit from having hlw on our coast for up to 100years. Compensation should not be a bribe to console people but a realisation by Central Government of exactly what they are asking of Communities.

We recognise the hlw has to be stored, monitored and managed, but local people should be properly compensated and even more importantly told the absolute truth about the issues. They certainly should NOT have it forced upon them.

3) Our understanding is that the casks and materials to be used for the storage of h/w have NOT been tried and tested. We understand from our experience of Sizewell B that the spent fuel will be sealed into containers and then into concrete silos. (We also understand that there is still controversy around the materials to be used)

The silos are then to be stored in the DFS where they will be monitored and managed and there they will stay until a GDF is ready to accept them. If there is a problem with the packaging they will have to be re-packaged.

If these packages were to go into GDF How are they to be monitored and how are they to be transported? Particularly as the last time we asked we were told each silo would weigh around 120 tonnes.

If new stations are built the same issues will arise. Have the community around Hinkley C been asked their opinion of this situation?

It does the Nuclear industry no favours when people are not told all the truth or are told half truths.

If the scenario is that more DFS are to be built to contain h/w people must be told as part of the planning process for new build. This may also be the case for storage of spent fuel from AGR stations.

4) We are very concerned about the wording Geological Disposal Facility . Is the h/w to be disposed or would it have the ability to be retrieved? This needs very careful consideration.

Disposal means just that, would a better word be Repository, which seems to be what other Governments are considering.

People are very concerned that we think we can dispose of radio active waste into a facility under ground and consider it safe. We firmly believe that all radio active waste should be managed in a way which enables it to be observed, monitored, managed and guarded.

But this also goes for any under ground facility, it must be proven to be 100% safe, so as to prevent any leakage into the surrounding geology, including water courses. Any previous ground working such as coal mining and future such as fracking may render any underground storage as inoperable.

Therefore the geology must come first, and it should be in the least obtrusive place, not in a National Park or in an AONB. Until as such time that it can be proven that the casks and containment are 100% "safe" Any *disposal* should not be attempted. When it is considered that the casks are "safe" maybe underground storage could be considered.

We are not convinced at present that any geological storage is feasible, or the safest option.

As the government presses ahead with seeking facilities for either above ground, or below. We believe communities should have all the facts laid out before them with NO half truths. Neither should they be bribed into accepting something which is abhorrent to them.

Conclusion

We would like to see a clear *fully laid out plan* for how the all the various types of waste which we have created over the past 50 years, are to be managed, which are acceptable to the majority.

To achieve the best outcome there needs to be a well trusted competent person to pull all the strands together to come up with a long term plan. This will only come about if Communities, NGOs, and political parties etc all work together.

The lead person should not be someone from the nuclear industry, nor with a political mantle.

Whilst cost is something which obviously needs to be considered, the overall costs must not fall on the tax payer but also on the Industry. Whilst cost obviously is a major issue the sustainability and environmental considerations must carry equal weight.

We apologise for not answering the questions you asked but we have given you the considered view of a locally based group, which we hope is helpful.

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Email address: radioactivewaste@decc.qsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	Copeland & Workinton Liberal Democrats
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
	
Email	
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme? Yes

Would you like your response to be kept confidential? If yes please give a reason No

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- 1) The information provided to communities regarding available options for safe storage of nuclear waste in West Cumbria failed to be updated as new evidence became available during the lifetime of the consultation process eg the online video of what other countries were doing was not updated to reflect this new evidence.
- 2) The information provided to communities regarding emerging options for processing (rather than storing) spent waste was not analysed or consulted on during the lifetime of the consultation process.
- 3) The consultation process was undermined by focusing on voluntarism before acknowledging that the criteria for Safe Storage of Nuclear Waste should be determined by geological suitability and sound engineering solutions to provide a multi barrier protection plan.
- 4) By 2013 the consultation process lacked the openness and transparency needed and ultimately failed to promote a consultation process based on trust. The consultation process had not been updated to engage with the general public through social media
- 5) The apparent 'grooming' of leading organisations within Cumbria by the Nuclear Industry and subsequent pressure brought to bear by the DECC and Baroness Verma also indicated that voluntarism was simply a smokescreen for the true intention of imposing deep disposal of nuclear waste on communities in Cumbria.
- 6) All the relevant bodies associated with the Nuclear Industry and the safe storage of nuclear waste should have a balanced membership which can provide an open and transparent challenge on the basis of being a "critical friend". This was often not the case.
- 7) The process was further undermined by the evidence provided by Prof Smythe and Hazeldine and the statement from Deerlove that it would be highly unlikely that any suitable site for deep disposal of Nuclear Waste would be found in Cumbria
- 8) It became apparent during the consultation process that there were geologically better options for the storage of Nuclear Waste, in the UK, than Cumbria and in particular Copeland and Allerdale further undermining trust and public confidence in the consultation process.

- 9) The consultation process focused on deep disposal at the expense of any other solution including the development of an interim storage facility; shallow or sub surface disposal with an engineering solution that included the possibility of access and spent waste being retrievable should circumstances change or new technology be developed for new uses of the waste or new safer storage options be developed.**
- 10) It is now essential that work begins as a matter of urgency to put the existing intermediate and high level waste into a safe form to store in an intermediate storage facility.**
- 11) The community benefit package was not fully explored and many were of the opinion that it constituted a bribe rather than an acknowledgement that Cumbria already holds the vast majority of the Country's Nuclear Waste that is in need of urgent investment to make it safe.**
- 12) The considerable investment and financial stranglehold that the Nuclear Industry has on the communities of Copeland and Allerdale was also apparent during the consultation process and clearly had an impact on the final deliberations of the Copeland and Allerdale Councils and their positive votes to proceed to stage 4. This did not reflect the considerable public opposition to the deep storage of nuclear waste in areas identified as being geologically unsuitable.**

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Below is the response from Copeland Borough Council to the Government's Call for Evidence - Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility. The submission is provided following a 4 stage internal Council review of engaging with the process up to the decision about participation into stage 4 on 30th Jan 2013. The review which provides much of the evidence to support this submission involved a technical review of the site selection process as described within the MRWS White Paper, an assessment of the Council's role and engagement with the West Cumbria MRWS Partnership, a review of the Council's decision making processes leading up to 30th Jan and a workshop to gauge the views of Council Members of the wider community and stakeholder engagement in the process.

In addition we would cite the final report of the West Cumbria MRWS Partnership as a key foundation of the evidence which has helped shape our submission and where specifically appropriate we have highlighted opinions and advice contained within the report in our comments below. The final report is a full account of over 3 years work of the partners in West Cumbria taking forward the MRWS process and it contains some valuable advice and opinions that would help shape a new/revised process.

Finally as one of only 3 Council's that has direct experience of implementing the MRWS process in Copeland and West Cumbria as described in the White Paper, and as the recognised lead authority in that process, we would conclude that the process is broadly acceptable and, subject to some areas for improvement around issues about bringing the stages together, providing clearer information and decision making, as described below, the process is sufficient to be progressed and re-presented to the wider community.

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

We support the continued focus on a voluntarism approach. We suggest that any new approach should further define the expectations of national Government, local government and local stakeholder partners around voluntarism and partnership working, to reflect the/any implications of the recent introduction of the Localism Act.

Any new approach needs to have a clearly defined and identified national advocate body (putting across the case for geological disposal over other alternatives) containing independent experts with the resource to do the task and a clearly defined role for Government/DECC/NDA to continually and consistently provide the Government's policy position. There could also be a local component to this body to ensure that locally raised issues are dealt with locally in the national context through locally based advocates? The lack of such a body in the West Cumbrian MRWS experience led to a 'vacuum' in the pause period which provided an opportunity for those individuals and organisations against progressing further in the process to voice their concerns and with a response from Government and the NDA seemingly limited to responding to facts rather than expressing opinions.

The new approach should clearly say how the Government intends to deal with planning arrangements for a GDF. In a future consultation you may wish to seek views on the options that are available for dealing with planning matters and the role of Strategic Environmental Assessments (SEA) in the site selection process. Both areas were matters for considerable debate within the work of the WC MRWS Partnership and appeared as areas of uncertainty in the final report.

In a new approach the decision making body should be clearly defined as the local district council in a two-tier situation (or unitary authority where appropriate) where the search for a site would be undertaken and where the impact of such a facility will be felt. In the West Cumbrian experience it was clear that individuals living over 50 miles from Copeland had the opportunity to veto local decision making often based on a lack of accurate information and this notably undermined the decision making process. We would also suggest that you test the concept through consultation that the host community at the initial stage of the site selection process should be the local district or unitary authority. We also believe that such a change in approach will reflect and be consistent with the localism agenda described above.

Any new approach should allow for the site selection process and any necessary geological studies to be completed (ie stages 4 and 5 combined) before any further decision about participation is taken. The experience of the process to date and the feedback we have had is that we need to have all the information available on potential sites to be able to make a decision about the next stage. We would also suggest that you may wish to seek views through consultation on the role of Decision Making Bodies in the process. At a minimum it is our view that there is a role for a local authority to hold the right of withdrawal on behalf of the local community and any new process may require a local authority to be at the centre of efforts to manage stakeholder engagement in a lead authority or accountable body type role. However it may be more appropriate to explore views through the consultation on the potential for a local referendum once all the necessary information is available as the means for determining the decision to move to the next stage. We would also suggest that combining stages 4 and 5 would reduce the number of decision points, where experience shows that such decisions are confused with a commitment to proceed and would allow for the community to be asked to consider less complex decisions based on a more complete set of information.

A new process needs to allow for local partners to impose local site selection criteria at the commencement of the site selection process. This is quite fundamental and is based on both what the WC MRWS Partnership concluded and our own views around the early stages of the site selection process.

- What do you think could be done to attract communities into the MRWS site selection process?

There needs to be a clearer definition of how a GDF relates to current energy policy (including nuclear new build) and emphasise the national significance of the project. Outside of the immediate area the significance of the approach had very limited understanding.

A new approach needs to clearly say why a GDF is the most appropriate means of dealing with this waste and explain why other alternatives are not suitable and for what reason. Our experience is that the current Government policy on higher level radioactive wastes was continually challenged as the most appropriate way forward and alternatives suggested but were not consistently responded to as to why they were not acceptable.

Any new approach needs to clearly articulate the technical role of a GDF, the scope/inventory and ownership of the wastes and the process of radiological decay. Levels of understanding around such matters is clearly limited and a number of 'myths' exist which need to be dispelled. Such analysis should also include the current Government view on retrievability and why it is seen as a significant issue by some.

The Government needs to clearly state how it intends to put the right of withdrawal and community benefits on a legal footing and clarify how responsibility for the right of withdrawal (held by local authorities close to the area that has expressed an interest on behalf of the whole community that they represent) meets community expectations around voluntarism. Government may wish to seek views on the options available to Government and local communities including an analysis of the pros and cons of each.

Government should consider the right of withdrawal existing up to the point that a planning application (or similar) for the project is approved. This would give communities additional confidence in the process allowing local communities to exercise their right of withdrawal if the design process for the facility identifies significant local concerns.

Government should consider international experiences of how it might make available community benefits to an area in advance of a GDF taking place, recognizing the national significance of the project and the perception of impact on an area even in advance of a commitment to take the proposal forward. This accords with the work and advice of the WC MRWS Partnership around impacts and in part reflects the early work which was subsequently abandoned after the 30th Jan decision around brand management.

Government should make it clear that the costs of engagement for local partners will be fully reimbursed. In the current climate of local government spending cuts there is no option! And Government should consider a mechanism for making funding available for local partners on a programme basis and not subject to annual assessment and approval.

The final report of the WC MRWS Partnership provides a useful summary of the uncertainties that are associated with GDF development and Government should consider how such uncertainties might be reduced or removed. Uncertainties include those around the scope of the inventory of wastes earmarked for disposal, potential for phased waste emplacements and phased permissioning, potential for waste retrieval and generic R and D.

Research and development is one of the most important uncertainties in the programme and to help generate and maintain confidence in the process Government should consider the means to making the R and D programme more visible and with the opportunity for the programme to be monitored and reviewed by any participating partnership.

- What information do you think would help communities engage with the MRWS site selection process?

The work of the WC MRWS Partnership and the issues covered in their final report is a useful checklist of the sorts of information that any local community would want to know when considering engaging with the site selection process. These would include;

- why geological disposal? - and the national need for such a facility
- the scale and impacts of such a facility and associated infrastructure
- the timescales for development
- a description of the inventory of wastes and why a GDF is the only option
- how issues of safety and security will be tackled and managed on an on-going basis including the role of regulators and the significance of geology
- a clear statement on Government's commitment to voluntarism, the local right of withdrawal and the scope and nature of community benefits

Any new approach needs to clearly state how public and stakeholder engagement will be managed at a national and local level and the roles of specific bodies including potential Community Siting Partnerships. Building on the advice contained within the final report of the WC MRWS Partnership we would encourage Government to seek views on the role of a Community Siting Partnership in the siting process to test potential options around both scope/role and timing within the process and the potential for the process to recognise the need for the structure of a CSP or similar body to be determined by the host community working with local partners. We would also suggest that Government test through consultation the views on whether a CSP is actually required and consider that for the site selection process the local district or unitary council is identified as 'host authority' to manage the next stages of engaging with local stakeholders and the wider community.

Any new approach needs to ensure that adequate resource is placed on developing and implementing a communications strategy at both the national and local level and this should include all forms of communication including social media. Feedback from the wider community has suggested that despite the considerable efforts of the WC MRWS Partnership through its public and stakeholder engagement programmes there was limited understanding within local communities. Any future approach needs to recognise this and consider a more extensive programme of stakeholder and community engagement with the appropriate level of funding to carry out the task.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

The Government's stated policy on the long-term strategic solution for nuclear waste is for a geological disposal facility (GDF), and any future MRWS strategy should be clear from the outset that this is the only option under consideration and that a suitable site must be found.

The previous MRWS process was based on voluntarism, under which communities (local authorities) were encouraged to volunteer to participate in the site identification process. However, the decision to hand ownership of the initial stages of the process to a partnership of three differently-tiered local authorities (Cumbria county council and Allerdale and Copeland borough councils) also reduced the ability of the Government, the Nuclear Decommissioning Authority (NDA) and CoRWM to lead the process or to make the arguments in favour of geological disposal effectively; those bodies became seen as technical advisors rather than as advocates or promoters. The local authority partnership approach also required approval from all three councils to move to the next stage of the site selection process, effectively placing control over the whole issue into the hands of a small number of county councillors. The fact that both Copeland and Allerdale councils supported moving to the next stage, as did two-thirds of people in Copeland questioned in an Ipsos/Mori opinion survey, could not outweigh a decision taken remotely by a small number of county councillors (mainly from outside the Copeland area) only weeks before the county council elections.

The success of a future MRWS process will require the active involvement of potential host communities in developing the proposals, and the principles of participation and engagement will be critical. However, allowing local authorities to determine the outcome of a process which is designed to deliver a national Government policy may not be the most appropriate route. The Planning Act 2008 introduced a new planning process for Nationally Significant Infrastructure Projects (NSIPs) which requires the promoter/developer to carry out thorough pre-application and consultation and research, which is then considered by the Planning Inspectorate when determining whether to grant consent for the project. Local authorities, communities and environmental bodies, among others, are consultees rather than decision-makers, and Planning Performance Agreements (PPAs) can be put in place which require developers to support local authorities in considering the wider and longer-term implications of the proposed development. Copper Consultancy has many years of first-hand experience in this area and we believe that this process could be used to develop proposals for a geological disposal facility, with the NDA the obvious promoter/developer. The Government's National Policy Statement

(NPS) for Nuclear Power Generation (EN-6) identifies geological disposal as the solution for radioactive waste, but a further NPS specific to geological disposal may be required in order for a GDF to be classified as an NSIP for the purposes of planning legislation.

The issue of whether local geology was suitable for deep burial of nuclear waste in West Cumbria was a key issue during the previous process. Campaigners against the GDF cited reports by independent geologists who claimed it was not suitable, but the nature of the MRWS process (as stated above) meant it was impossible for NDA or DECC to provide a counter-argument; the NDA's detailed geological investigation could not take place until the next stage, but opponents claimed that moving to the next stage meant the creation of a GDF in West Cumbria was a "done deal", even though this was not the case. Again, treating the GDF project as an NSIP would allow the NDA to carry out geological investigation at varying levels of detail at different stages in the development of the proposals. Extensive consultation during and after each stage would allow detailed examination, challenge and review of the findings at each point in the process.

What do you think could be done to attract communities into the MRWS site selection process?

A community's willingness to participate in the site selection process will include a number of considerations, such as safety, health, inward investment, community benefit, employment, disturbance during planning, construction and operation, visual impact and others. The government should clearly define and communicate the economic and social benefits that would be enjoyed by the host community. However it is also vitally important to recognise that communities already living with the nuclear industry and above-ground storage of nuclear waste will have an informed view about its future; areas like West Cumbria and Kent, and others with existing nuclear facilities, for example, have many thousands of people employed in the nuclear industry and a much higher level of knowledge than most other parts of the United Kingdom. West Cumbria is also living day-to-day with the above-ground storage of nuclear waste already.

Communication will be key to getting people involved in any future MRWS strategy. Planning and construction of a GDF will take decades rather than years, so it will be important to engage with young people as a specific audience in potential host communities, as they will be the ones who will live and work with the future results. The extremely long-term nature of the project means there should also be a commitment to work with potential host communities on the development of long-term local/neighbourhood plans. A comprehensive package of economic, social and community benefits should be developed with each potential host community as part of the site selection process, with clear and unequivocal benefits and steps for the eventual host.

In making the case for the GDF, and to attract communities to participate, there should be a communications campaign which explains not only the benefits of a GDF but also the future implications of not having one, led by the Government, NDA and industry. It should be recognised that this would also lead to an opposing campaign, but this should be welcomed as part of a national debate on the issues and the future of UK energy and waste policy.

One of the keys to the success of a future MRWS process will be to engage with the "silent majority" and to ensure that the widest possible public opinion has been canvassed in the potential host community.

What information do you think would help communities engage with the MRWS site selection process?

To start with, potential host communities need to understand the “need case” for the GDF; where radioactive waste is stored at present, how much of it there is, how much there will be in future, what other options have been considered, and what solutions have been selected by other countries.

Communities will also want clarity on the MRWS process itself, how they will be involved and consulted, and how decisions will be made and implemented. This should include clarity on what would constitute “suitable” geology for a GDF, and exactly how the geology will be assessed to determine whether it is suitable or not.

There should also be clear information on how socio-economic impacts on potential host communities will be assessed, and how those communities will be involved in developing long-term plans for economic, social and community benefits.

It is also not just a question of “what information” would be helpful, but how that information is made available. People are more likely to understand the issues and engage in the debate if the need case and the consequences of not having a GDF are explained in “Plain English”. Technical jargon and bureaucratic language can be intimidating for people who do not have background knowledge, and they are less likely to participate. For instance, engaging well-known “science champions” to explain the issues and de-bunk myths, and using the web and social media channels to communicate with audiences, would encourage a wider discussion and an increased shared understanding, and there are many other examples.

From: REDACTEDREDACTEDREDACTEDREDACTEDREDACTED
Sent: 14 June 2013 12:58
To: radioactivewaste (DECC)
Subject: MRWS - Call for Evidence

With apologies for late response. Below please find CORE's comments.

Thanks,

REDACTEDREDACTEDREDACTED

Name	REDACTEDREDACTED
Organisation / Company	CORE [Cumbrians Opposed to a Radioactive Environment]
Organisation Size (no. of employees)	REDACTEDREDACTED
Organisation Type	REDACTEDREDACTEDREDACTED
Job Title	REDACTEDREDACTED
Department	
Address	REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTE
Telephone	REDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal

facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

With sincere apologies for late response which CORE makes on behalf of its UK and Overseas members and supporters.

That so few local authorities have been tempted to express an interest in participating in the MRWS process should send a clear message to Government that the prospect of hosting an international geological disposal facility is seen as a detriment (socially, economically and environmentally) that is to be avoided at all costs.

The 'No' vote by Cumbria County Council which, quite rightly, brought the West Cumbrian MRWS process to an end showed that a primary issue of contention was that what had been launched initially by Government as a means of solving the national problem of nuclear waste management had been turned into a local problem for West Cumbria alone – largely by courtesy of Copeland and Allerdale Borough Councils' well documented and long-standing subservience to the nuclear industry - the major problem voiced by respondents to the West Cumbria MRWS being that whilst a process involving volunteerism was acceptable, such volunteerism should be invited only when suitable geology had been first identified. In other words, the cart had been put before the horse.

A further major issue of contention was that despite a wealth of evidence showing the poor prospect of finding suitable geology in West Cumbria – and the earlier rejection by Public Inquiry into the NIREX plans for the Longlands Farm site at Gosforth – the West Cumbria MRWS process should have been run at all – let alone allowed to extend for a number of years before rejection.

The lesson to be learned by Government from the West Cumbrian experience is that, with any hope of securing belated interest on what has

become a largely discredited process from UK-wide local Authorities, sites with the best geological potential must first be identified – all areas of the UK being involved – and once identified, expressions of interest then – and only then - being canvassed from Authorities in those geologically selected areas. A failure to do this is likely to be a show-stopper for any form of future MRWS process.

Having said that, the Government will be aware that CORE has remained strongly opposed to the underground disposal of nuclear wastes – an opposition voiced against the original recommendations of CoRWM. Whilst the grounds for CORE’s opposition are well documented via Public Consultation responses and the submission of evidence to CoRWM and to Public Inquiry, they are here a matter for discussion for another day. Suffice it to say that, in its repeated opposition to the deep disposal of nuclear wastes, CORE has championed the alternative waste management/disposal option of long-term above ground storage of wastes at the site of origin. As a permanent solution this has fewer technical restrictions, hazards and uncertainties than those currently posed to current and future generations by deep geological disposal.

The obvious and immediate advantages of this option are:

- It adheres to the internationally accepted principle that nuclear wastes should be disposed of at, or close to, the site of origin of the waste – ie, for most part, the already licensed nuclear sites**
- The sites are therefore self-selecting and no volunteerism is required**
- It transfers the responsibility for producing/managing nuclear wastes back to the nuclear industry itself – where it rightly belongs - and away from the general public who may or may not have any involvement or interest whatsoever in the nuclear industry**
- The burden of hosting a waste disposal facility is shared by communities around those licensed sites who have already reaped the benefits (jobs, finance and local infrastructure) of the sites’ nuclear operations**
- It reduces to the barest minimum any future trans-UK transports of radioactive waste to a ‘one-off’ national disposal site.**

The choice of disposal facility type (deep, shallow or above ground) will be a matter for the operator of the individual licensed site, its local community and the suitability of the local geology and the industry’s regulators.

The Government will already have noted that as a result of the failure to date of its faulty MRWS process, CORE's option (for above ground storage) as outlined above is already in-force 'by default'. Given the view of CORE and others that the prospects of siting a deep disposal facility somewhere in the UK are, at best, light years away and, at worst, doomed to failure, the Government should now abandon any plans to continue its MRWS process (modified or not) for deep disposal in favour of concentrating its efforts and taxpayers money into the 'above-ground at site of origin option' which can be initiated on a permanent basis, without further delay and which may restore some semblance of public confidence that the Government will make the 'polluter pay' (in terms of restricting, minimising and managing its own wastes).

In respect of Intermediate Level Wastes (ILW) , which form the bulk of all materials currently destined for deep disposal, this option is already under discussion by the Nuclear Decommissioning Authority in relation to the storage of ILW at selected UK licensed sites via its May 2013 Credible Options Summary Paper on Optimising the number and location of interim Intermediate Level Waste (ILW) storage facilities on Magnox Limited and EDF Energy sites in England and Wales. This could be extended seamlessly to a permanent basis and to include spent fuel and High Level Wastes (in vitrified form) being similarly dealt with at their current locations.

I was disappointed by the rejection of the Nuclear Waste project by Cumbria. Disappointed but not surprised.

I prophesized this situation when the consultation began. Consultation - and I have years of experience of this - works well when it is conducted with those directly involved but always falls flat when outsiders get caught up and tub thumping begins driven by motives from outside the directly involved. Leadership by those with the right background and knowledge is required. In this case it is entirely missing.

That is the nub of HMG's problem. Leadership is totally missing.

All those involved must be required to learn what is at stake. Some items which should be before those involved are

- 1) The cost of Nuclear power compared with other forms of generation.
- 2) The amount of radioactivity generated by nuclear power compared with background from
 - a) local rock output - e.g. Aberdeen and Cornwall
 - b) That experienced by people living at height e.g. Denver, Lima, Mexico City and Johannesburg
 - c) That experienced by airline pilots and passengers.
 - d) The amount produced by in situ deposits
- 3) Statements of the effect of alternatives e.g. CO₂, Radiactive release from mining, dependence on imports of gas from unreliable sources and so on.
- 4) Likely (or possible) sources of energy in future -like Thorium or Fusion - and their timescale and possible problems and costs
- 5) The amount of land required by alternative sources of 'Renewable' energy and the competition for land from food production etc.

If those involved in the decision process are not equipped with this sort of background then they have little right to be heard. Any counsellors voting on the subject must have the right knowledge.

It will be seen that I am requiring a disciplined and knowledgeable approach from those consulted and little input from those remote. In particular I feel that professional pressure groups must always demonstrate professional knowledge before involvement.

REDACTEDREDACTED
CPRE North Yorkshire



Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

With regard to managing nuclear waste in Cumbria the **NO** decision made by the Council was based on true facts after long and careful consideration. The area covered by the vast coal field, which extends from St Bees Head to Aspatria, certainly was not suitable for an underground repository. We have a member of this Council who was employed by the National Coal Board as a qualified Mine Surveyor and has first hand knowledge of working conditions down many of the now disused mines. He states there are three problems within this area firstly water, second gas and third, but not least, faults. All of these were major problems in the coalfield.

With the Lake District National Park on the south side of the coalfield there are only limited areas remaining to give due consideration.

Speaking from a geological point of view we feel the best way forward is to find a location where the geological structure is mainly granite and build a repository there. This would most likely overcome the three problem areas outlined above.

Yours sincerely

Crosscanonby Parish Council



The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

1. The Cumbria Association of Local Councils (CALC) welcomes the opportunity to respond to the Government's Call for Evidence on the MRWS siting process. However, in the time available CALC has not had the opportunity to consult with its member councils. The views expressed below are therefore based on CALC's formal Position Statement of August 2012 (DECC has a copy).
2. CALC notes that the Government intends to issue a consultation paper in the autumn. We would ask the Government to provide a minimum 12 week consultation period to allow parish councils and others ample time to consider and respond to the consultation.
3. In CALC's view some revision to the MRWS site selection process would be essential if the Government wishes to encourage communities to participate in it's ongoing MRWS programme. Decision makers representing local communities are more likely to be attracted into the MRWS process if they are confident that safety, rather than technical or political expediency, will be the primary consideration and, also, if they believe that the benefits for their area are likely to clearly outweigh the costs. The Government's past approach has lacked adequate focus on these important considerations. Four matters in particular require Government attention and review.
4. Firstly, a project to build a Geological Disposal Facility will only have credibility in the minds of potentially interested communities if it is clear that geological and safety considerations are the primary drivers in the site selection process. An initial appraisal of the relative geological suitability of different parts of the country needs to be undertaken. CALC believes that the difficulties in undertaking this work have been overstated in the past. The cost of not undertaking such an appraisal and failing to generate credibility for the site selection process in the minds of the public at an early stage will be far greater than the cost of undertaking it. Unless a community is satisfied that there is a prospect of geological suitability, it is most unlikely to be willing to address the many other complex issues associated with a GDF project.

5. Secondly, communities are likely to be doubtful about a GDF site selection process unless they have been satisfied that the Government's policy approach is sound and they understand why alternatives have been rejected. In the past the Government has defended its policy of geological disposal and voluntarism in terms of 'the international consensus', but without adequately explaining why our diverse geological conditions, our population geography and our past nuclear industry experience makes international practice right for us in the UK. As CALC has suggested in the past a Strategic Environmental Assessment of MRWS would go some way towards meeting this requirement.
6. Thirdly, the Government needs to consider presenting the GDF project as an integral part of a wider economic/social development programme that is designed around the specific aspirations of a potentially interested area. The past approach of presenting a GDF as a single project with unspecified community benefits attached will not generate a sufficiently broad base of community interest to carry the project forward. A community needs to be able to see the genuine prospect of a programme of beneficial transformational change. Alongside this the Government needs to consider a more active role for itself in promoting interest in a GDF based development programme. There is no reason why such a proactive role by Government should undermine the principle of voluntarism providing the commitment of ultimately only working with a willing community remains paramount.
7. Fourthly, the Government should give greater attention to the perspectives and potential role of town and parish councils. The network of such local councils presents the Government with an important resource for the dissemination of information, addressing misunderstandings and gaining the trust of potential host communities. Any reviewed site selection process should explicitly recognise town and parish councils as statutory local authorities and place them appropriately within decision-making arrangements at all stages in the site selection process.
8. CALC hopes that the above points are of assistance to Government. We are willing to expand on our views if this would be helpful.

site selection aspects of the ongoing MRWS programme in this call for evidence, particularly from those who have been engaged in (or have been interested observers of) the MRWS process to date. The responses to this call for evidence will inform a consultation that will follow later in the year.

Background

8. Higher-activity radioactive wastes are produced as a result of the generation of electricity in nuclear power stations, from the associated production and processing of the nuclear fuel, from the use of radioactive materials in industry, medicine and research, and from military nuclear programmes.
9. As one of the pioneers of nuclear technology, the UK has accumulated a substantial legacy of higher activity radioactive materials. Some of it has already been processed and placed in safe and secure interim storage on nuclear sites. However, most will only become waste over the next century or so as existing facilities reach the end of their lifetime and are decommissioned and cleaned up safely and securely.
10. These higher-activity wastes can remain radioactive, and thus potentially harmful, for hundreds of thousands of years. Modern, safe and secure interim storage can contain all this material – but this method of storage requires on-going human intervention to monitor the material and to ensure that it does not pose any risk to human or environmental health. While the Government believes that safe and secure interim storage is an effective method of managing waste in the short to medium term, the Government is committed to delivering a permanent disposal solution.
11. In October 2006, following recommendations made by the independent Committee on Radioactive Waste Management, the Government announced its policy of geological disposal, preceded by safe and secure interim storage. The Government subsequently announced that it would pursue a policy of geological disposal with site selection on voluntarism and partnership. This remains Government policy.

Geological disposal

12. Geological disposal involves isolating radioactive waste in an engineered facility deep inside a suitable rock formation to ensure that no harmful quantities of radioactivity ever reach the surface environment. It is a multi-barrier approach, based on placing packaged wastes in engineered tunnels at a depth of between 200 and 1000m underground, protected from disruption by man-made or natural events.
13. Geological disposal is internationally recognised as the preferred approach for the long-term management of higher-activity radioactive waste. It provides a long-term, safe solution to radioactive waste management that does not depend on on-going human intervention.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Thank you for the opportunity to contribute to DECC's review of the Managing Radioactive Waste Safely (MRWS) policy that covers higher activity waste in the UK. The policy is important *nationally* to secure a long-term management solution for these hazardous materials, as well as *locally* given that the majority of the relevant wastes⁴ are already stored in Cumbria and are unlikely to leave in the short to medium term.

Context

Cumbria Chamber of Commerce represents 1,500 business members and engages actively with around 14,000 business contacts throughout the county.

The Chamber of Commerce was a pivotal member of the recent West Cumbria Managing Radioactive Waste Partnership. Our role was a neutral one – we were neither for nor against the development of a Geological Disposal Facility (GDF) – but rather, via our participation on the Partnership we ensured the needs of businesses across Cumbria were met regardless of the way forward.

Our decision as a Chamber was to take this neutral role, enabling us to engage in the discussion and because we represent members across the whole spectrum of Cumbrian businesses including those directly within the nuclear supply chain and those with very different priorities.

We believe that any decision is a citizen representative one through local authorities. We therefore seek to influence to make sure that any decisions are taken in full cognisance of the implications.

Specifically, the Chamber of Commerce raised the issue of potential impacts on the food and drink, tourism and land-based industries as critical to address before it

⁴ The majority of higher activity wastes are already in Cumbria at the Sellafield site. This is regardless of how it is calculated: by volume or by radioactivity.

was too late. Together with Cumbria Tourism, and with funding support from DECC, we led a joint research study to baseline the economic position of Cumbria as well as a study on the potential impacts on the brand of the Lake District and Cumbria. It was important to establish both of these as a 'baseline' before any decisions were taken about entering Stage 4 of the GDF site selection process, where potential site areas would start to be narrowed down to relatively focussed locations. We were grateful to other Partnership members for agreeing that this was an issue, and also to DECC for supporting the work and starting to address our concerns.

DECC's call for evidence asks three questions. Rather than address them each individually, below we outline some over-arching points. The points we make are relevant to any location in the UK (unless otherwise stated), not just Cumbria.

Mitigation of impacts

Many of the impacts of a GDF are obvious: dust, noise, traffic, worker accident risk, and potential public health and environmental implications during. There are some positive impacts such as the jobs arising from the facility, as well as other plants that may logically be co-located near the head-works of the repository. The presence of the facility is also likely to stimulate inward investment through the supply chain.

However, there are some negative impacts that may not be immediately obvious. The siting process will take around 15 years, during which there is a serious risk of the brand of the area being undermined by negative media coverage. This may occur innocently and as part of the general 'rough and tumble' of any large development, or be purposefully created by some players for whom it is convenient. Either way, the potential impact on the food and drink, tourism and land-based industries in Cumbria must not be underestimated. Particularly so for any business that relies on brand equity to leverage value for its products or services. This was seen around the Food-and-Mouth episode where companies took years to recover, or frankly never did.

As instigated by the Chamber and other partners in the Partnership, we believe any repository siting process should acknowledge this risk and manage it up front. Specifically, the following points should be put in place:

- A baseline study of economic indicators, providing a baseline against which future performance can be profiled
- A baseline study of peoples' perceptions of the brand, again providing a baseline
- Regular re-runs of these studies to assess whether there has been an impact, where that impact is being felt, and how large it is
- A proactive mitigation campaign that supports the three industries mentioned *before* any damage might be done

- Funding made available to support this work, as well as regular reviews of funding levels so support can increase (if impacts are larger than expected) or decrease (if impacts are lower)

The Chamber recognizes the importance of an evidence-based approach here. However, we also see the limitations to it if implemented in a very traditional way, as it will be impossible to establish with any certainty whether an impact is solely due to the conversation around the repository – in reality the picture of cause and effect will be more complex and hard to pin down. Clearly though impacts resulting from the conversation are as much a result of the process as any other impact. We would therefore invite DECC to be more flexible in how they approach 'evidencing' these impacts. We suspect that any political support that exists (in any area of the country) will wane if traditional models are pursued too rigidly.

Key message: Acknowledge risks to the brand of a volunteering area and fund work to research and mitigate potential impacts.

Community benefits

The Chamber notes the fundamental difference between impact mitigation and community benefits, as defined in Government's White Paper on MRWS. For clarity:

- *Impact Mitigation* = Funding to mitigate impacts where impacts are unavoidable. This could involve for example the costs of a brand protection strategy, or the costs of mitigating construction disruption by increased infrastructure provision. Importantly, impact mitigation aims to bring the situation back to where it was before the repository process started, not building value on top.
- *Community Benefit* = Additional benefits beyond the above two categories, in recognition of a local community fulfilling an essential service to the nation. This could include a variety of investments or funding streams. Importantly, the definition of community benefit must *exclude* the positive impacts that would be expected from the development anyway i.e. jobs, required infrastructure improvements like site access roads. Community benefits are additional.

We invite DECC to not confuse the two when talking to communities, including Cumbria. It is particularly important to the business community and other organisations with an economic generation remit that everyone maintains clarity about community benefits being 'additional'. This is something that the Partnership was usefully clear about, and that perhaps DECC could make clearer with other communities in England and Wales so they understand the potential 'positives' in play.

Key message: Be clear that community benefits are additional to impact mitigation and additional to the expected positive impacts of the development.

Timing of community benefits. The current expectation in both the White Paper and also the Partnership's work is that community benefits would only be available once the Right of Withdrawal is lost to community representatives. Whilst we understand the value for money argument here, it is inescapable that it is a 'big ask' for communities to go through 15 years of siting discussions with all the uncertainties associated, on the promise of an unspecified community benefit package at the end of it (after at least 3 changes of Government).

We recognize the Partnership's useful recommendation that DECC work with partners during a Stage 4 to define more clearly what a package might look like regarding governance arrangements, investments, scale and distribution (p178 of the Partnership's final report). Even this though would take about 5 years.

There is therefore an opportunity for DECC to show more leadership on benefits, without being overly-prescriptive. People want to know what is on offer. Firstly, people need to know what ballpark we're in regarding scale - is Government talking millions, or billions? Secondly, what kinds of investments might be possible? Some worked up relevant examples would be useful. Discussions and information on benefits to date have been too slow and too tentative.

We offer one possibility that illustrates our point. There is some international experience of ring-fenced funds. Once the community enters the siting process, Government openly sets aside a significant capital sum into a fund under community control. The community receives the interest on this sum and can spend it how it wishes (local governance arrangements permitting). If the community withdraws from the process, the capital sum is returned. If the facility is approved and construction starts, control of the capital sum is transferred to the community. Importantly, this mechanism is: simple, clear, committing, open, and manages risk to reasonable levels on all sides. It also spreads the timing of benefits over the length of the siting process so that the community sees the proof of Government's commitment to the project. We invite DECC to consider offering this kind of mechanism.

Key message: Be more forthcoming with community benefit packages. What scale is intended? What investment options are there? How might it work? Give more information to reset the balance of perceived costs and benefits.

Key message: Consider mechanisms that spread the timing of benefits across the whole siting process, such as a ring-fenced fund.

Integration

To date, the conversations about a repository and the possibility of building new

nuclear reactors have been kept separate. This does not make sense to the Chamber, and we would recommend they are integrated. At a national level the two are connected – new build cannot proceed without satisfactory arrangements for waste – so it is logical for the conversation to be seen as one holistic discussion and even potentially a package of investments and decisions.

Key message: Recognise the integration of geological disposal with other nuclear opportunities, and discuss them as one package not as separate entities.

Certainty

To flourish, businesses need certainty and clarity. The MRWS process does not provide this. There is a long period of uncertainty about whether the geology is adequate, whether a community will volunteer, what the impacts will be, what the opportunities are. All of this has the potential to undermine business confidence, and to miss opportunities. The speed of the process needs to be accelerated if at all possible, notwithstanding the need for community representatives to hold a veto on progress (which the Chamber does agree with).

Key message: Seek opportunities to accelerate the process, thus giving more certainty to businesses regarding investment.

Displacement

Potential displacement issues around the construction phase should be taken into account. One of the issues highlighted in construction of Thorpe is the displacement effect of the increased level of economic activity related to the construction phase on fledgling local tourism and other activities through issues around traffic congestion and the take up of accommodation by contractors and related over-pricing. This distorted to a degree the underlying economy and although there were positive aspects there were also negative ones. Issues such as transport infrastructure improvements need to be taken into account at an early stage and relevant improvements in place ahead of any other construction activities.

Key message: Ensure potential displacement issues around any construction phase are assessed and addressed prior to the start of construction.

Involvement of wide range of stakeholders

The Chamber has welcomed the close engagement in the West Cumbria MRWS Partnership. Whilst time-consuming, it gave us the valuable opportunity to

strongly represent the interests of Cumbrian businesses, with specific and tangible changes made as a result. We recommend that this opportunity is not lost in any improvements that might be made to DECC's policy. It is essential that, regardless of who the Decision-Making Body/ies are in the country, that DECC hear directly from wider representatives than only the DMBs. In the case of the Chamber, we are in regular touch with 14,000 Cumbrian businesses, which is a vital link to understanding and influencing business leaders in the area in a non-political way. Our analogous bodies around the country will offer similar benefits to any conversation that starts on MRWS in their area.

Key message: Continue to talk to a wide range of stakeholder organisations, not just the DMBs (wherever this may be in the country).

I hope these points are helpful. Do not hesitate to come back to me if you would like to discuss them.

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	
Organisation / Company	Cumbria County Council
Organisation Size (no. of employees)	
Organisation Type	REDACTEDREDACTED
Job Title	
Department	
Address	REDACTEDREDACTED  ACTEDRE DACTEDREDACTEDREDACTEDREDA CTEDREDACTEDREDACTEDREDACT EDREDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTEDRE
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

We have considered the above list of issues and offer the following comments for consideration. We would be pleased to discuss any and all of the following in more detail should any clarification be required.

Legislative Underpinning

Throughout our consideration of the decision about participation, Cumbria County Council remained concerned about the legal underpinning to both the right of withdrawal and community benefits. Before any new MRWS process, it would be prudent for DECC to consider how it can provide firmer guarantees to any future prospective host community that it will retain a right of withdrawal up to the point of GDF construction and that any agreed community benefits package will be delivered.

We suggest that one of the ways of achieving this could be through an amendment to the current Energy Bill before Parliament. Government may believe that there are other approaches that could also be explored.

Decision Making

Agreeing a process for decision making in Cumbria both for progression to Stage 4 of the MRWS process and beyond was difficult and, after much prompting, resulted in letters from Government setting out the so-called "green light" system. Despite this, there were still those that suggested, for example, that a district could proceed without a green light from the County Council. Although, DECC honoured the commitments given in the letters from, originally, Charles Hendry and more recently, Baroness Verma, we believe that DECC should consider ways of ensuring greater clarity and transparency in any future MRWS decision making process. We suggest that greater clarity therefore needs to be given to what is meant by a Right of Withdrawal and the detail of how the process would work, particularly in a 2-tier local government area.

Geology

Questions were raised during the MRWS process in West Cumbria about whether or not

geological screening nationally should take place first, so that Government efforts can be focussed on areas with greatest geological potential. Whilst both geological suitability and a volunteer community are necessary conditions for MRWS to progress, there may be a case for reviewing the approach taken by successful programmes overseas where identification of geology preceded identification of volunteer communities. Either way, lessons need to be learned from the West Cumbria experience of having two high profile geologists putting forward the view that the whole of West Cumbria was unsuitable and little or nothing coming back from DECC/NDA to explain why they were prepared to take the risk of moving on to the next stage. While it might be accurate to say that “we simply do not know enough to rule West Cumbria out”, it does not provide much reassurance to local residents when they compare it to a very articulate, well-argued opposing view.

We suggest that more could and should be done with regards to more active community engagement – using the undoubted expertise and knowledge across Government to pro-actively address and deal with the questions and concerns that communities will have through the process. Too often we experienced ‘meetings in public’ where experts attended to observe, rather than meetings with the public where expertise was utilised and shared.

A Plan B

It remains our view that DECC did not make it clear enough that the current policy of safe and secure interim storage would continue to be prioritised in parallel to the approach set out under the MRWS programme. Our assessment is that there was not clear enough proposals set out as to how the waste could be alternatively managed in the long-term, in the event that the establishment of a GDF was not successful. This resulted in the perception that there was no Plan B and that Government would push through with MRWS in West Cumbria come what may. Our concerns are both in relation to the long-term security of the waste, as well as the long-term economic prospects for Cumbria generally and West Cumbria in particular. At its simplest level, this is a matter of communication – you say “current strategy”, we say “Plan B” etc..., but such simple clarifications can be enormously helpful to the layman.

Design

Significant uncertainties exist about the ‘footprint’ of any future GDF and its environmental impact. DECC and NDA’s Radioactive Waste Management Directorate should seek to bring greater clarity to the inventory of wastes earmarked for disposal and the scope for waste retrieval (to alleviate public concern about the irrevocability of deep disposal).

Process

How DECC moves forward in the wake of the Cumbria decisions will be important for the maintenance of, or rebuilding of, public confidence in national policy towards long term management of higher activity wastes, given our clear understanding that the previous site selection process in West Cumbria has come to an end. The lessons from the Cumbrian experience must be learned and DECC needs to be innovative and comprehensive in its approach to this call for evidence and the forthcoming public consultation. The roles of CoRWM, the NDA and DECC need to be reviewed and clarified and it may be useful to establish a national forum of key stakeholders to provide ongoing advice to Government, at least while this policy review continues.

Utmost openness and transparency towards any review of MRWS policy is required. Convincing reassurance that adequate infrastructure exists for long term interim storage of wastes destined for geological disposal is also required.

REDACTEDREDACTED
REDACTED
Cumbria County Council
6 June 2013

Would you like your response to be kept confidential? If yes please give a reason

No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

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The Dalton Nuclear Institute hosts the UK's largest academic capability in nuclear R&D including decommissioning and disposal. Over 300 researchers are involved in projects across the nuclear fuel cycle, with a portfolio of over £100 M of research funding since 2005, and DNI hosts a range of specialised nuclear research facilities. In relation to geological disposal, the DNI hosts the highest density of researchers in the UK University sector in the area of decommissioning and waste management, has maintained a keen interest in the MRWS process, and welcomes this opportunity to feed into this Call for Evidence. Dalton Nuclear Institute fully supports the view that geological disposal implemented via a voluntarism process is the correct way to manage the UK's radioactive waste legacy.

With regards to the site selection process, voluntarism requires a host community to come forward prior to any further step. It is clear that in the recent MRWS process, the borough level community had enough confidence to proceed to desk-top study of site selection whilst county level remained unconvinced. Thus clarity on which community is the decision making body (county, borough) will help in site selection; it is also apparent that any disposal facility may be hosted several miles from the "entrance" within the host community and again, clarity on this aspect would help as it will assist in "choosing" the GDF location. In terms of geology, it is clear that a GDF may be hosted in several different geology types and interestingly Cumbria County Council did not feel confident that the west Cumbrian geology could host the GDF. This raises issues with the communication of science to the host community: this is crucial and having a good debate on the geology and indeed on aspects of the engineered barrier and how they behave with respect to radionuclide behaviour with a representative range of stakeholders will be crucial going forward. It is also important to consider and communicate the risks and costs of, for example, long term storage and bulk transport of higher level wastes across the UK. A healthy debate where advocates, independents, the opposition and the community have a voice is essential – social media as well as web and local meeting need to be engaged in the processes of communication and innovation here is important – what about open laboratories, Schools programmes etc. being part of the forward plan. Ultimately, the debate about "how safe is a GDF in my community" needs to be had across several levels and the process needs to have facilitation of this debate at its heart.

In terms of community engagement a clear value of, and commitment to, financial and other incentives before any community is expected to host is the ideal way to proceed. Again communication of this to the wider community and stakeholders will be essential. It is also worth reflecting that seven stages in the process may be too many; perhaps 2 / 3 key stages will be enough and will minimise the “lock-in” feeling that the community may hold.

In terms of information, it is clear that the UK lacks a forum for “the public” to engage with the nuclear fuel cycle – what used to be the Sellafield Visitors Centre may be a start but with the whole fuel cycle involved and with real funding and buy-in from “credible” scientific organisations (Royal Society, Science Museum...) so that people understand the processes and risks. Innovation here is important with the potential for satellite “meet the scientist/engineer and see them in the labs” and roaming exhibits being core to education of the relevant stakeholders. Opportunities for visitor feedback on what needs to be discussed and evolution of the displays etc. in response to this feedback central to any nuclear fuel cycle visitor centre. In addition, it is clear that communities must have pathways so that they become part of, and intrinsic to, delivery of the implementation process – a nuclear skills/innovation pathway for the community will be important. Finally, if the debate is to be healthy it is clear that incentives and training for stakeholders including “experts” needs to be part of the forward programme. In the last process, there was no clear pathway for members of the community, including academics to engage in wider debate. It is clear that a well thought through forum for these discussions with engagement of the relevant credible institutions should be important in any forward process.

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Or by post to: The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	Dounreay Stakeholder Group
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	
Would you like to be kept informed of developments with the MRWS programme?	Yes/No
Would you like your response to be kept confidential? If yes please give a reason	Yes/No



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The Dounreay Stakeholder Group is represented by over 25 organisations and therefore this response is one that is generally agreed by most organisations. However, there are some organisations, who may not agree entirely with this submission and therefore these organisations have been encouraged to provide their own response.

Process

1. The Managing Radioactive Waste Safely (MRWS) project as set out in the White Paper defines a number of stages that the developers, the UK Government and its agent the Nuclear Decommissioning Authority (NDA), and a participating community would follow in assessing the suitability of the community's area for a Geological Disposal Facility (GDF). Suitability in this context includes a whole spectrum of criteria including technical, financial and socio-economic issues.
2. The MRWS process is designed to assess and develop these issues in a methodical manner with continuous stakeholder involvement. Definitive decisions or conclusions on suitability of the various criteria are not expected or sought in the earlier stages, these being the building blocks for the later more detailed assessment stages.
3. This staged approach has not been fully appreciated by all participants in the failed MRWS initiative in Cumbria. Some participants have actively tried to force decisions or conclusions too early in the process to stall the initiative.

4. Any future MRWS initiative based on the current process as set out in the White Paper must include much stronger emphasis to communities and participants on the measured step by step process. Participants trying to force the pace of decision making or continually “jumping the gun” must be curtailed in an appropriate and transparent manner if there is to be a chance of the process moving forward rationally.

Geology

5. During the MRWS initiative in Cumbria the suitability of the geology became a major issue out of context with the assessment stages of the MRWS process. Objectors to the Expression of Interest in the MRWS process entered into by Cumbria County Council, Copeland Borough Council and Allerdale Borough Council used the possibility of the geology being unsuitable as a continual spoiling tactic to the staged assessment approach. Participants who were committed to the MRWS process did not profess that the geology was suitable but had faith that the MRWS staged assessment process would determine its suitability or not.
6. Discounting the lack of understanding in the staged assessment and decision making process, and the objectors' use of the supposed unsuitability of the geology to try to derail the MRWS process, it has to be accepted now that the suitability of the geology or its unsuitability is a key factor that has to be faced in a revised manner within the MRWS process. It is going to influence the conduct and direction of the early stages of the MRWS process and participants are unlikely to be willing to let the measured approach take its step by step way towards a final decision.
7. In its recommendation to the UK Government that a volunteerism approach should be employed for a siting process the Committee on Radioactive Waste Management (CoRWM) suggested communities should be invited to express an interest before any UK wide assessment of suitable geology was undertaken. This approach should be reconsidered as the initial screening work published by the British Geological Survey (BGS) could be expanded. This additional work could move the understanding of which areas in England and Wales were unsuitable for a GDF to an understanding of those areas where there would be a strong probability of identifying a suitable volume of rock for a GDF.
8. Such a revised approach could have the following benefits:
 - Nugatory work would be avoided if communities in areas of unsuitable geology expressed an interest
 - Encouragement of communities in areas of suitable geology would be more focussed
 - Communities in areas of unsuitable geology could drop the issue from their agendas

- Subjective claims and counter claims by groups and individuals concerning the suitability of the geology would be open to more objectivity

Proximity to Sellafield

9. Closely related to the requirement for suitable geology is the requirement to be able to transport the radioactive waste from Sellafield, where the majority is stored, to the GDF site. Nuclear transport operations over the last sixty years have demonstrated that there are no technical issues to prevent such transportation operations. The problems are social, political and financial.
10. Over the last few decades the UK has lost its ability to progress major infrastructure projects with a considered balance between risk, economic wellbeing and use of surface land. This manifests itself as self interest versus national requirement, prolonged planning inquiries and investment going outside the UK, to name but a few.
11. A transport operation for moving the large quantities of radioactive waste over many years from Sellafield to a GDF located even a few miles away would require a commitment by UK Government, local government and land owners to actually achieve it. Such a transport system could involve public and dedicated infrastructure and would require permissions from possibly a number of County Councils. Current experience would suggest that both popular and official objection would make the installation of the system either impossible or financially prohibitive.
12. The siting process should therefore acknowledge that the nearer suitable geology can be found to Sellafield the better. Communities in these areas should be given most encouragement and incentives.

Communities

13. The understanding of a "community" is a difficult concept in the context of the MRWS siting process. The process, ending with the completion of GDF construction, could take around 40 years. Taking "residents" as just one aspect of community the likelihood of them being the same homogenous group with the same views over the 40 years is inconceivable. People will be born and die, houses will be sold, built and demolished and political views will change. To say that a community wishes to express an interest or participate in the siting of a GDF really only means that the current residents, local associations and local government wish to do so. The constitution of the community could change, and consequently its views, in a short period of time.
14. In designing a revised siting process it should be considered whether it would be more appropriate to give more emphasis to the actual land and land ownership. After all, planning permissions are attached to land, not the owner or communities.

15. It is also far easier for government officials and the public (supporters, objectors NGOs etc.) to interact with a land owner, a person, government or company than an ill-defined community.

Information

16. It would be difficult to fault the organisation, production and distribution of information involved in the Cumbria MRWS initiative. The failure of that initiative could not reasonably be associated with the provision of information.
17. Likewise the provision and organisation of public events such as seminars, talks and walk in exhibitions was exemplary.
18. This level of effort and money spent on information and stakeholder involvement was applied in an area where there was a higher level of common knowledge of the nuclear industry and radioactive waste than most probably any other area in the UK except Caithness and North Sutherland in Scotland (where Dounreay is situated).
19. The lesson is that a reduction in this level of information to any other community would be counter productive and lead to criticisms of not telling the whole story.

Socio-Economics

20. Construction and operation of a GDF would bring substantial prosperity to an area. The level of inflow of money and provision of jobs is well documented. The understanding that a community needs to acquire is that of the level of risk involved and being able to balance this with the opportunities. The individual does this all the time in everyday life (e.g. driving a car) but as noted earlier as a country we have lost this objectivity.
21. A community has to acquire more confidence that the regulators, Office for Nuclear Regulation (ONR), Environment Agency (EA) etc. are actually doing their job properly and looking after the community's interests. It would help if these regulators took a more pro-active and visible role in the initial interactions with communities. Part of the success the Scandinavians are having with progress of their radioactive waste solutions is that their populations in general trust their regulators.

22. There was a visible lack of leadership from elected officials involved with the Cumbria MRWS initiative. The driving force was the contractor engaged by the Cumbria Partnership and if it had not been for the dynamism and professionalism of this contractor then the process would have faltered well before it did. If a community is to be swayed by the idea of prosperity for insignificant risk then elected officials have to be positively proposing the participation and seen to be leading and committed to the process. This might be easier in conjunction with land owners as mentioned earlier.
23. All of this most probably points to a much greater direct dialogue between UK Government and local government, land owners and communities rather than delegating it to NDA and contractors.

Government owned land

24. A possible way forward for siting a GDF would be to identify land that is owned by the UK Government, that could access suitable geology and that was very near to Sellafield. The technical issues to be resolved would be no different from any other location but the land ownership and community issues, including sustainable continuity would be much simplified.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

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- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

This submission is from Eden Nuclear and Environment Ltd. (Eden NE). To provide background, it is noted that the principal author, REDACTED, is:

- currently a member of REDACTEDREDACTEDREDACTEDREDACTED;

- a former manager of the REDACTEDREDACTEDREDACTEDREDACTEDREDACTED and a contributor to the development of REDACTEDREDACTEDREDACTEDREDACTED

- a

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Eden NE has many UK and overseas clients engaged in radioactive waste management and disposal. Noting these interests, it should be clear that all the views expressed herein are solely the views of Eden NE and not those of any other organisation.

We consider that the following developments are appropriate:

1. In our view, it is strongly in the national interest for a geological repository for radioactive waste to be developed from both the point of view of environmental protection and controlling the cost of the management of the UK's nuclear liabilities.

A key observation is that the environmental risks and hazards associated with storing waste on operating sites are higher than those associated with deep disposal. Surface stores are vulnerable to accidents, terrorism, and a potential future lack of sufficient resources for adequate maintenance. Once wastes are emplaced and the repository sealed, it would not be similarly vulnerable. It is difficult to see how large doses or widespread contamination would occur from deep disposal at a satisfactory site with a well-established safety case, apart from inadvertent human intrusion following the loss of records (which must be assumed as a basis for any repository safety case). If human intrusion into abandoned surface stores were to be considered, this would result in consequences that would be unacceptably high, far higher than could arise in the case of a geological repository.

As CoRWM noted in their 2006 report, the solution should be robust interim storage followed by disposal. If the period of interim storage is too long or uncertain, this results in additional cost as wastes must be packaged for an indeterminate period of interim storage and stores must be constructed and maintained. Delay also passes the responsibility for implementing a solution to the wastes created by current generations to future generations. Discounting of costs may suggest that delayed solutions are favoured, but if discounted costs were to be a

basis for decision making, a satisfactory environmental solution may never be achieved.

Given the importance of a deep repository, it is important that the process is taken forward in a dynamic way. The process should not be designed for failure in terms of creating too many hurdles or opportunities to fail. At the same time, the process should be designed, in accordance with government policy, so that agreement with and the confidence of the local community are obtained. One step that might reduce the chance of failure is to identify a single organisation whose agreement is sought (rather than seeking agreement at two tiers, as in Cumbria).

2. A more definite approach should be taken to specifying and guaranteeing a benefits package for the local community. This was identified by Cumbria County Council as one of the reasons for not proceeding with MRWS Stage 4. The costs of such a benefits package may be small compared to the long-term savings that would result from the availability of a repository and consequent more effective management of the UK's nuclear liabilities.
3. Government policy is that geological disposal is the way that higher activity radioactivity waste will be managed in the long term. This policy needs more effective advocacy. In part, this should be in general terms - i.e. geological disposal provides for better environmental protection than indefinite interim storage. Consideration should also be given to arguments around the potential for a geological disposal facility within any siting area. The views of those who thought that deep disposal in Cumbria was not an appropriate solution were prominent in the recent process, whereas there was relatively little prominence to contrary views. As part of any new framework, the government should ensure that individuals or organisations, with appropriate technical competencies, are given an appropriate remit to speak proactively on proposals and alternatives. Such an objective could be promoted by co-operation between the Government and NDA's Radioactive Waste Management Directorate. Government should recognise that any project that involves a local community taking responsibility for the nation's problems will require more extensive engagement than was the case in Cumbria.
4. More effort should be devoted to ensuring that appropriate independent advice is available to any community that might volunteer. This needs to be authoritative in terms of a technical understanding of the issues (e.g. of repository safety cases) and to be from organisations that are trusted. Such organisations could include the regulators, learned societies or government advisory committees such as CoRWM. It is suggested that ways should be sought to involve representatives of such organisations more extensively in any future discussions with a siting partnership. It is emphasised that discussions need to be transparent, open and even-handed to build trust and understanding.
5. The present approach involving volunteering and screening with some very coarse unsuitability criteria is not a good approach, noting that we think a good geological environment is an important component of a good safety case and achieving confidence in that safety case. The current approach could lead to investigations proceeding in part of the country that offers relatively little promise. The ultimate chance of success would increase if areas of the country could be selected for investigation prior to any region coming forward, taking account of a full range of issues (technical and social). The local community and local politicians could then be approached. Government and the NDA should take a more proactive lead in identifying the most suitable areas and engaging with community representatives. Technical aspects of the process would require some thought in terms of appropriate selection

criteria that could cover a range of acceptable sites in different geological environments. Among such sites would certainly be the clays in SE England for which, in our view, it would be easier to demonstrate a safety case than might be the case for fractured basement rocks.

6. It is important that progress is demonstrated and confidence is built that geological disposal can be safely achieved. It may be appropriate, therefore, to consider disposal solutions that may apply only to certain components of the inventory. For example, modular disposal solutions could be considered for inventories from particular sites or a repository in a particular host rock might only be suitable for the disposal of a relatively small inventory. Active consideration could be given to the possibility of such limited solutions as a confidence building measure that might lead to the development of a larger facility (presumably at another site). The Norwegian tunnel repository for NORM (Stangeneset LSA scale repository) is an example of a limited-inventory repository. It is also worth noting that there is an existing precedent for deep geological disposal in the UK in terms of the Minosus project for the disposal of hazardous wastes.

7. At present there is a fairly rigid division within the MRWS process into Stage 4 with desk-based assessments and Stage 5 during which surface-based investigations proceed. This division is too rigid given that desk based assessments may have to proceed with very little data if those data do not already exist. There should be sufficient flexibility in our view for RWMD to design an appropriate programme of work, which should include early surface-based investigations if these are part of an optimal programme.

8. Aspects of the current process were quite adversarial. This may sometimes be inevitable. However, consideration could be given to approaches that would allow a more even-handed and co-operative approach to evaluating technical information. This might include a technical role in any investigations or data analysis for appropriate experts drawn from different organisations and backgrounds. This would need to be organised effectively so that it would work in practice.



The Managing Radioactive Waste Safely Team
Department of Energy and Climate Change
55 Whitehall
London
SW1A 2EY

10 June 2013

Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include nuclear, coal and gas-fired electricity generation, renewables, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including both residential and business users.

EDF Energy's safe and secure operation of its eight existing nuclear power stations at sites across the country makes it the UK's largest generator of low carbon electricity. Spent nuclear fuel from these power stations is currently stored safely and securely at power station sites or at Sellafield in Cumbria. EDF Energy has published plans to build four new nuclear plants, subject to the right investment framework. These new plants could generate enough low carbon electricity for about 40% of Britain's homes.

EDF Energy is supportive of the principles of volunteerism and partnership, as laid out in the Managing Radioactive Waste Safely White Paper in 2008, as the first preference for selecting sites. We believe that the key to success of the process will come from enabling any community involved to engage from the outset in a clear and impartial discussion on the likely benefits and impacts of hosting a national geological disposal facility (GDF).

While it is important that the Government continues to make progress on the implementation of radioactive waste disposal policy, the existing radioactive waste inventory and future arisings from existing nuclear facilities can continue to be safely managed. Providing disposal facilities for higher activity radioactive waste is the long-term objective of the Managing Radioactive Waste Safely programme and the Government has concluded that it is satisfied that effective arrangements exist, or will exist, to dispose of the waste from any new nuclear power stations that are granted planning consent.

In the case of our proposed project at Hinkley Point C, interim storage facilities for intermediate level waste and spent fuel arisings over the lifetime of the power station will be provided, and disposal facilities will therefore not be required for many years.



Our detailed responses are set out in the attachment to this letter. Should you wish to discuss any of the issues raised in our response or have any queries, please contact

I confirm that this letter and its attachment may be published on DECC's website.

Yours sincerely,

Attachment

Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

EDF Energy's response to your questions

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

1. EDF Energy is supportive of the principles of volunteerism and partnership, as laid out in the Managing Radioactive Waste Safely (MRWS) White Paper in 2008, as the first preference for identifying sites. We believe that the key to success of the process is to enable any community involved to engage in a clear and impartial discussion on the likely benefits and impacts of hosting a national geological disposal facility (GDF).
2. It is essential that decision-making processes are clearly set out, and that those potentially affected by proposals for siting a geological disposal facility are given the opportunity to participate fully. The definition of "community", and the role of elected representatives needs to be clear.
3. The process in West Cumbria was halted at a stage long before any decision was needed by the community on whether to accept construction of a GDF. Indeed the process had not even reached the point where the studies to identify what areas might or might not be suitable had been performed. We suggest that in any future process the aim should be so far as possible to ensure that local participation is enabled to proceed to a point where the level of information quite reasonably sought by local people on key issues can be provided before crucial decisions need to be taken on whether or not to proceed further in the process.
4. The West Cumbria MRWS Partnership made considerable efforts to provide information on the process in an unbiased and objective way. It was not the role of the Partnership to act as a proponent for the siting of a GDF in the area, and in practice it was not clear that any one organisation represented the "promoter". We believe it is essential to have someone who can speak authoritatively on behalf of the organisation that is promoting the case. Without this, the community may well receive an unbalanced picture of arguments for and against participation.
5. Our own recent experience of planning major projects has shown that it is important to provide information on proposals at an early stage, and to take account of local views in developing those proposals. We have found it helpful to

establish a local office, open to the public, as a point of access for information, and to have an active programme of engagement with local residents, local authorities (at parish, district and county level) and special interest groups. A key part of this engagement programme is to explain the potential benefits of the project, and also to act as a conduit for feedback from members of the local community.

6. The GDF project is unusual in that the question for the community both before and during the first several years of its engagement is not whether a GDF should be constructed at a particular location but whether or not to participate (or continue to participate) in the process to investigate the possibility of this being acceptable. We suggest that the Government considers identifying someone who is clearly responsible for communicating the arguments for participation (or continued participation) in any future process.
7. From our own experience of major projects, this person would need to work closely with the local community from the outset, ideally by establishing a local office providing ready access, so as to ensure that the issues of most local importance were understood and wherever possible resolved and then communicated to stakeholders.
8. We also believe that the role of independent expert bodies in providing evidence and advice to the local community is crucial, and more could be done to ensure that authoritative expert bodies provide such information. The process in West Cumbria had not reached the stage where a specific proposal was being considered. This meant that the importance of the UK's regulatory framework of consenting, licensing and permitting (that would ultimately all need to be satisfied before any GDF could proceed) was not really visible to local stakeholders. We suggest that in any future process the vital role that these regulatory controls would play in scrutinising the proposals for any GDF was need to be given more prominence from the beginning.

What do you think could be done to attract communities into the MRWS site selection process?

9. Communities will only be attracted into the MRWS site selection process if the balance of benefits and risks is clear. In order to allow informed and balanced decision-making, it is essential that the Government and the Nuclear Decommissioning Authority (NDA) can give a clear picture of the scale – both in terms of geographical extent and in terms of the amount - of investment that would be likely to be realised within the host community. This must of course be related to an assessment of the impacts on the local community in both the short and long term of hosting a GDF.

What information do you think would help communities engage with the MRWS site selection process?

10. The West Cumbria MRWS Partnership undertook extensive work on behalf of a wide range of local stakeholder groups, and produced a detailed report based on independent research and expert reviews. This report, published in August 2012, provides important evidence that the Government and the NDA should take into account when considering next steps. In particular, the Executive Summary of this report highlighted three of the overarching issues which set the context for the decision on participation. These issues were: the need to reduce the range of uncertainties; the importance of building trust among stakeholders and the public; and to consider further when a Strategic Environmental Assessment should be carried out. We agree that these are key issues for effective engagement.
11. As noted above, access to relevant evidence and impartial expert advice for the local community is essential to inform public debate. There are a number of bodies that can fulfil this role and need to contribute actively to this process, including British Geological Survey, Health Protection Agency, Office for Nuclear Regulation and the Environment Agency.
12. The NDA need to play a leading role in presenting the case for development of a GDF, and in providing accessible information about the technology of GDF construction and operation, including information on the likely impacts (both positive and negative) on the local environment and those that live there. NDA should also draw on experience from elsewhere (both in the UK and overseas) and work to build confidence in their expertise and ability to deliver a practical solution.

EDF Energy
June 2013

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	Ennerdale and Kinniside Parish Council
Organisation Size (no. of employees)	REDACTED
Organisation Type	REDACTEDREDACTEDREDACTEDRE
Job Title	REDACTEDREDACTED
Department	
Address	REDACTEDREDACTEDREDACTEDRE DACTEDREDACTEDREDACTEDREDA CTEDREDACTEDREDACTEDREDACT EDREDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTEDRE
Telephone	REDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Recommendation 1

Any future MRWS process needs to be chaired and managed by a person independent, of any government body, and with the power to apply judicial standards for witness evidence from organisations contributing to the MRWS Partnership activities.

Recommendation 2

Any future MRWS process needs to ensure that potential host communities have separate representation from town and parish councils and that these town and parish councils are independently responsible for assessing and reflecting the views of potential host communities. The DMB, within the MRWS process, should have no influence on, or role in assessing, the potential host communities' views or in representing those views.

Recommendation 3

In order to provide confidence to local people, the MRWS Right of Withdrawal should be extended to the host community and not solely vested with the DMBs. And this Right of Withdrawal is enshrined in statute.

Recommendation 4

Any future MRWS Partnership must ensure that the process and decisions are truly independent of the DMBs. DMB representation on any future MRWS Partnership needs to be that of observer status only, similar to the status afforded to NDA and DECC, in the West Cumbrian MRWS Partnership.

Recommendation 5

Before any consideration is given to continuing the MRWS process, there needs to be a UK wide search for the most suitable geology for a GDF. This work has already partly been carried out so the cost of this

search would not be prohibitive.

Recommendation 6)

National Parks, SSSIs and SACs, together with other landscapes of future cultural value to the nation, should be treated as excluded areas from the outset. Only after demonstrating that all the previously identified geologically ideal locations, are in fact unsuitable for a GDF, should consideration be given to the excluded areas.

Recommendation 7

Any future MRWS process needs to build in fiscal probity as mandatory requirement on the MRWS Partnership and to provide independent financial oversight of the same, in order to prevent wasteful use of public monies.

- 1) Throughout the MRWS process in West Cumbria, there have been repeated instances where information is omitted from data provided by NDA and DMBs. Such omissions are misleading and convey a false impression of the impacts a GDF would have on the local community. The damaging impact of the Stage 5 exploratory workings, on the Ennerdale valley, were only admitted (by NDA) in the last weeks leading up to the three DMBs decisions on proceeding to Stage 4. This admission was after the Stage 3 consultation had concluded.
- 2) The MRWS White Paper sought to provide flexibility in defining a 'host community'. Whilst flexibility is essential, such flexibility is open to abuse; as was the case in the MRWS process in West Cumbria. The MRWS Partnership treated the borough, as a whole, as the 'host community; such that the views of a true 'host community' are subsumed into and combined with the views of the wider community. This is at the heart of the Partnership's failure to implement and deliver voluntarism.

The DMBs sought to represent the views of the potential host communities. It was only through the efforts of numerous parish and town councils, working with Cumbria Association of Local Councils (CALC), did the real views of the potential host communities get voiced.

One example of the MRWS process, as managed by the DMBs, failing to reflect the views of one potential host community, can be seen in the parish of Ennerdale and Kinniside. The MRWS Partnership claimed that the Copeland communities were overwhelmingly in favour of proceeding to Stage 4. However when an independent parish wide referendum was held, nearly 95% of the electorate voted not to proceed to Stage 4. The views of this community were demonstrably misrepresented by the MRWS Partnership.

- 3) The MRWS Public Consultation document page 93, paragraph e) states "In the event of the partnership concluding that the omission of a potential host community from the PSA (potential site area) would create insurmountable problems for the siting process, then it could recommend the inclusion of the community concerned if this was supported by a full justification and

explanation.

When asked if a DMB would override the wishes of an unwilling host community, the Chairman of the MRWS Partnership replied "Yes, we do at this point believe that there are limited circumstances where a borough or county council could ultimately override the wishes of a potential host community (just like in the traditional planning process)."

The voluntarism of potential host communities cannot be safeguarded by DMBs in West Cumbria. The host communities need a right of withdrawal, that in exercised independently of the DMBs.

- 4) The structure of the MRWS Partnership was fundamentally flawed and lacked even the most basic standards for independence. Often the DMB Council Leader would chair MRWS Partnership, strongly influencing the MRWS Partnership advice and recommendations. When the DMBs sat to consider the same MRWS advice and recommendations, they did so under the chairmanship of the same person, who had chaired the formulation of the MRWS advice and recommendations. This in itself is sufficient to undermine the credibility of the MRWS Partnership.
- 5) DECC's 'Call for Evidence' states: "The Government remains firmly committed to geological disposal as the right policy for the long-term safe and secure management of higher-activity radioactive waste." However the MRWS White Paper fails to address the issue of seeking the most suitable geology first. In fact it does not even give any consideration to finding the most geologically suitable areas, before engaging with communities. The reference in DECC's 'Call for Evidence' reads: "Evidence from abroad shows that this approach can work, with similar waste disposal programmes based on these key principles making good progress in countries like Canada, Finland, France and Sweden." This also fails to record that in each of these countries, the most suitable geology was identified before seeking volunteer communities. In each country, volunteer communities were found. However, the UK is alone in seeking the volunteer community before identifying where the most suitable geological areas for a GDF are.
- 6) The MRWS Partnership excluded some locations from the search for a GDF, based on the BGS report. What the MRWS Partnership totally failed to consider was the need to exclude locations based on other grounds than future potential mineral resources. Once it became publically known that the MRWS Partnership intended to consider siting a GDF within the Lake District national park, there was a public outcry from both local people and from the public at large. Not only local people but the wider national community are not willing to volunteer the Lake District national park into hosting a GDF.
- 7) Several independent geologists stated that the rock volumes within the Western Lake District were unsuitable in the search for a GDF. Even the MRWS Partnership's own consultant geologist stated, that the poor prospect of finding suitable geology in the Western Lake District, would render Cumbria unsuitable for commercial exploration.

Despite this information being made available to Copeland Borough Council (CBC) and that to proceed to Stage 4 would most likely lead to a massive waste of public money, CBC decided to vote to proceed to Stage 4. In effect, Copeland Borough Council knowingly made a decision that

would likely lead to a huge waste of public money.

This same information on the geology of West Cumbria was also know to NDA and DECC. Consequently, both DMBs and Central Government had shown a lack of financial probity in the use of public money. This leaves open to question which body should manage the finances for any future search for a GDF.

RESPONSE TO DEPARTMENT OF ENERGY & CLIMATE CHANGE

Managing Radioactive Waste Safely: Call for Evidence on the Siting Process for a Geological Disposal Facility

Summary

It is Government policy that the long-term solution for the management of higher-activity radioactive wastes is geological disposal. Reliance on interim surface storage is not sustainable in the longer term. The Environment Agency is keen that progress is made in the development and delivery of geological disposal and so welcomes this Call for Evidence.

The Environment Agency believes that the current Managing Radioactive Waste Safely (MRWS) siting process could be improved. In particular we believe:

- the MRWS process should seek to maintain a national dialogue, as well as local dialogues, on the need for progress to be made with securing a solution to geological disposal, and the broader implications for waste storage and transport.
- organisations involved in the siting process should ensure that information which is relevant to the development of a geological disposal facility is made openly available and used, irrespective of the particular 'stage' of the process. For example, information on geological setting, screening on current land-use, etc.

1.0 INTRODUCTION

1.1 Together with the Office for Nuclear Regulation, the Environment Agency will be responsible for regulating any future geological disposal facility for radioactive waste in England. We will not permit any geological disposal of radioactive waste unless we are satisfied that it will ensure the proper protection of people and the environment, now and in the future, and meet regulatory standards. More generally, the Environment Agency is responsible for the regulation of radioactive waste disposal from nuclear and non-nuclear sites.

1.2 The Environment Agency is also a statutory consultee for the Strategic Environmental Assessment and the Environmental Impact Assessments that will be required in support of any planning permission for such a development.

2.0 THE ROLE OF THE ENVIRONMENT AGENCY

2.1 Solid radioactive waste can be divided into two broad types, according to the hazard and risk it poses, and hence the most appropriate management and disposal route:

- Low-level radioactive waste is generated by the nuclear industry as well as small users of radioactive substances, such as hospitals and universities. It is generally much less hazardous than Higher Activity Waste and is usually suitable for immediate disposal in near-surface facilities.
- Higher Activity Waste is generated by the nuclear industry and comprises high level waste, intermediate level waste and certain low-level waste. Higher Activity Waste is not suitable for disposal in near-surface facilities.

2.2 Government policy for the long-term management of Higher Activity Waste is for geological disposal. We support geological disposal as the strategic way forward. No Higher Activity Waste disposal facility exists in the UK, despite several decades of effort to secure a facility. Current arrangements rely on interim storage of the waste at nuclear sites, requiring ongoing management and investment. Some Higher Activity Waste will remain hazardous for several hundreds of thousands of years and, unless disposed of, presents a significant potential risk to people and the environment, placing a burden on future generations for continued safe management.

2.3 In 2008 the Government published a White Paper setting out an approach to implementing geological disposal through a process reliant upon community engagement and volunteerism. Government has stated that once a site has been identified, the Nuclear Decommissioning Authority will be the organisation responsible for developing a geological disposal facility.

2.4 The process to date has involved the Environment Agency helping to clarify for local authorities and the public its role in the regulation of the development of a geological facility. This role was supported by the Department of Energy and Climate Change (DECC) and the Environment Agency recognised as independent and capable of strong regulation, vital to any siting process.

2.5 Having a community offer to host a geological disposal facility does not guarantee that such a development will take place in that location. The disposal facility would require an environmental permit; obtaining such a permit would depend on there being a suitable and satisfactory environmental safety case. Also, a community may choose to accept some but not all Higher Activity Waste, leaving open the possibility that other facilities may be needed.

2.6 The Environment Agency provides advice to help ensure that all the relevant environmental issues associated with a potential development are taken into account at an early stage to ensure that a geological disposal facility is sustainable. The Environment Agency has existing contacts and relationships with communities and organisations at local, regional and national levels. These could be used to facilitate the interactions and dialogue over the development of a geological disposal facility.

3.0 ENVIRONMENT AGENCY RESPONSE TO CONSULTATION QUESTIONS

3.1 The following provides some further observations on the MRWS siting process. These are offered on the basis of our involvement in the process to-date.

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

3.2 We believe the roles of organisations such as DECC, the Nuclear Decommissioning Authority's Radioactive Waste Management Directorate and the Committee on Radioactive Waste Management should be clearly identified, delineated, defined and communicated to differentiate their responsibilities, particularly those which are advisory in nature and those which have decision-making powers.

3.3 Further clarity on the role of the regulators during the early stages of site selection and in advance of the formal regulation could also usefully be made. We believe consideration should be given to the part Government can play in ensuring that the independence of the regulators is made more visible.

3.4 Organisations involved in the siting process should ensure that information which is relevant to the development of a geological disposal facility is made available and used, irrespective of the particular 'stage' of the process. For example, information on geological setting, screening on current land-use, etc.

3.5 We believe the Nuclear Decommissioning Authority should continue to develop the Radioactive Waste Management Directorate into a separate organisation, capable of becoming a site licensee company, thereby demonstrating a strong commitment to establishing an implementation organisation with sound footings. It will also help improve its visibility.

What do you think could be done to attract communities into the MRWS site selection process?

3.6 We believe consideration should be given to how some of the inherent uncertainties identified by the West Cumbria MRWS Partnership can be bounded or reduced. For example, the nature and quantity of the waste disposal inventory, community benefits, impacts during characterisation and facility development, early consideration of geological suitability, community veto and the application of the local or centralised planning system.

3.7 To help facilitate engagement, a 'partnering agreement' could be developed between any local authority interested in discussing potential suitability of their areas and the lead organisation for siting (i.e. the Radioactive Waste Management Directorate of the Nuclear Decommissioning Authority). This could transparently lay out the responsibilities and roles of all organisations involved and the scope/limits of the discussions/investigations agreed to

during the existence of the partnership as well as issues like decision points, process for withdrawal or continuation.

What information do you think would help communities engage with the MRWS site selection process?

- 3.8 We believe consideration should be given to how best to initiate early discussions and information exchanges with local authorities. A proactive approach with local authorities may be useful, as well as a more general discussion on the process with other groups, for example learned societies.
- 3.9 Social media and digital platforms provide both a significant opportunity and challenge to communications and engagement during the early stages of site selection when significant uncertainties and unfamiliarity (with MRWS) are likely to exist. Consideration should be made as to how they can be used more actively to support engagement, particularly in circumstances where opposition groups may actively be using such approaches.

Further information

Further information or background to this response can be obtained from

June 2013

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Improvements:

- 1. International practice for site selection processes are based on two fundamentals:**
 - a. *Led by an independent panel* representing a broad range of key stakeholders. For example, in the case of MRWS, the NDA's role was not seen, nor did they act, in a way to engender trust that the process was objective, open and genuinely inclusive in terms of participation. The principle local authorities cabinet/executive structures meant that their legitimacy to represent all the people in the host/affected communities was not achievable. In the context of localism, Town and Parish Councils/meetings should have been directly represented; and**
 - b. Geological suitability, overseen by the independent panel, should be investigated *before* seeking voluntary participation by potential host and affected communities.**
- 2. DECC consultation should take place on the stages in the process, the independent panel and clear governance arrangements, and an updated White Paper debated and approved by Parliament. Some legal requirements may be required stemming from the consultation, such as the right of withdrawal by communities, that would need legislation.**

Attract communities:

- 1. The absence of the above were the key failings in MRWS, however additionally, the community benefits package became a significant material consideration in advance of geological suitability being independently proven. This again undermined trust and generated a perception that the Government's own overriding objectives of safety and environmental protection were being compromised. Any community benefits package should follow geological suitability and not lead site selection. A relevant factor was also the fact that the local authority budgets are struggling to cope with service cuts and, therefore, their own neutrality of decision making was compromised. This again reinforces the need for an independent panel, covered above.**

Information:

- 1. The consultants commissioned by MRWS did the best they could under the circumstances. What failed in the whole process was *communications*. This partly stemmed from the MRWS Partnership's ambiguous relationship with the DMBs (Decision Making Bodies). Creating an independent panel both reporting to Government and overseeing the process would help simplify communications. Fundamentally, two-way communications, collective learning and understanding and time to build trust was absent. The DMB process deadlines should be flexible around addressing outstanding information uncertainties in the communications process with host and affected communities. Voluntarism needs all relevant parties, overseen by the independent panel, to be in agreement that information requirement or issue x,y,z has been dealt with before moving on to the next stage. Citizen juries should be established to inform decisions of this nature where often complex information can only be conveyed so far within written consultation documentation. A basic tenant of building peoples' trust is *participation* and *ownership* in any decision-making process, and I'm afraid to say that MRWS failed in this regard.**

Would you like your response to be kept confidential? If yes please give a reason

No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

One of the main issues that surfaced during the latter stages of the process in Cumbria was the suitability or otherwise of the geology in the area. This should not have been so important given the results of the BGS survey, so why was it? In our opinion the question of identifying potentially suitable geology should have been addressed earlier in the process, in keeping with much overseas experience. If a high-level screening process was carried out prior to the call for communities to come forward, the issue should have a much lower profile. However, in order to do this successfully, it will be necessary to explain the screening criteria in a clearer way, and to involve relevant stakeholders in their application. Screening criteria should not, of course, be solely geology based, and should include a range of socio-economic factors as well, again in keeping with international experience and guidance, as well as on the required waste transport distances, which depend on where the waste is currently situated. The balance between optimum geology and optimum location should be more clearly recognised. The criteria should be based on internationally agreed criteria as recommended by the International Atomic Energy Agency.

We would therefore suggest the following:

- Conduct open discussion of the proposed siting criteria (both geological and socio-economic) through a series of regional fora across England, Wales and Northern Ireland, with details of what a geological disposal facility (GDF) would look like and what the surface requirements would be in terms of land area.
- Involve all interested scientific organisations in these discussions (British Geological Survey, Geological Society etc.), as well as representatives of local authorities (Local Government Association, NuLeAF etc.), non-governmental organisations (NGOs), and nature conservation bodies.
- Report the outcome of these deliberations in a subsequent series of public meetings around England, Wales and Northern Ireland, to explain them in clear terms.

- Following development of these criteria, conduct an open and transparent process to identify those areas of the country (England, Wales and Northern Ireland) where potentially suitable sites may exist. Then, and only then, invite communities in these areas to come forward to explore the possibility of becoming involved. At this stage communities around existing nuclear sites could also be approached directly (subject to potential suitability having been demonstrated).
- There should be firm deadlines accompanying the revised process to reflect the requirements of the 2011 European Commission Waste Directive. These should be agreed with relevant stakeholders and then adhered to. Previous attempts to accelerate initially stated dates only served to arouse concern.

The process in Cumbria suffered from difficulties regarding the decision-making process. The current process requires involvement of several local planning authorities with different responsibilities (County and Borough) and there was a failure to reach agreement to proceed to Stage 4. Although the local (Borough) councils were in favour, the main planning authority (County) was not, with different factors at play. Given the national importance of GDF development, we would suggest that consideration be given to involvement of the Planning Inspectorate, as part of its National Infrastructure Planning remit, recognising the national importance of GDF development as a national infrastructure project under the terms of the Planning Act 2008. There would then be a requirement for a National Policy Statement concerning repository development and the associated investigations, into which the relevant local authorities will have input due to their role in the planning process. As discussed below, we would also suggest that responsibility for identification of initial siting areas (i.e. the current Stages 1-4) should perhaps be transferred to RWMD, as implementers of government policy. The decision-making process should continue to be staged, and public consultation and review encouraged at each decision point.

In addition to these possible improvements and amendments, we consider that the UK needs to bolster its research programme examining specific UK geological environments and how they relate to the range of potential disposal options seen elsewhere. Generic options have been developed, but the UK programme would benefit from focused research, possibly using a number of existing and potential (UK) natural analogues for various GDF components. In particular, the development of underground research laboratories (URLs) in other countries has played an important role in building confidence in gaining experience in sub-surface investigation and site characterisation, understanding of relevant geological environments and in the siting process. RWMD should increase its current participation in work in these facilities, and demonstrate its relevance to the UK situation. Wide dissemination of the results of this work would continue to build public confidence in deep disposal as a suitable management option.

What do you think could be done to attract communities into the MRWS site selection process?

Experience in west Cumbria suggests that despite the Partnership's best efforts, there was a degree of mistrust of both the current process and the authorities involved in it. This mistrust focused on issues covered in the White Paper (community benefits, right of withdrawal), but which were not sufficiently clarified there. Experience from currently successful overseas programmes (e.g. Sweden, Finland, US Waste Isolation Pilot Plant) demonstrates that trust is a major aspect in their success. We would therefore offer the following as ways of improving the level of trust amongst potential host communities:

- Pass legislation to guarantee the form, level and type of community benefits, including both short-term involvement and longer-term benefits, building on the principles developed by the West Cumbria Partnership and agreed to by government. This would guarantee that all reasonable costs incurred by organisations and communities in taking part in a new process would be covered by government from the very beginning.

- Provide clear comparisons between the costs of doing nothing (but having to build new and expensive storage facilities) and the proposed suite of community benefits, which, being generally longer-term in nature, can be discounted, thereby appearing as a lower overall cost but with a much greater benefit.
- Provide increased clarity concerning the right of withdrawal, especially regarding by whom it could be exercised. This may vary as the process progresses, recognising that the ultimate host community could be quite small, but on which the impact would be large. Enshrine this in legislation if necessary, informed by transparent discussions with the Local Government Association and others. Allow for local referenda at specified points. Emphasise that there will always be opportunities to challenge the science and decisions irrespective of the right of withdrawal, and that as emphasised in the 2008 White Paper, no site found to be unsuitable, even after underground investigations, would be developed. Early involvement of the regulators, as proposed below, would serve to reinforce this.
- Establish an independent body comprised of a small number of respected independent individuals (or possibly even a single person) to act as mediator and provider of information. This body would ensure all views were represented in national and regional discussions in a balanced way.

What information do you think would help communities engage with the MRWS site selection process?

One of the difficulties during the process in west Cumbria surrounded the issue of dialogue and information provision. DECC wished to demonstrate that the process was 'community-led', and therefore only responded to requests for information subsequent to the initial letter of invitation. This approach resulted in an information vacuum locally, which was easily filled by opposition voices. It also did not help that much of the language in the 2008 White Paper was as mentioned, rather non-specific regarding issues such as community benefits and the definition of an affected community, leading to various interpretations, which RWMD was unable to comment on with any certainty. Given RWMD's mandate and *raison d'être* as an implementing organisation, local understanding and confidence in the process might be improved if RWMD staff were more openly involved as concept 'champions'.

There is a clear need for more political support nationally for progress in the MRWS site selection process. It is not sufficient to simply send a letter to local authorities and then stand back. Such contact should be clearly indicated as the first step in an agreed schedule-driven process, following the national screening exercise already referred to. This is a trans-generational issue and should also be a trans-governmental issue with cross-party support. This would not conflict with the independent mediator role suggested above.

We suggest that the appropriate UK organisation – we suggest RWMD as implementer – takes a leaf out of the approach being followed in Canada, and becomes more proactive in its interaction with both national and local stakeholders and communities. This could be achieved by:

- Organising national and regional information and discussion meetings to explain the issues more clearly. The original CoRWM process developed a high level of confidence amongst stakeholders that their views were important.
- Endeavouring to demonstrate that GDF development addresses a national need, and is therefore a national issue.
- Making it clear that the most likely major impact on potential host communities would be the surface facilities. Opposition forces in Cumbria managed to conflate these and the underground footprint of a GDF

in such a way as to confuse and concern local people.

- Involving the regulatory authorities more, allowing them to discuss safety-related aspects in response to public concerns. The regulators should be seen as an 'honest broker' concerned with safety and thus able to demonstrate independence from policy.
- Providing more details of international experience and progress in siting and developing similar facilities. This would help to explain the approach being taken in the UK.
- Considering the possibility of supporting potential host communities in the UK to develop links with communities in other countries that have accepted and even welcomed GDF development, to encourage learning and information exchange.

We have responded above to the three specific questions posed in the Call for Evidence. We would, however, point out that there are several other relevant issues not related to these specific questions, and we suggest that DECC considers the possibility of holding a series of one-day workshops to explore these and the range of responses to the Call in more detail. For example, should DECC or RWMD actually have responsibility for driving the siting process forward in terms of public communication? DECC has responsibility for developing policy, but shouldn't RWMD have a responsibility for implementing that policy? This would allow development of an open and transparent relationship between RWMD and potential siting communities much earlier in the process.

Finally, efforts should be made to stress the importance to UK society of the safety-related aspects associated with the need to develop a GDF for higher activity radioactive wastes, irrespective of the requirements related to potential new nuclear build. Environmental NGOs that have traditionally opposed GDF siting efforts should be challenged to propose alternative strategies and to justify the safety impacts of doing nothing. The whole UK public has benefited in terms of nuclear electricity production, and the whole UK public must take responsibility for the resultant waste.

Galson Sciences Ltd 10th June 2013

confidential? If yes please give a reason

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

1. IMPROVEMENTS.

In general terms the issue of trust is the aspect of the site selection process most in need of improvement.

There evolved during the previous process a profound mistrust between some of the participants themselves within the MRWS Partnership (most notably with CALC), and a complete absence of trust between the MRWS Partnership and a large section of the general public, particularly Town and Parish Councils.

This evolution occurred initially because:- there had been no mention in the White Paper of June 2008 of any such body as the MRWS Partnership; the precipitate action of Copeland BC in making an Expression of Interest without any consultation; because its 'lead' participants were the somewhat less than disinterested bodies such as DMB's and the NDA; and later, because of the dubious insistence of the MRWS Partnership that more geological surveys were required to give a greater understanding of the geology of West Cumbria - this despite NDA having at its disposal the results of the extensive work carried out by NIREX in the late 1980's and 1990's, the results of the NIREX Inquiry of 1996, and access to copious studies and investigations by academics and oil, gas, and water interests over a number of years.

More specifically the following factors contributed extensively to an absence of trust:

1. The failure of the MRWS Partnership to comply with both UK and EU legislation in relation to a Strategic Environmental Assessment (SEA). The insistence of the Partnership that this assessment could be carried out after the beginning of Stage 4 (over halfway through the process)

was remarkably odd and presumably illegal.

2. The failure of HM Government to put the geology and hence fundamental safety, at the top of its requirements.

The principle of Voluntarism is very desirable, but geological considerations and safety were, and are, of paramount importance. Voluntarism should not come into play until a number of potential areas have been identified which are intrinsically safe.

3. The failure of HM Government to ensure that the requirements of the voluntarism process as set out in its own White Paper were adhered to by the MRWS Partnership.

The voluntarism process was hijacked by the DMB's for their own ends and under the noses of DECC representatives. Host Communities (clearly defined in the White Paper) were effectively sidelined and given virtually no recognition in the MRWS Partnership final report.

4. The so-called legal requirement that the decision whether or not to proceed to Stage 4 could only be taken by the respective Cabinets/ Executives of the DMB's and not their full democratically elected membership.

This led to the decision being taken in the two Borough Councils by small cabals representing very restricted geographical areas, all of which had been ruled out as 'unsuitable' by the BGS desktop survey.

5. The importance attached to the IPSOS/Mori poll results.

Analysis of the results showed that some 80% of those interviewed knew little or nothing about the radioactive waste issues, and in the absence of any mention of the proposed locality of a GDF it would have been difficult for respondents to give a meaningful response to the questions posed.

6. The inability of HM Government to ensure that the MRWS Partnership was led by an independent panel, thus ignoring best international practice, and allowing a process to develop which progressively departed from that outlined in the White Paper.

7. The CALC experience, whereby throughout the proceedings it had great difficulty in getting the Partnership to recognise that Parish Councils (representatives of the potential Host Communities) had a crucial role to play in the siting process.

8. The failure of the MRWS Partnership to properly address the geological

concerns regarding the integrity of the host rock of West Cumbria and its suitability for siting a GDF raised by Professors Smythe and Haszeldine. Instead of taking this as an opportunity to engage in a proper debate the Partnership chose to try and belittle the individuals and the information they were presenting.

ATTRACT COMMUNITIES.

The short answer to the question of attracting communities is for HM Government to display a far greater degree of transparency, honesty and integrity than hitherto shown. We note already in 'The Call for Evidence' an absence of these qualities.

For example:

1. In Point 5 of the introduction it is stated that an approach based on Voluntarism and Partnership Working can work by quoting examples from Canada, Sweden, France and Finland.

What is not pointed out is the very different approach taken by at least 3 of the 4 countries. Leaving aside the Canada example (huge country, small population and very different from UK) we do know that before the Voluntarism and Partnership Working approach was utilised in Sweden, France and Finland a geological survey of each country (Presumably in compliance with EU regulations relating to an SEA) was carried out, and all but a handful of areas ruled out as unsuitable for deep geological disposal. From those areas not ruled out, volunteer communities were sought.

This was putting geology (and hence safety) first and Voluntarism and Partnership Working second, a complete contrast to the previous process adopted for the UK and which HM Government seem to wish to continue.

It does not auger well for the future that this difference in approach is not highlighted.

2. In Point 6 of the introduction the fact is mentioned that two local authorities in West Cumbria voted in favour of moving to Stage 4, thus demonstrating that those "communities recognise the substantial benefits that are associated with hosting such a facility". Yet what is completely ignored is the fact that Cumbria County Council, the senior local authority, voted against continuing because of doubts surrounding geology and safety.

Also ignored is the fact that the ten member County Council Cabinet had a far greater geographical and population coverage than do the seven member executives of the two Borough Councils which are drawn respectively from wards in Whitehaven and Workington and the immediate surrounding hinterlands, all areas of which were ruled as unsuitable for a GDF by the BGS Survey.

3. It has been reported that following the termination of the site selection process in West Cumbria, meetings have been held between the Leaders of the two Borough Councils, the local MP and HM Government. Quite why these meetings were held and what the substance of them was, is largely unknown.

Such meetings only engender suspicion and are far removed from the transparency required to attract and encourage communities to the site selection process.

INFORMATION

1. First and foremost the length of time for which higher activity wastes remain harmful needs to be made clear.

Statements that such wastes can be "potentially harmful for hundreds of thousands of years" while alarming in the extreme need a greater degree of certainty attached to them. How potentially harmful? How many hundreds of thousands of years?

If there is no certainty to these questions then it should be stated.

2. What also needs clarification is how long an underground man-made disposal facility and the various secondary engineered barrier systems are expected to last.

3. There is serious concern about the ability of West Cumbria's infrastructure to deal with the present situation, let alone handle any additional large engineering project.

A potential GDF, a potential new-build nuclear power plant, major Grid upgrading, and the continuing requirement for the Sellafield site to operate, indicate a definite need for both a modern road and rail infrastructure.

Will this be forthcoming and will it be provided before work starts on any of these large projects?

4. There should be a clear and unequivocal statement that there will be no 'above-ground works' both in, and within the setting of, the National Park.

Specifically, all areas of Eskdale and Ennerdale granite within the National Park must be ruled 'out of bounds' to any activity relating to deep geological disposal.

The highest level of protection possible is afforded by legislation to National Parks and that level of protection should in no way be

compromised.

5. It should be made clear that groundwater flows, hydraulic gradients, as well as rainfall are important considerations in relation to siting a GDF.
6. It would be helpful if a clearer definition of 'community' than appears in the White Paper could be made.

The use of the term 'community' has shown no bounds in elastic interpretation. This was highlighted many times during the previous process as the DMB's sought to imply that they had support for proceeding as they wished, or even misrepresented facts to their own advantage eg. Defining themselves as Host Communities.

Time and time again the 'Community of West Cumbria' was referred to by the MRWS Partnership and repeated by the media – there is no such thing. West Cumbria is a collection of communities, many of them in dispersed rural areas.

7. Point 6 of the introduction to this document illustrates the blurring between local authorities and communities.

The two local authorities (actually the 7 member executives for each council) certainly voted in favour of proceeding to Stage 4; all of the communities which make up each local authority area had that decision thrust upon them. This did not prevent the leader of Copeland Borough Council claiming she had a mandate for the 'community of West Cumbria' – as stated above, there is no such thing.

8. Despite the assurances given in regard to the Right of Withdrawal, in reality because this was not legally binding, any Decision to Participate was in fact a final decision.

The DMB's appeared not to recognise this situation but in any future process it should be clarified at the outset.

Name	REDACTEDREDACTED
Organisation / Company	Greenpeace UK
Organisation Size (no. of employees)	REDACTED
Organisation Type	REDACTED
Job Title	REDACTEDREDACTED
Department	REDACTEDREDACTED
Address	REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED REDACTED
Email	REDACTEDREDACTEDREDACTED
Telephone	REDACTEDREDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

1. Greenpeace is a campaigning organisation which has as its main object the protection of the natural environment. Greenpeace has worked on the issue of nuclear power since its inception. It has gathered expertise and access to expertise on all issues to do with nuclear power including safety, health, security, economics, transport, waste and proliferation. It is currently applying for a judicial review of the Order granting development consent for Hinkley C and this response is made without prejudice to that claim.
2. The Government policy has been to pursue geological disposal through voluntarism. That policy has failed and there are no candidate authorities and no prospective sites for geological disposal.
3. On the other hand, voluntarism is the only method proposed to succeed in delivering a site for geological disposal. This is clear from evidence abroad and from the substantial work undertaken in advance of the MRWS White Paper.
4. The Government asks what aspect of the site selection process in the MRWS White Paper we think could be improved and how, what could be done to attract communities into the MRWS site selection process and what information we think would help communities engage with the MRWS site selection process.
5. The key, in Greenpeace's view, is that Government should separate the problem of dealing with existing nuclear waste from plans for dealing with future waste from new build. Nuclear waste that already exists has to be dealt with as safely as possible in a way that presents the least danger to present and future generations. It may be possible to gain the consent of a community for disposal of wastes that already exist, but only without asking them to also accept additional wastes (which could be significantly more radioactive), which may be produced in the future through new build.
6. In the 2008 White Paper the Government promised that no consent for nuclear power stations would be given without being satisfied that a disposal route exists or will exist. The evidence is that none will be achieved without voluntarism, and without communities knowing what they are being asked to deal with – i.e. a firm inventory on the radioactive waste. Without this it will prove infinitely more difficult, if not impossible to implement the policy of voluntarism.

The West Cumbria MRWS Partnership clearly had concerns, for a range of reasons, over the inventory it might be asked to accept for disposal in any GDF sited in Cumbria. That they wanted any potential host local community to have a say in this matter, and the relevant decision making body (in this context the relevant local authority) to have a right of veto over the extent of the inventory, was clearly spelt out in the inventory principles that the Partnership produced. That veto was

proposed as an additional 'control', even after the Right to Withdrawal for GDF construction had passed. This is an example of where, if legacy waste disposal had been accepted, new build waste disposal might still have been refused. The lack of clarity over how much waste might be disposed of in a GDF was raised by the then Cumbria County Council leader in the debate on this matter on 30th January.

7. The MRWS process was set up following the deliberations of the first Committee on Radioactive Waste Management, which was emphatic that new build wastes should be considered under a separate process to legacy wastes. The Government continues to foist new build onto a process based on recommendations to deal with legacy wastes.
8. It cannot be assumed that there will ever be a willing host community for a legacy waste repository and it can certainly not be assumed there will ever be a willing host community for both legacy and new build waste.

MRWS site selection process?

I am aware that the consultation closed yesterday but both myself and our REDACTED REDACTED have suffered from bereavements during the consultation process so were unable to respond prior to this and we would request that this submission be accepted on compassionate grounds related to the circumstances, as this is the day following the closing date

Our Association has recently been set up to campaign for consultation with local communities affected by the transport of nuclear waste from Dounreay to Sellafield

We would argue that all nuclear waste should be stored above ground with constant monitoring and security rather than transporting between sites which increases risks of accident, terrorist attack and increased radiation

A recent report by Environmental Correspondent Rob Edwards highlighted an increase in accidents involving nuclear waste transport to Sellafield during 2012 based on Government statistics

We would therefore submit that the proposal to build a Geological Disposal Facility increases the risks of nuclear accidents as it will result in increased movements to a site from nuclear power stations throughout the UK

In addition we know from Finland and other countries that depositories cannot be constructed to be 100% safe as rock fissures and unforeseen earthquakes can happen in any part of the UK, which would result in a catastrophe on the scale of Fukushima or worse

I would cite a Danish documentary by the Director Michael madsen entitled "Into Eternity" (released in 2010) about the Onkalo nuclear waste repository on the island of Okiluoto in which the chief engineer involved in the construction also stated the fact that no depository can be made 100% safe as the site has to remain safe for 100,000 years - an engineering task never previously achieved. The proposal is to seal it and never open it again !

We do not believe this would be a way of managing waste safely and your suggestion in Paragraph 10. that any facility built would not require human intervention is both reckless and misguided – the term “permanent disposal solution” is meaningless as no such solution has been found by the nuclear industry anywhere in the world to date

You cannot protect from “disruption by man-made or natural events” as suggested in Paragraph 12.

There is no safe solution and it is certainly not achieved by burying waste at levels between 200 and 1000 m underground – it is impossible to “ensure that no harmful quantities of radioactivity reach the surface environment”

Given that currently no communities in the UK wish to have a depository built in their areas we will be encouraging any community even thinking of acceptance to take into account all the factors described in this response

The site selection process should be discontinued and nothing should be done to "attract communities into the MRWS site selection process"

Given the above view the question relating to "what information would help communities" will not be necessary

So HANT will join with other environmental groups and supportive organisations to ensure that all waste is stored above ground under constant monitoring

We would wish to be informed about the outcomes of the consultation and any future proposals in the unlikely event of any community welcoming a nuclear waste depository in their community, and any continuation of the process should maintain the principle of voluntarism and it should be illegal for any overt or covert pressure to be applied to communities by the Government or the nuclear lobby and industry

REDACTEDREDACTED HANT : Highlands Against Nuclear Transport (on behalf of the HANT Management Committee)

REDACTEDREDACTED

As we still seem to have some software problems I've pasted in the response of Holme St Cuthbert Parish Council below.

REDACTEDREDACTED

For and on behalf of Holme St Cuthbert PC, Mawbray west Cumbria.

Address: REDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTED

Tel. REDACTEDREDACTED

Please add to mailing /contact lists.

1. Site Selection.

The key factor in identifying an intrinsically safe site is inevitably the suitability of the local geology. Only after the pre-determination of areas/regions with a high potential for geological suitability should the procedure for seeking local voluntarism commence. This has been the mechanism that has worked in ALL other countries (including those listed in your preamble) in which geological disposal of R/A waste is being investigated or progressed. The previous MRWS process ignored the geological issue and jumped straight to the voluntarism level. This created an inevitable conflict in West Cumbria between the 'Nuclear (Sellafield) Lobby' and those who had experience of the NIREX Inquiry and who had serious concerns about the geological suitability of West Cumbria. Many eminent geologists also questioned the logic of seeking a site in West Cumbria as the area's geology has been extensively studied over the years and its nature appears to offer little in terms of its suitability for this particular purpose. Even the British Geological Survey was hard pressed to isolate even small areas of West Cumbria that might be proven suitable even after a long and expensive study.

It would make much more sense in any future MRWS programme to first identify a shortlist of locations where suitable geology may be found after which communities may be consulted comprehensively. In West Cumbria such comprehensive consultation did not occur as it was only very late in the process that the MRWS partnership conceded that the geological issue was important, in fact their final report gave only scant mention of geology. The methodology of the MRWS process to date i.e. first find a 'willing community' then find out if the area contains a fit for purpose site is at best illogical and at worst lazy and incompetent. To place primary emphasis on the willingness of the local community rather than the safety and integrity of the site smacks of expediency if not complacency.

2. Voluntarism and the Willingness of Communities.

How is any of this defined? In the initial stage when local authorities were asked if they wanted to put forward their areas for consideration NONE of the local councils representing West Cumbria made any attempt to consult the local community – in effect they took a political decision to volunteer on our behalf. It is unlikely that when local communities elected their councillors they intended to empower them to this extent.

At the end of the MRWS 'consultation process' the local authorities were then put in the position to decide whether or not to proceed to the next stage of investigation (the stage that really should have come first as it has done in all other countries engaged in this process) – it is hard to imagine how these men and women would feel suitably qualified to make such a decision particularly in the absence of any meaningful community consultation. How were they to decide on what level of voluntarism would be appropriate to proceed even if a local referendum were to take place -51% in favour, 75% in favour, 100% in favour? Also what about those communities that would be directly affected i.e the people whose land and homes would either be lost or devalued - should their views be given a higher weighting?

Also what of those communities not within the consultation boundary but who are near enough to nevertheless feel an equal level of impact – should they not also have a say?

Clearly much more thought needs to be put into the definition of voluntarism and exactly what constitutes a 'willing community'

3. The MRWS Consultation Process.

Much has been made of the MRWS consultation in West Cumbria and it has received a high level of praise in some areas. How was it then that widespread awareness of the plans only emerged a few short weeks before the deadline for local authority approval meetings? During those weeks local communities mobilised themselves to such an extent that the Government and Local Authorities were panicked into postponing meetings and extending deadlines.

Why was it that given all the resources that the MRWS partnership had to hand it signally failed to communicate adequately with the local community in West Cumbria?

Perhaps at a time when we are bombarded with nuisance telephone calls and junk mail the decision to consult via phone surveys and mailshots was not the most sensible approach to adopt. Throughout the MRWS process in West Cumbria very little mention was made in the mass media – local TV, Radio, Press etc. indeed the phrase 'media blackout' became more and more common within the community.

It could almost be felt that the whole procedure was designed to deliver a yes vote by an organisation predisposed to finding a disposal site in West Cumbria.

An attempt was made to show that a majority of local people were in favour of moving to the latter stages of the process however it became clear that this rested on the interpretation of the answer to a single question in a postal questionnaire and a single telephone survey. How was it then that in only a couple of weeks thousands upon thousands were signing petitions opposed to the process?

Why was it indeed that the 'powers that be' chose to ignore the massive majority of Parish Councils who voted against progressing the programme? Parish Councils are by their nature far closer to the mood of their communities than are Borough and County Councils yet their views were cast aside.

Any future consultation will need to ensure that it is comprehensive and thorough unlike in West Cumbria where it displayed a level of complacency probably borne out of a false assumption that West Cumbrians are all pro-nuclear and would therefore fall into line.

Future consultations should also be more imaginative in their approach – in retrospect the West Cumbrian experience appears quite amateurish.

REDACTEDREDACTED

Dear Sirs

I am a REDACTEDREDACTEDREDACTED and REDACTEDREDACTEDREDACTED with Special Reference to REDACTEDREDACTED at Imperial College London.

I consider that the issues concerning the safe geological disposal of radioactive waste are of such strategic importance for the whole UK population that the UK Government should – on behalf of all of us – engage directly with the two district councils who voted in favour in order to explore the way forward. I see no reason for the County decision to over-ride the national interest, in any new process, particularly when the two district councils who voted in support occupy an already industrialised coastal strip effectivley demarcated from the bulk of the Cumbrian region.

Yours faithfully

REDACTEDREDACTEDREDACTED



Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	Kent County Council
Organisation Size (no. of employees)	
Organisation Type	REDACTED
Job Title	REDACTEDREDACTEDREDACTEDRE
Department	REDACTEDREDACTEDREDACTEDRE
Address	REDACTEDREDACTEDREDACTEDRE DACTEDREDACTEDREDACTEDREDA CTEDREDACTEDREDACTEDREDACT EDREDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTEDRE
Telephone	REDACTEDREDACTEDREDACTEDRE
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
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- What information do you think would help communities engage with the MRWS site selection process?

Kent County Council supports the principles of volunteerism and partnership in relation to the implementation of geological disposal of nuclear wastes.

In 2012 Shepway District Council (which covers Folkestone and the Romney Marsh in South East Kent) had taken soundings from local residents, but subsequently decided against making a formal expression of interest in the current MRWS process.

At a meeting of the Full Council on the 19th July 2012, Kent County Council totally opposed the establishment of a Nuclear Research and Development Facility in Kent; and resolved that, should Shepway District Council decide to progress this proposal further, the County Council should review whether or not to hold a Kent-wide referendum on this proposition at a future date.

The following comments are provided in the light of the July 2012 decision of Kent County Council. Provision of these comments should not be considered to imply that there would be any change in stance by the Council regarding any future proposals for the geological disposal of nuclear waste in Kent.

First Bullet Point – The site selection process could be improved by Defra/BERR/the devolved administrations for Wales and Northern Ireland commissioning a baseline desk study of the UK with regard to geology and seismicity in order to (a) eliminate areas that are unlikely to be suitable for the geological disposal of nuclear waste and (b) to identify 'areas of search' where the geological and seismological conditions may be suitable for the geological disposal of nuclear waste, subject to further exploratory studies. This desk study could be undertaken by BGS or other suitably qualified geological consultants.

Second Bullet Point – The package of financial benefits that would be available for the host communities should be identified and a commitment made to make this available in a staged manner for any host community that volunteers to host a Geological Disposal Facility in order to reward the community both during the initial feasibility stages and during construction/operation of the facility.

Third Bullet point – The provision of sound technical information on geology and seismicity,

together with clear information on financial reward packages available would assist communities in deciding whether they wish to engage in the MRWS process.

From REDACTEDREDACTEDREDACTED Keswick Council.

The process of finding a site was flawed in a simple but basic way. The search for a site must be safety driven, not driven by voluntarism, which is in this case simply the easy way out.

The stages of finding a site must always be

- 1) A paper search to find the most likely sites.
- 2) If necessary the exploration of the most promising of those sites to see if they are as safe as anticipated.
- 3) A dialogue with local democracy, with sweeteners, to gain the agreement of one of the sites.
- 4) Proceeding to build.

Without stage one, you are seeking someone willing to take the waste (obviously this is a way of pressuring those where it is currently stored above ground. You then intend to see if an adequately safe site can be found near there. Obviously, it is virtually certain that a site found by this means will not be one of the safest possible nationally. And you know this to be true.

Our only course locally is to make so much trouble that for Whitehall doing the process properly will be a necessity. We will do this.



Date 9th June 2013

Dear Sirs,

Call for Evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Facility

This letter represents the views of the undersigned Cumbria County Councillors who represent the Copeland area of the County.

Question 1 - What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

Voluntarism and Partnership should remain the basis of any MRWS policy, but in areas with two tier Local Authorities (the decision making bodies) consideration should be given to the development of a formally agreed partnership between such Authorities, including an agreed mechanism as to how their communities would be engaged and consulted prior to any formal Expression of Interest. In addition to the agreement between Local Authorities, the arrangements for the involvement of all other members of any Partnership should be explicit.

The Localism Act has introduced a clear requirement for cooperation between Local Authorities and other organisations and this should provide a solid basis for producing better mechanisms.

Recent experience has shown the need for greater clarity over the "right of withdrawal" is necessary as misrepresentations of the Government's assurances had a greater impact on public opinion than its true position.

It is also clear that an approach which prioritises Voluntarism over any meaningful assessment of regional geological suitability will lack credibility with the public unless real effort is made to explain and justify it.

Within the limitations of the previous process it is considered that the West Cumbria Managing Radioactive Waste Safely Partnership worked well and provided an unprecedented level of public and stakeholder engagement, but limited advocacy for the process was outweighed by opponents who were able to focus on (largely spurious) safety issues and other fears.

Question 2 - What do you think could be done to attract communities into the MRWS site selection process?

The case for deep geological disposal needs to be made much more clear and convincing; in particular the advantages of that solution in contrast to shallow or above ground alternatives need to be spelled out. The WCMRWS Partnership was unable to fully address another genuine concern, that of the extent of retrievability of wastes during and after the completion of emplacement.

Uncertainties about any guaranteed delivery of quantifiable additional benefits, above and beyond those associated with investigation and construction work need to be fully addressed and resolved. This is a matter for Government as a whole, not just for DECC who are clearly not fully empowered to provide the scale of assurances and certainty required. The lack of clarity in this area created distrust which was exploited by those opposed to any successful continuation of the process.

Despite efforts by Ministers to reassure Local Authorities that they would retain a right of withdrawal until the entire approval process had been completed and construction had started, these proved insufficient to convince those opposed to continuation.

It is suggested that the risk related research proposed by the WCMRWS Partnership should be continued as it will assist in resolving some issues in this area.

Clearly one of the key problems with the process so far is the lack of advocacy for it, a lack of confidence in regulation and a perception that community concerns will be overridden in the 'national interest'. This was overcome in Sweden and more effort needs to be applied to understanding why confidence established there could not be replicated in this country.

It may be that in addressing some of the expectations raised by the Localism Act, the offer of a referendum to, say, a Borough/District area would be appropriate. It should be remembered that in Copeland, over 67% of those responding to the Ipsos/Mori poll were in favour of continuing with the investigations and opposition only grew as irrelevant fears were raised by opportunistic opponents.

Question 3 - What information do you think would help communities engage with the MRWS site selection process?

The current storage solutions are unacceptable in the long term, but the explanation of why there is a national interest in ensuring a deep geological disposal site is developed has not been satisfactorily made.

Uncertainties as to the size of any facility both above and below the surface, coupled with a lack of clarity regarding the precise nature of the material to be deposited in it, need to be resolved in a way which is understandable to the public.

The question of what is acceptable geology and how this compares to the potential acceptability of an area is key. This is inextricably linked to the need for confidence in regulators and certainty about the quality of the overall safety case.

The particular economic and environmental characteristics of any area engaging with this process need to be recognised and respected. The desire of local people and communities to protect what they know and value as opposed to engaging in a project with unquantifiable risks and benefits is understandable.

It is crucial that a project of this magnitude and importance is properly explained to the communities engaging with it. This will require a professional capability to

communicate information and address concerns identified by the WCMRWS Partnership, but yet to be deployed by DECC.

Conclusion

We were extremely disappointed that the previous Cumbria County Council administration did not agree to move to phase four of the MRWS process. Despite the issues and concerns raised above we were confident that all matters could and should have been addressed during that phase of the programme. It is clearly in the interests of the people and communities that we represent, that a solution to the issues surrounding nuclear waste management is resolved. We believe that these and the other issues concerning the future of the nuclear industry will only be resolved through genuine and open dialogue.

Yours sincerely,

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Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.qsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	

Lake District National Park Authority



Would you like to be kept informed of developments with the MRWS programme?

yes

Would you like your response to be kept confidential? If yes please give a reason

no

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

Based on our experience of the previous MRWS process, we believe that there is a need for the White Paper to provide greater clarity and precisions over the purpose of each stage of site selection, and the process that would be followed. A great deal of concern amongst communities and stakeholders related to the inherent uncertainty of what they were being asked to commit to at each stage; the full implications of decisions that were required to be taken were not fully understood (for example there was a belief in some communities that a decision to participate was a decision to begin construction).

Based on international experience consideration should be given to determine whether a more detailed geological assessment is undertaken prior to engaging any potential 'host communities' to determine if there is a reasonable prospect of a suitable area being found. This would give affected communities confidence that the underlying geology was suitable for a GDF and engineering solutions were not simply being designed to support the available host rock. As part of the geological assessment details of the scale and nature of the exploratory process needs to be clearly identified and articulated to avoid misinterpretation of shorter term impacts resulting from investigations.

Clarification and reasoning should be provided about when (i.e. at which stage) a Strategic Environmental Assessment would be undertaken in order to comply with European legislation.

The Right of Withdrawal should be established in legislation to build trust into the process and give communities (at every level) confidence that they are not bound by decisions they take when investigating the prospect of hosting a geological disposal facility.

What do you think could be done to attract communities into the MRWS site selection process?

The safety of a GDF is the primary concern regarding the site selection process, and communities need to have trust in the regulators, designers and operators that safety is their

primary concern.

Whilst safety needs to be recognised as the critical factor in attracting communities into the MRWS process, it is appropriate for Government to outline - based on evidence and assessment of need - what community benefits would arise from hosting a facility. Government should give serious consideration to not only developing the benefits packages, but also start to bring these forwards for implementation as part of the process once geological suitability and safety are assured, as this will build trust and confidence that commitments to benefits will be honoured.

In West Cumbria critical strategic infrastructure improvements are required. Improvements to rail infrastructure on the Cumbrian Coastal Railway Line would benefit residents, business, and visitors alike. Such improvements will give communities confidence in the authenticity of the commitment to support them should they host the facility and it would assist in maintaining positive engagement and buy-in.

Clarification about who makes up or represents a 'community' would be beneficial to the process, as ambiguity proliferates further mistrust in the process.

What information do you think would help communities engage with the MRWS site selection process?

Throughout the MRWS process we received a clear message from local communities that retrievability was critical to their acceptability of such a facility. This was based on a view that it was imperative that remedial action could be taken should the waste within the facility begin to escape or become insecure.

In order for a new MRWS process to successfully take place Government should clarify whether waste would be retrievable and/or able to be monitored, together with a full risk assessment of the potential options. With increased certainty and understanding, communities would be better informed and able to engage with the process more meaningfully.

Communities were also heavily focused on the potential impacts upon the Lake District National Park. This concern can be categorised into two main themes. First, there is particular concern over the impact upon the Cumbrian economy, which is so heavily reliant upon tourism – particularly in and close to the Lake District. Businesses capitalise upon the Lake District 'brand' and public perception of the area is critical to success. Brand protection is very much seen to be a necessity as part of the process and beyond, should a facility be accommodated in Cumbria. We believe it would be essential that an economic assessment is undertaken to determine what impacts a GDF could have on the wider economy, as this would provide an understanding of potential benefits and harm which could result from a GDF.

Second, giving protection to the National Park for its own sake - in line with statutory National Park purposes and in recognition of its defined Special Qualities – was a strongly voiced opinion. This made it clear that more thought needs to be given to the parameters of what may be appropriate locations for both surface and sub-surface development to accommodate a

disposal facility.

Based on the experience of the West Cumbria MRWS process it is clear that the question of identifying areas of National Parks for consideration is very contentious and is likely to be contrary to National Park purposes as outlined in legislation. It may be beneficial to future processes to exclude areas which are the subject of National Park designation.

First decide to treat spent fuel from Sizewell B and any new light water reactors separately from stocks at Sellafield, both current and that which will be sent to Sellafield from gas cooled reactors and possibly military sources.

Second decide to investigate the possibility of geological disposal beneath the site or under the sea with access from Sellafield or the site where the spent fuel is generated. If this is possible then it should be easier to argue that geological disposal at the site is safer than the alternative which is to store above ground. The only extra disruption to the local community will be the construction of the repository.

The two 1.6GW(e) stations planned for Hinkley Point C will produce 7,200 spent fuel assemblies assuming the predicted high burn-up is consistently achieved. The actual number could be as much as 20% higher than this. It represents about one fifth of the size of the geological disposal site size needed for all the existing high level legacy waste.

If a second station is also built at Sizewell the waste repository would be similar to that for Hinkley.

These station repositories could be started or explored and tested at the same time as the new stations are constructed so reducing the disruption to the local community. However the repository would not need to be commissioned until about 90 years after the commissioning of the power station and would not be closed at least until 90 years after the closure of the last power station on the site.

This proposal has the added advantage that the full cost of nuclear power from these sites will be transparent.

The site may not be ideal from a geological standpoint and may therefore require costly engineering to meet geological isolation requirements but this is no different from the current policy.

The other potential disadvantage is that it may make new sites for nuclear power stations more difficult to obtain.

If a site is totally unsuitable from a geological perspective then spent fuel could be transported to another power station site however this could mean that planned repositories have to be larger than that based on the output from the site stations alone.

This does not solve the Sellafield problem if locations that could be accessed from the site are totally geologically unsuitable and cannot be engineered safe. I trust this is not the case as so much effort has been expended on the "West Cumbrian Option".



Hope this helps

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Lancaster University REDACTEDREDACTEDREDACTED.

Sirs,

My position is an interested observer and REDACTEDREDACTEDREDACTEDREDACTED near Carlisle.

If you don't mind me saying so, up to now your process has been fundamentally flawed. Voluntarism won't work: NOBODY wants a nuclear dump in their area.

Further, historic nuclear industry secrecy, avoidance and misinformation, plus scaremonger journalism has persuaded the population at large never to trust what the nuclear industry tells it. For the last 20-years the general consensus at this end of the country has been: 'the Government and nuclear industry intend to find only one site for disposal and that is in West Cumbria. The rest of their approach is just a cynical operation to justify it.'

A more sensible approach to storage would be to:

- 1 Ensure above-ground facilities are as good as they can be, whilst
 - 2 Establishing what the correct geology and depth for a dump is.
 - 3 Locate potential sites with the correct geology. I understood this is what NIREX did 20-years ago – the geology can't have changed since.
 - 4 consultation - negotiate whether favourable identified sites can be used and what effect there will be on the surroundings (short, medium and long-term).
 - 5 Simultaneous with 1 to 4 a public education campaign to elucidate and explain all issues and risks; including how you will mitigate all risks. Without public understanding of intention and methodology, our answer will always be 'no, you can't put a dump here'.
 - 6 Finally the Government will have to legislate to force the dump to be at the correct site(s). The correct site is never a political location – it is only the scientific one.
- Prove to us that the science is correct.

This process and digging the hole is going to take a long time: decades. In the meanwhile aging nuclear storage facilities at Sellafield need urgent attention. These won't last and should be improved before it's too late and we experience the very thing the dump is intended to prevent. We must act now because everything the nuclear industry does takes decades to implement (even without any public interplay – it's a phenomenon far beyond my powers of explanation).

Public information: typical questions to answer for us might be:

Is underground storage a good idea? Why? How do we access a specific container when it leaks (as it will eventually)?

Why do we think putting waste into a hole in our tiny crowded country is a good idea? Have we considered other bigger, emptier countries? Putting it back where it came ? Is there a reciprocal deal we can do: swap reprocessing for storage?

Who's waste is going into this hole – just England's or everyone's? I don't suppose there's much opportunity to use a dump in lower population density Scotland or Wales now they are devolved?

Are all the eggs to be in one basket? There will be more than one site won't there? Just in case you need to clear a site to repair something ...

How do we stop waste getting into ground water?

How many decades does concrete encasement/ vitreous enamel/ stainless steel containerisation last? Do we replace the containment at regular intervals?

What happens if there's a new fault-line right through your store? (or earthquake or serious roof collapse).

Where's the BBC Horizon programme explaining all this?

I think you delude yourselves in this statement (taken from the Call for Evidence document):

6. The fact that two local authorities in west Cumbria voted in favour of continuing the search for a potential site for a GDF demonstrates that communities recognise the substantial benefits that are associated with hosting such a facility – both in terms of job creation and the wider benefits associated with its development.

Copeland and Allerdale are job-poor and reliant upon the nuclear industry for work: submarines and Sellafield (which is ran from Warrington, not W. Cumbria). Because of this and other factors (substantially higher nuclear remuneration and benefits than the area norm; nuclear sponsorship of recreational facilities, public halls etc.) people feel compelled to offer support to anything nuclear. It upsets local Councils ability to make balanced judgements: effectively W. Cumbria is 'bought off' by circumstance, with little choice but to say yes. The 'dump or no-dump' issue was a struggle: Parish Councils voted approximately 50-50 in Allerdale and Copeland. We're divided on the 'job creation' carrot too – digging a hole may employ a few supporting-role locals for a while but mostly it will be outsiders: big projects aren't done locally in this country, not even in London.

I'm not against a dump but would like to see it properly thought through and located correctly. We have time to get it right if we properly store waste above ground in the meantime.

For above-ground storage no better location exists than the old Battersea Power Station – being directly upwind from Whitehall would ensure the best possible facility and the site would be amongst those grateful 'primary users' of nuclear energy.

For below ground storage the best place is probably in the Earth's Mantle but it's beyond us to put it there.

Kind Regards
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From:
Sent: 10 June 2013 11:17
To: radioactivewaste (DECC)
Subject: Call for Evidence: MRWS: Review of Siting Process for a Geological Disposal Facility

Morning

Maryport Town Council met on Monday 3 June & offers the following views:

The complex geology in West Cumbria renders it unsuitable for a geological disposal facility & the selection process should be based on the identification of areas nationally which are considered to be geologically suitable for nuclear waste storage, from which a suitable site or sites, could be selected.

Regards

This email was received from the INTERNET and scanned by the Government Secure Intranet anti-virus service supplied by Vodafone in partnership with Symantec. (CCTM Certificate Number 2009/09/0052.) In case of problems, please call your organisation's IT Helpdesk. Communications via the GSi may be automatically logged, monitored and/or recorded for legal purposes.



McCombie Consulting

Technical and Strategic Advice in Radioactive Waste Management

- Confidential initial talks with local community leaders must be possible at the early stages
- If possible, potential volunteers should not be publicised individually as they appear, since snipers (i.e. opposition activists) can more easily pick out one head above the parapet
- The siting team needs to have a rapid and flexible approach to engaging with local communities – before local or external opposition groupings can get firmly established
- The persons acting as direct interfaces to siting communities should be chosen, not on hierarchical principles, but rather for a proven ability to communicate well and to empathise with local representatives.
- At a more technical level, there are also crucial items that can affect success or failure:
 - The siting team **MUST** have technical credibility; this has to be earned by openly and competently addressing all relevant issues and by networking with the national and international scientific and technical communities. The RWMD team has made progress in this respect since the demise of Nirex, but continued efforts are required
 - Openness and flexibility are required also in the technical assessment of disposal options. It should be made clear always that many geological environments will be able to provide safe containment and that there is no “safest” technical solution
 - Hands-on experience in almost all of the technologies required for geological disposal can be obtained through working in underground laboratories (URLs). The UK has always been involved to some extent in foreign URLs. However, a national facility would offer more build-up of technical know-how, and importantly, could act as a valuable tool for communication with the public. No successful national programme has attempted to proceed to repository implementation without having an underground laboratory.

Finally, at the highest strategic level, the UK should try to revive some of the public pride in its nuclear capabilities that used to be visible. The NDA was born with an unfortunate name, reflecting the downbeat attitudes to nuclear at that time. Today, public and governmental opinions are more positive. The UK should strive to become one of the leading nuclear power nations once more. This will require much effort from industry and academia, as well as firm government support. An important component of any nuclear power programme is the existence of a credible waste disposal programme. Rather than presenting the mission of NDA and RWMD only as the cleaning up of legacy wastes that have been neglected for far too long, the waste management mission should be presented as a dynamic, forward-looking effort. The declared aim is to address, in an ethically correct way, the difficult but surmountable challenges facing a nation convinced that nuclear power must play a key role in meeting its future energy needs.

Yours sincerely

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The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

The present site selection process in the UK is based entirely on administrative regions volunteering to become involved in the MRWS process and is an obvious reaction to the site selection process carried out in the 1980s by Nirex which took place essentially in secret.

In the Introduction it is stated that this approach of voluntarism and partnership is in line with the approach followed by other countries, however, this is only partially true and ignores some very significant factors and processes which have not formed part of the MRWS programme, but have been included in almost all other countries' programmes. The approaches which have been followed or are being followed in the countries listed in the Introduction are thus not synonymous with the approach that has been followed in the UK, as is outlined below:

- The approach followed in France, Sweden and Finland was not what might be termed 'passive volunteerism', as has been followed as part the MRWS process in the UK to date, where a waste management agency or government department sends out documents to the appropriate municipal bodies and then waits for their response. In all these other countries the approach has been far more proactive and involved actions and processes which have not taken place in the UK, or have taken place here with far less input from DECC, RWMC or any other organisation and I expect with far less money being spent:
 - In France, following the Bataille Report (Bataille, 1991: Rapport sur las gestion des déchets nucléaires à haute activité. Raport de l'Office Parlementaire d'Evaluation des Choix Scientifiques et Technologiques.) and the new law on the development of a potential geological disposal site and the associated research programme, a team of people, headed by M. Bataille, who was an MP, made visits to many départements to explain the process that was being followed and what would be involved in the site investigation programme and the potential development of a URL; also, the benefits that would accrue a département that agreed to be considered and where a site investigation programme and URL development then took place, which amounted to 60 million francs a year at the time. In parallel with these visits and discussions Andra carried out an analysis of where in France might be geologically suitable for developing a URL (and eventually a repository), with the result that maps were produced that showed which granites (the term used for areas of crystalline rocks in general) and areas of sedimentary rocks might be considered suitable (it was decided that there were no suitable evaporites in France). For example, fifteen areas of granitic rock were defined as being of interest to Andra and to BRGM in their research

programmes and desk-based studies were carried out on these granites. In addition, Andra involved themselves directly with URL programmes in Sweden, Switzerland and Canada and sent staff to work in these URLs. In parallel with the eventual investigations at three potential URL/repository sites, there has been an extensive R&D programme, as outlined in the various Andra Dossier reports (see references to them below). An initial requirement of the legislation was to develop a minimum of two URLs and then, having carried out years of research underground, to select which type of disposal environment was most suitable. However, following the abandonment of the site near Limoges in 1999, after an extensive site investigation, there were problems in selecting another granite site and the legal requirement of having two URL sites was dropped. The relevant government departments in France and also Andra have, for many years, during the site selection programme and also during the R&D programme, been far more proactive in promoting their work than has been the case in the UK, where both DECC and RWMD in particular appear to have been strangely reluctant to become too involved.

- o In Finland, the site selection programme began many years before the foundation of Posiva in 1996 and was carried out mainly by TVO and the Geological Survey of Finland (GTK); and again the way in which the programme operated involved far more direct contact with municipalities than has been the case in the UK. The work took place over many years, beginning in 1985, following the lead given by the research programme by SKB in Sweden. It took from 1985 to 1993 eventually to come up with short-listed sites and then start site investigations – although the process was delayed considerably by the intervention of a government ministry who was concerned that TVO should not unduly restrict the potential number of sites using only their own criteria, but publish the criteria being applied so that people had the opportunity to comment on them. These criteria allowed the parts of the country that were considered to be of interest for potential investigation to be defined. Many of these criteria were geological and hydrogeological in nature (but also deliberately somewhat general in their design and application), but they also included other criteria such as population density, the environmental impact of development, transport routes, etc. (see McEwen and Äikäs, Posiva Report 2000-15: The site selection programme for a spent fuel repository in Finland – Summary report). Site investigation programmes took place at five sites over the period from 1993 – 2000. The situation in Finland and also Sweden is rather different from that in the UK in that, particularly in the case of Finland, there is only one type of potential disposal environment, crystalline rock. This meant that no initial consideration was required as to what types of geological environment needed to be considered. Delicate discussions were also held with the areas considered most promising from a geological standpoint regarding how the then existing tax system could be modified, so that a community willing to host a repository could benefit. It was only after successfully changing the local tax system that Olkiluoto was included in the list of potential repository sites, i.e. the municipality agreed to let the site be included in the short list, originally it had not been very keen on being included, even though there were already two reactors at the site, and thus they had experience of nuclear matters. So, it can be seen that the process of site selection in Finland was far from following a simple volunteer approach.
- o In Sweden there was intensive discussion with the municipalities that volunteered to be considered, as is described in SKB Report TR-95-34: General

siting study - Siting a deep repository for spent nuclear fuel. SKB did not just 'sit back' and wait for something to happen, as has been the situation in the UK, and as can be seen from reading this report. Also they carried out studies as to what characteristics of the rock mass and the hydrogeological and hydrogeochemical environments were most important when considering suitable environments for deep disposal and prepared maps of Sweden where these were most likely to be found – although they did not prescribe precisely defined areas of Sweden as 'areas of search'. The site selection programme in Sweden began in the early 1990s and in 1992 a report was produced by McEwen & Balch for SKB entitled "Preview of processes used for the selection of radioactive waste sites". This report reviewed the site selection processes that had been carried out in the UK, France, Finland, USA and Canada and then discussed aspects of site selection, such as nimbyism, politics and pragmatism in site selection, the use of decision or MUA analysis and what was termed the 'typology of site selection techniques and socio-economic considerations'. It was concluded that there was one factor that was of overriding importance when considering whether an area/site could be considered for disposal purposes and that is the level of geological complexity. This factor has indeed played and is currently playing a major role in the site selection programmes in Sweden (see report referenced above), Finland (see McEwen and Äikäs, 2000), France (see, for example, Andra, 2005a: Dossier 2005 Argile - Evaluation of the feasibility of a geological repository in an argillaceous formation – Meuse/Haute Marne site; Andra, 2005b: Dossier 2005 Granite - Assets of granite formations for deep geological disposal. This information is presented in more detail in French in a series of Dossier and other reports – the most relevant being: Andra, 2005: Dossier argile - Évaluation de sûreté du stockage géologique; Andra, 2009: Stockage réversible profond - Proposition d'une zone d'intérêt pour la reconnaissance approfondie et de scénarios d'implantation en surface, JALON 2009 HA-MAVL.), Germany (see AkEnd report, referred to below), Japan (see NUMO, 2002: Siting Factors for the Selection of Preliminary Investigation Areas) and Switzerland (see Nagra references below). This very important subject is considered in more detail below. As part of this report to SKB, I had several meetings with Claes Thegerstom, who at the time was in charge of their site selection programme, and we discussed such matters, that were then included in SKB's site selection programme. Again, it can be seen that SKB was very far from being 'passive' in their approach to site selection and that the volunteer nature of the process was very different from that that has been applied to date in the UK.

- In Japan, although not referred to by DECC, a considerable amount of work was carried out by NUMO as part of their programme in defining which parts of the country were most geologically suitable and, in particular, in defining which geological attributes might make an area definitely unsuitable. These were enshrined in Japan's Atomic Law and relate to volcanic activity and to the presence of active faults (see, for example, NUMO, 2002: Siting Factors for the Selection of Preliminary Investigation Areas; NUMO, 2004: Evaluating Site Suitability for a HLW Repository - Scientific Background and Practical Application of NUMO's Siting Factors. Report TR-04-04).
- In all these countries and in other countries such as Switzerland (see discussion below of the current Swiss site selection programme) the geological environment for disposal is taken into account from the outset, not in the way it has been considered in the UK via a series of relatively simple screening criteria (Sub-surface exclusion criteria for

geological disposal: Joint report of the criteria proposals group (CPG) and the criteria review panel (CRP), 2007), but as a method of trying to define areas that would have sufficient geological potential. The exclusion criteria applied in the UK only define areas that are obviously unsuitable, e.g. the presence of coal resources at depth, but still leave areas in which it would be very difficult to make a convincing safety case, whilst not highlighting areas where making such a convincing safety case would be considerably easier and far more likely to succeed. Whilst it is not possible to define the 'best areas' for disposal purposes, it is perfectly possible to define areas that are most likely to possess the necessary potential. Although in the introduction to the development of these screening criteria there was discussion regarding matters such as geological and hydrogeological complexity, these were not treated with sufficient gravitas in the report, nor was the importance that needs to be attached to the necessary requirement to have sufficient, suitable host rock in which to locate a repository. It is easier to define this for sedimentary environments (e.g. the presence of a suitably thick, low permeability sedimentary formation with sufficient lateral extent, etc.) than is the case for basement rocks, where the location, orientation and separation of large fracture zones, etc. may be poorly known, especially if such rocks are not exposed. In any case, only defining areas that are unsuitable is, in itself, probably insufficient, unless it is done in a more sophisticated manner - what it is better to do is to suggest areas that are likely to have sufficient potential – even if this is done in what might be termed a rather general, non-prescriptive manner, i.e. taking an almost opposite approach to that applied by AkEnd in Germany where highly prescriptive criteria were developed. This approach does not, however, guarantee that any such area thus defined will be suitable, it just increases the likelihood to the greatest extent possible in advance of any site investigation and thus limits the likelihood of a community offering to enter the process of site selection with a geological environment that is unlikely to be suitable.

- Defining areas that are considered to have such a potential is essentially what took place in the 1980s in the UK at the beginning of Nirex's site selection programme for deep disposal of I/LLW (i.e. Chapman, McEwen and Beale, 1986: Geological environments for deep disposal of intermediate level radioactive wastes in the UK. Proceedings of International Symposium on the Siting, Design and Construction of Underground Repositories for Radioactive Wastes, IAEA, Hanover, March 1986, Paper IAEA-SM-289/37) – although the main problem here was that the site selection programme took place almost entirely in secret, at the behest of not only the nuclear industry but also the government. In fact there was little support from the various Ministries and Departments at the time – I attended meetings with the Ministry of Defence and the Department of Energy and they were very far from wanting to co-operate (at the time I worked for the BGS and was responsible for supplying all the geological information to Nirex in their site selection programme – as part of this work I attended many tens of meetings with Nirex). It was this secrecy and lack of government support that was the downfall of Nirex's site selection programme – and a similar situation was reached in France in the late 1980s which led to the preparation of the Bataille Report referred to above. Nirex received all the blame for this secrecy, however I know that the government was probably equally to blame, although this was, of course, never discussed or admitted to in public. The apparent desire not to define areas of the UK with geological potential could, therefore, be seen as an overreaction to the previous site selection programme. There is, however, a definite requirement to define geologically suitable areas of the UK before approaching communities:
 - A good, recent example of the potential problems that accrue if you do not

consider the geological environment from the outset is the situation which took place in Shepway District Council in Kent, which for a time considered the possibility of volunteering. Had they decided to continue, it would have wasted many people's time and energy as there are no potentially suitable disposal environments at depth in the area. I can state this, as I know the approximate 3D distribution of potentially suitable environments in the UK – or perhaps more correctly, I know where it would not be feasible to consider locating a deep repository and Shepway is one such area.

- o There are two RWMD reports: 'Post-Closure Performance Assessment: Example Approaches for Groundwater Modelling of Generic Environments (2008)' and an earlier report 'Identification of How Aspects of the Nirex PGRC Would Differ if Adapted to Alternative Geologies (2007)', which were prepared by Quintessa and which include six different geological environments (defined by Uisdean Michie and myself, including all the anticipated properties of the various rocks types) which are potentially suitable for the deep disposal of long-lived waste. These environments are all based on actual locations and real geological environments in the UK, although these are disguised. It would be useful if these were examined by people outside RWMD, so that the range of potential geological disposal environments in the UK could be appreciated (although the distribution of these environments in the UK is not considered in the report). The environments are (not in order of preference): (i) basement (crystalline or metasedimentary) rocks in an area of subdued relief; (ii) basement under sedimentary cover, where the sedimentary cover has a relatively high permeability; (iii) basement under sedimentary cover, where the sedimentary cover has a relatively low permeability; (iv) bedded evaporites; (v) low permeability sediments in an area of subdued relief and simple geological structure and (vi) low permeability Chalk in an area of simple structure underlain by other low permeability sediments.
- o There are three NEA reports, two of which I prepared, which discuss, sometimes in considerable detail, the importance of having a relatively simple and stable geological environment for deep disposal, in order to be able to make a convincing safety case, which in turn requires that the site investigation programme has to be able to supply the necessary information within the required uncertainty bounds – and thus the site has to be as geologically simple as possible. For example: NEA, 2010. Geoscientific information in the safety case: Main messages from the AMIGO project; NEA, 2009. Stability and buffering capacity of the geosphere for long-term isolation of radioactive waste: Application to crystalline rock. Workshop Proceedings, Manchester, UK, 13-15 November 2007; NEA, 2005. Stability and buffering capacity of the geosphere for long-term isolation of radioactive waste: Application to argillaceous media, "Clay Club" Workshop Proceedings (Braunschweig, Germany, 9-11 December 2003). It is immediately apparent from such reports and from the work carried out over many decades by waste management organisations in many countries that a geological environment that is relatively simple to investigate and that is stable over the long term (with the term 'stable' referring to all forms of stability, not just mechanical stability) is an absolute necessity for hosting a repository. The requirement to have such geological environments for deep disposal was first discussed in detail by Nagra in 1991 as part of an NEA project and later amplified as part of the development of Nagra's Opalinus Clay safety case.
- o A very useful summary of which factors are important in defining a suitable

disposal environment is provided by Nagra as part of the AMIGO project (NEA, 1994). These are defined under the title of: Favourable characteristics of the geosphere that could be cited in a safety case, using the example of the Opalinus Clay in Switzerland, as presented at the AMIGO 1 workshop (Gautschi et al. in NEA, 2004: Geological disposal: Building confidence using multiple lines of evidence. Proceedings of the First AMIGO workshop, Yverdon-les-Bains, Switzerland, June 2003.) Although these were defined in relation to the Opalinus Clay, the general principles apply to all potential disposal environments:

- Long-term geological stability, implying, for example, a low rate of uplift and erosion and an insensitivity of the geochemical and hydrogeological environment to geological and climatic changes;
 - Favourable physical, chemical and structural properties, including thickness of the host formation, low rates of groundwater movement, a geochemical environment that is beneficial in terms of radionuclide retention and protection of the engineered barrier system, and rock mechanical properties that support the feasibility of construction (although not strictly part of the safety case, engineering feasibility is relevant in that the system described in the safety case must be one that can be realised in practice);
 - Sufficient lateral extent, which gives flexibility in the location and layout of the repository;
 - Absence of, low likelihood of, or insensitivity to detrimental phenomena and perturbations, including climatic and geological events and processes, perturbations caused by the repository itself (gases, chemical alterations), and future human intrusion;
 - Explorability, or the ability to characterise the rock at any stage of the project to a degree that is adequate to support a decision to proceed (or not) to the next stage (e.g. site characterisation from the surface can provide sufficient evidence to support the decision to proceed with further characterisation from underground tunnels); and
 - Predictability, meaning that the range of possible geological evolution scenarios is sufficiently limited over the time scale for which the geological environment plays a role in the safety case (perhaps, for example, a million years).
- These requirements thus mean that only certain parts of the UK could ever host a deep repository and so a much better approach to site selection would be to define potentially suitable areas of the UK, as was done in the Nirex site selection programme. In fact the need for a suitable disposal environment is even more significant in the UK than it is in many other countries, as we have relatively large volumes of waste and a complex mix of ILW types that makes finding a suitable geological environment for disposal and developing a convincing safety case more difficult than is the case in, say, Sweden, Finland, Belgium or Switzerland. Such an approach to defining suitable areas for disposal was suggested in quite recent reports prepared by CoRWM and for NuLeAf (e.g. Blowers, Dutton, Warren, Richardson and Kemp (2006): Moving Forward; CoRWM's Proposals For Implementation, CoRWM Document 1703; Miller, Richardson, Wylie and Bond (2006): The Implementation of a National Radioactive Waste Management Programme in the UK - Implications for Local Communities and Local Authorities, Enviro Report for NuLeAF), based on considerable evidence from what

had and was taking place in other countries' disposal programmes. In order to define potentially suitable areas it would be necessary to set up a group, perhaps similar to AkEnd, that existed in Germany over a three year period, though with the remit of taking a more nuanced approach to the problem, as the final report from AkEnd was, quite rightly, criticised for being quantitatively prescriptive and for re-introducing what have been termed 'sub-system criteria' (AkEnd Report: Site Selection Procedure for Repository Sites - Recommendations of the AkEnd - Committee on a Site Selection Procedure for Repository Sites, 2002. A new group is currently being proposed in Germany to re-investigate this subject, perhaps considering a less prescriptive approach). This group, which would obviously have to include the BGS and experts on radioactive waste disposal, and there are many of these in the UK with the relevant knowledge (the majority of them are not, however, within RWMD) would set out what types of geological environment could be considered suitable for deep disposal (with the BGS then defining their distribution in the UK for different depth ranges), present their ideas and have them extensively reviewed, both nationally and internationally in a completely open manner. This could not be carried out rapidly, however, without such work I am convinced that deep disposal in the UK is very unlikely ever to take place. There would obviously be uncertainties in the definition of such 'areas of search', as outlined above, but this could easily be explained and managed. Examination of the current site selection programme in Switzerland provides extensive evidence of what it is possible to achieve in defining such areas – although in the Swiss case they have only defined potentially suitable areas of the Opalinus Clay, their preferred host rock for a deep repository, and also separate potentially suitable areas for the disposal of I/LLW (see reports: Nagra Technischer Bericht 08-03: Darlegung der Anforderungen, des Vorgehens und der Ergebnisse; Nagra Technischer Bericht 10-01: Beurteilung der geologischen Unterlagen für die provisorischen Sicherheitsanalysen in SGT Etappe 2 Klärung der Notwendigkeit ergänzender geologischer Untersuchungen; Nagra Technischer Bericht 11-01: Vorschläge zur Platzierung der Standortareale für die Oberflächenanlage der geologischen Tiefenlager sowie zu deren Erschließung. Genereller Bericht. See also (in English): Department of the Environment, Transport, Energy and Communications DETEC, 2008: Sectoral Plan for Deep Geological Repositories - Conceptual Part). Nagra Technischer Bericht 10-01, in particular, shows the very extensive analysis that has been carried out in defining potentially suitable areas of the Opalinus Clay. The 'geological siting areas' defined by Nagra for HLW and, separately, for I/LLW can be seen on Nagra's website, including the proposed locations for surface facilities. Several members of Nagra's staff have been having extensive discussions with the communities within these siting areas and the process is continuing at present. It would be useful to discuss with Nagra their experience of these matters.

- Regarding the willingness of communities to become involved in the MRWS process, the potential benefits of taking parts in the process, in accepting a site investigation programme and possibly later a repository need to be far more clearly specified, as does the absolute right of the community to withdraw from the process up to an agreed stage. Neither of these have been considered sufficiently to date – the potential benefits have been imprecisely defined, unlike the situation in France and Switzerland in particular, and the recent decision to allow communities to benefit to a much greater extent from having wind farms in their neighbourhood is a good example of how this might be achieved. Also, the absolute right to withdraw from the process has also been insufficiently well defined, as was found in the lack of clarity in this matter that was evidenced from the situation in Cumbria.

- It would also be useful to consider, particularly with reference to the situations in France and Switzerland, the legal situation regarding how a 'community' can be defined with respect to which area can benefit from hosting a repository and which administrative areas can take part in any referendum; also what the most appropriate methods are for discussing matters with communities. The cantonal law in Switzerland was changed regarding this and other important matters, following the failure to receive acceptance to develop the Wellenberg I/LLW disposal site several years ago, and the Bure URL site lies on the boundary between the départements of Meuse and Haute Marne and there have been extensive discussions regarding who can potentially benefit from any future development of the site as the Cigeo repository. A six month public debate started in France on the Cigeo project on May 1^{5th} which has been initiated and will be managed by la Commission nationale du débat public (CNDP) which was set up in 1995 with a mission to ensure public participation in decisions on environmental matters (see www.debatpublic-cigeo.org for information – all in French, although there is another website which discusses the Cigeo project in general and which is in English – www.cigeo.com).
- There is much we can learn from radioactive waste management programmes in other countries, many of which have been considerably more successful than we have been. I often find it strange that some staff in RWMD, in particular, often do not appear to have the detailed knowledge I would have expected them to have of other countries' programmes, with the result that the UK programme is not as successful as it could be. Since I started on my career in radioactive waste disposal in 1978 I have been intimately involved in all the unsuccessful UK programmes. The majority, if not all of these, often failed due to a lack of political will or to political interference. There would now appear to be the political will to succeed, but this would appear to be tempered with a desire to spend little money and effort on the site selection process. When you consider the amount of money that was effectively wasted due to the failure to develop a repository for I/LLW at Sellafield, which amounted to several hundred million pounds, it seems strange that there is so little understanding of the need to invest more money and effort in the earlier parts of the MRWS programme, as this could result in considerably greater savings over the coming decades and allow the programme to accelerate – something that the government would appear to desire.

Call for Evidence - Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

The Millom Without and Whicham Parish Councils welcome the opportunity to respond to the Government's call for evidence on the MRWS siting process and are pleased to offer the following comments:

The previous process seemed adequate (as far as it went), in that it allowed Parish Councils to make our views known, which Millom Without Parish did in some detail. In fact the final outcome closely reflected this council's view.

The main concern of this, and probably other Parish Councils, is with regard to the stance of the Borough Council in that Copeland did ignore the views of their parish councils relying instead on the result of a public opinion poll (which supported their view) - and as Whitehaven and surrounding area has over 50% of the borough's population this poll's outcome was not surprising. It is essential therefore that the process for any further consultation should ensure the views of the Parishes are taken into account and given as much weight as the views of the Borough Council.

This Parish Council was not against an underground repository, in fact there was some support for such a solution. The problem lay in the search for a site not being nation-wide and thus being unable to identify a range of possible suitable sites. Any proposal to restrict the search to any one geographical area should be strongly resisted.

The basic problem with the previous approach was that the government did no preliminary research into possible sites before asking for interest from councils. There were always going to be problems with the Copeland bid because of the geology/infrastructure of the area. It would be far better for the government itself to come up with areas within the UK that would be safe/able to take such a facility and then take an informed final decision, after consultation, in the knowledge that all the important considerations can be met by the designated area.

To summarise I would say that as a Parish Council we do not support any search which does not look at the country as a whole. Finding the best geological area is paramount. It is essential that geological and safety considerations are paramount in the search for a suitable site.

Millom Without Parish Council and the Whicham Parish Council.

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTEDREDACTED
Organisation / Company	Moresby Parish Council
Organisation Size (no. of employees)	
Organisation Type	
Job Title	REDACTEDREDACTED
Department	
Address	
Email	REDACTEDREDACTEDREDACTEDRE
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

The selection process would be improved by putting geology first rather than volunteerism. Government were told by Corwm that it was logical to first see what areas might be suitable (or at least at a preliminary stage not unsuitable) before a call for volunteer local authorities was made and then only to those L A's which at least showed some promise. The government of the day did not take that advice but any future call for volunteers must be after BGS has screened the country and probably in greater detail than was the case in West Cumbria

The geology was a key discussion point for many stakeholders. There was much confusion generated by the term "rock" which many took to mean something like granite. The discussions would have been greatly assisted by a clear draft statement of the geological requirements of the repository. These should be in terms which are independent of the rock type and are clear and unambiguous such as the volume of the formation, the permeability, distances to other features (water courses, valuable minerals....). Such a specification would ensure that when a site is under discussion, the suitability could be clearly demonstrated by reference to the specification. This has clear benefits in removing the suggestion that a site has been selected and then the geological conditions of the site then declared suitable because it is convenient and no other site has volunteered.

The expression of interest must show that there is at least reasonable public support. That was the case in West Cumbria but only because Cumbria county council did consult widely. If West Cumbria had entered the process only through expressions by the district council then local public support could not have been shown. Copeland B C did not consult at all but simply relied on a council policy which had not been disseminated in any meaningful way. Allerdale B C relied on two invitation only seminars. Central government must take some blame here because neither district council's expression followed the policy in the White paper (paragraph 6.18) and could well have been rejected. In the event the county council expression covered this failure.

There was a determined effort by the local authorities to keep economic development issues- in the case of West Cumbria Britain's Energy Coast- quite separate and to the extent that any attempt by that organisation to join the partnership was clearly going to

be rebuffed. This was a mistake and the community benefits that were to be part of the package should have been seen as one part of a massive economic development plan which should have then been shaped and discussed with the public using actual examples as to what the funds could bring. Instead there was always a backing away from both other aspects of economic development and any talk of amounts. By isolating the community benefits in this way then talk of a bribe gained ground.

There is little doubt that the over dominance by the principal authorities in the stage 3 partnership did little to foster trust that they were acting in the best interests of the community. It was quite apparent that public saw the partnership as leaning one way when in fact it did everything it could to show neutrality. It was only some way through the work that the penny began to drop with the senior councillors involved that to be both part authors of a report and then decision makers looked odd to the outside world For some the penny never did drop.

It was a mistake in West Cumbria to ignore sections 7.23 to 7.27 of the whitepaper until a last ditch effort was made in the county council cabinet to save the process from what the proposer thought was a premature end. It could have been made clear either when the expression of interest was made or at any time thereafter that certain areas were to be ruled out and a decision to participate would not be made in respect of that or those areas. In the case of West Cumbria no one should have been left in any doubt well before the final report was written that the Lake District both above and below ground was a no go area.

Finally, trust was always an important issue. One of the principles of the process was the right of withdrawal. However, the absence of alternative volunteers and the current location of the high level waste meant that there was a perception that there was an inevitability of the outcome. If there was an attempt to withdraw at a later stage, it would be too late and the repository would be imposed regardless. In this light, it was widely suggested during the consultation discussions that it would be advantageous to enshrine the right of withdrawal in legislation, and there was a strong consensus that this would be beneficial. The refusal to take up this suggestion seriously undermined the trust in the process.

In short it has to be:

- a) geology before volunteerism**
- b) a clear geological specification**
- c) much closer adherence to 6.18 both by the local authority and central government**
- d) better understanding by the residents of the area that a GDF is but part of a huge economic development scheme with extensive benefits**
- e) clear independent leadership of any group however formed that undertakes the work in moving to a decision to participate**
- f) acceptance that even when an expression of interest is made for a certain area it does not follow that a decision to participate need be made for the whole of that area.**
- g) enshrine the right of withdrawal in legislation**

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Voluntarism and partnership are the cornerstones of the current MRWS process and should continue to be cornerstones of any revised process.

If the MRWS process is to be developed further the key aims should be to facilitate the engagement of the widest possible range of communities and to provide communities with the information they require to make an informed decision as to whether or not to register an Expression of Interest.

- **What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?**

Within the current MRWS process the first stage at which a community can formally engage with the site selection process is to register an Expression of Interest. This is, or is perceived to be, a high hurdle to entry to engagement in the site selection process. The process might be improved by reducing this initial barrier to engagement by introducing a staged engagement process prior to registering an Expression of Interest. The earliest stage of engagement could be as simple as providing access to basic information that can be downloaded. Subsequently, and for as long as a community wishes to continue to receive information prior to registering an Expression of Interest, this might involve progressively greater engagement resulting in access to increasing quantities of objective and impartial information. This early engagement could involve public meetings, face to face discussions and briefings containing a range of level of detail relevant to the needs of the community at any given time. It would be important to provide all such information at no cost to the community to ensure that even minor expenditure does not become a barrier to engagement.

- **What do you think could be done to attract communities into the MRWS site selection process?**

Registering an Expression of Interest does not represent a commitment on behalf of a community. The next stage in the MRWS process is for a community to make a "Decision to Participate" in a siting process, although this also does not represent a commitment to host a facility. A community will require access to a greater body of information or evidence to make a Decision to Participate. At the moment the MRWS White Paper says that Government will

provide an Engagement Package to communities that have made a Decision to Participate which "... *either partly or wholly...*" meets the cost of setting up or operating a Community Siting Partnership. Thus communities must assume that that they will have to bear the whole cost of engagement prior to making a Decision to Participate and may well be required to bear at least some of the costs of engagement after a Decision to Participate has been made. From the perspective of a community the uncertainty in their cost of engaging in the process could very well be a disincentive to engage at all. This barrier would be largely removed if it was made clear that all reasonable costs of engagement would be met.

We agree that the Right of Withdrawal is an important component of the voluntarism approach. Under the current MRWS process communities have the right to withdraw from the process at any stage up to the point at which underground operations and construction are due to begin. However the process for withdrawal is not clear. Communities may be more willing to engage in the siting process if they have confidence that there is a legally robust guarantee of the ability to withdraw from the MRWS process.

- **What information do you think would help communities engage with the MRWS site selection process?**

Information requirements are likely to increase progressively as a community progresses through the MRWS process. Up to and following registration of an Expression of Interest it is likely that a community will require progressively more information. There is a wide range of information that may be required:

Information on the implications of hosting a facility – this might include a range of facts and figures which give an impression of the potential impact on the community. This might include (but would not be limited to) information on how large a facility would be, how many jobs would be created at various stages of the facility life cycle, the environmental impact of the facility (e.g. how many lorries or trains would be passing in and out of the facility at various stages of the life cycle).

A more detailed description of the process – this might include information on the steps and likely timescales in the whole process spanning site selection, licensing, construction and operation. It might also include more information on the robustness of the process underpinning the right to withdraw.

The cost of engagement - what, if any, financial support the community can rely on to support its engagement with the process.

The benefits package - the current process identifies the potential for a benefits package, but provides no information on the potential scale or scope of such a package. Providing more information on the benefits package may also encourage potential host communities to engage in the siting process. The information might include clarification of :

- the requirements for eligibility,
- the possible scope and magnitude of a benefits package,

- the timing in relation to release of funds,
- the legal robustness and
- who would control aspects of the benefits package

The experience of host communities or potential host communities in other countries – it may help communities to understand the experience of communities in other countries who have engaged with site selection processes. This might include understanding why communities such as Olkiluoto chose to compete to be selected as a host community and what information or experience was critical to their decision. It might also include understanding why other communities chose not to engage.

The scientific basis for geological disposal – any community which enters the engagement process is likely to require access to progressively more information as they progress through the MRWS process. This information may be generic in the early stages but is likely to become more site-specific as more detailed engagement progresses. It is important that communities have access to all points of view and that information is robust.

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I agree with the overall approach that has been adopted and fully agree with the approach of voluntarism and local community engagement.

Where improvements need to be made is in the area of consultation, engagement and informative sharing of accurate, honest and useful information.

I live and work in Cumbria and yet before the recent vote I received no information what so ever about the proposals. Due to the fact that I work in the nuclear industry I am already quite well informed on this issues, however if I didn't work in this industry I would have had no information what so ever on which to form an opinion.

Clear and simple information sheets need to be compiled, may be with supportive diagrams and illustrations to explain to people what is planned, how and why. It should honestly detail the pros and cons of all options but language needs to be kept in plain English and too much detail shouldn't be given as this just puts people off reading a document. This should be very widely distributed in the communities potentially involved.

A series of engagement and consultation events needs to be held, even if these might attract people with diverse views leading to some heated debate. All sides with all views need to be given the opportunity to air their views and explore the issues and how it affects them.

Real clarity is needed and needs to be shared as to what the local community benefits will be, these shouldn't be vague promises but should be clearly and accurately specified.

The main point I would change is who votes, I'm not convinced that local and county Councillors really have the breadth of knowledge of the issue or an understanding of local views to be the people who decide on such a fundamentally important topic. I think there should be a formal vote of those who live in the communities involved.

Response form

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The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	National Trust
Organisation Size (no. of employees)	REDACTEDREDACTEDREDACTED
Organisation Type	REDACTED
Job Title	REDACTEDREDACTED
Department	REDACTED
Address	REDACTEDREDACTEDREDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTEDREDACTEDREDACTED
Telephone	REDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
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As a significant land owner, conservation charity and tourism provider in Cumbria, the National Trust has a key interest in the management of radioactive waste in the county. We were directly involved in the MRWS process in Cumbria in 2012 - 13. The points below reflect our experience of that process as well as feedback from our stakeholders, including NT members, tenants and local communities.

The MRWS site selection process:

We have a number of concerns with the site selection process as it was experienced in Cumbria.

- The starting point for selecting a site for storage should be geological and environmental suitability, rather than local interest. Rather than start with a call for voluntary expressions of interest, an alternative approach involving a national scan for suitable locations would save time and public money. In the Cumbria case, there had been substantial previous research on the lack of geological feasibility from the NIREX study, yet this did not seem to be a factor in the siting process.
- There is a lack of weight given to the need to exclude certain places from site selection on the basis of grounds other than geology, for example, environmental and heritage significance. Places with national and international designations, e.g. National Parks, AONBs, World Heritage Sites, SSSI, and their settings, should be automatically excluded from consideration as a storage site.
- The National Trust owns and manages land on behalf of the nation. In most cases we hold this land inalienably. Therefore, it is likely that we would strongly object to any adverse impacts to these places or their landscape settings. National Trust land should be automatically excluded from the site selection process and we should be involved at the earliest stages of discussion where new sites are likely to fall into the settings of National Trust land.
- More powers should be given to town and parish councils that represent host communities. For example, the right to withdrawal should include these bodies.
- We would like to know what the implications are of the 'no' vote from Cumbria County Council. We assume the process to find a site continues but has Cumbria been firmly ruled out? We would hope that it has and that the process goes back to basics with a geological search before inviting new communities to express an interest.

Community engagement

- The principle of voluntarism is critical and the right of communities (via the DMBs and town/parish councils of the host community) to withdraw at any point in the selection process should be confirmed in statute before exploratory work is carried out.
- We believe the consultation process in Cumbria failed for a number of reasons:
 - Communities only realised the specific implications of the selection process very late in the process. This is largely because the likely impact of Stage 5 on Ennerdale as one of the sites for exploration only became public in the last few weeks before the Stage 4 vote rather than being identified and acknowledged much earlier in the process. The local outcry against the threat was intense and received poor handling by the MRWS Partnership which had disbanded by this point creating an information vacuum.
 - Our conversations with local stakeholders indicated a lack of trust in the decision-making process and a lack of transparency about who and how decisions were being made. That decisions were made by Cabinet members rather than full councils could be seen as reducing the voice of local communities.
 - The decision to disband the MRWS Partnership in Autumn 2012 at exactly the point when people and the media were most alive to the process and asking questions was a fundamental mistake. This allowed information to circulate in a confusing, unmanaged and alarming way (e.g about Ennerdale as a possible site under consideration).
 - From a National Trust perspective, we were surprised that representatives from local authorities did not do more to engage us in the process and when we did meet there was a lack of detailed information about the sites under consideration. We did have two meetings with some representatives of the MRWS Partnership but two local authorities failed to meet with us at all. As the Trust is a key landowner in the area with 4 million members, many of whom were writing to us about this issue, we felt this indicated poor stakeholder management.
- An example of an excellent open and proactive engagement related to an infrastructure siting process is the current consultation by National Grid on the route for new grid circuits from Moorside in Cumbria. The contrast between this process, which has informed and consulted with stakeholders and communities over a number of stages and that of the MRWS process is instructive.

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	NOEND "No Ennerdale Nuclear Dump"
Organisation Size (no. of employees)	REDACTEDREDACTED
Organisation Type	REDACTEDREDACTED
Job Title	N/A
Department	N/A
Address	
Email	REDACTEDREDACTEDREDACTEDRE
Telephone	REDACTEDREDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Q1. What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

a) Radioactive waste is a National issue and whilst volunteerism is a good thing when safety is not an issue, it is ludicrous to show preference to one site which has questions about the safety case over a site which has a better safety case but has not volunteered. This is not only wasteful in terms of the money spent on investigating a site which may turn out to be unsuitable, but may also create unnecessary economic blight and create the impression that Government is making a "U" turn. There needs to be a National geological survey to first to identify suitable sites and then the white paper developed to provide process to encourage volunteers.

b) It should be unnecessary to state, but sites of natural, historical or heritage importance, especially those that have a high level of legal protection should be excluded at an early stage. This should be clearly stated within the white paper. If the West Cumbrian MRWS had been a commercial project, a Cost/Benefit analysis would have been carried out and the Lake District National Park would have been removed from consideration, long before there was waste of public money. Local political interests ensured that whilst the government was footing the bill, the process would continue regardless of the likelihood of success. The administration was said to have "provided lots of empty suits and desk jockeys with gainful employment whilst it continued" and councillors were heard to say (within closed council meetings) that "who cares about the cost, it doesn't come out of my budget!". In these times of austerity, regardless of my opinion on the pros and cons of the project, as a taxpayer I believe that this was a criminal waste of my hard earned tax contributions.

c) Include within the White Paper, a serious commitment to forming an independent scrutiny panel to oversee any future engagement with the local community. This panel must not include people with any form of self-interest in the outcome. As was seen within the WCMRWS, the corruption of the principles contained within the original White Paper due to local politics was a huge factor in destroying any faith in the fairness of the process.

d) Ensure that, whilst the search for and subsequent construction of a Geological Disposal Facility is carried out, sufficient financial commitment is made for short term secure storage.

e) It is essential that the Government ignores the arrogance of engineers who claim to be able to design systems & structures that will last for thousands of years. The white paper must build public trust in the methodology by ensuring "retrievability" at the fore front. If disposal systems improve or problems occur or even if we find that we are able to make a profitable use of the waste in the future, it would seem ludicrous to find it was inaccessible "by design".

Q2. What do you think could be done to attract communities into the MRWS site selection process?

The Government needs to be crystal clear on the:-

Definition of a "Host community";

Community Control with regard to the "Right of Withdrawal";

Community Benefits Package;

Compensation;

The destruction of trust was a fundamental issue which was why there was no faith in the WCMRWS process. The white paper gave a clear definition of a host community "a small geographically defined area and includes the population of that area and the owners of the land. For example, it could be a town or village." Our Local Council Leader gave us an alternative opinion, which was "the administrative boundary of Copeland or Allerdale". Was it any wonder why people felt that they had no control over their destiny?

It is widely known that there is a long standing social issue whereby "the public" shut off from local political issues until they feel threatened. Knowing this, it was the job of the WCMRWS to engage the public. It significantly failed! I am ashamed to say that I was one of the apathetic masses. I knew that there was a process to find a GDF. I even attended one of the initial presentations, but did not believe that anyone in their right mind would put it in "The Park". Like most people, I assumed it was going to be along the coast, somewhere near Sellafield. That was ok and so I shut off. It was only recently that more information was made available by people who were able to read between the lines and I began to get very scared. By deductive logic, it was clear that the focus of the search could be Ennerdale. Despite pleas for information, there was no denial by the MRWS and this fear was reinforced by the refusal to exclude the National Park. Like the majority of people who feel a threat, I had to become informed very quickly. If this information was more openly available from those considered to be "Anti" and was more obscured by those of the MRWS, is it any wonder I, like many others, became disenfranchised by the MRWS process. Local opposition had less than two months to counter the multi million pound spin machine. Our groups and opposition to the industrialisation of the National Park was made up, not of lunatic fanatics, but of normal, working class people without affiliation to any political movement. A good number of our opposition group have family who work at Sellafield. We all came late to the party, but we all came scared by the corrupted MRWS Process. The white paper may well have been based on good principles but its application in West Cumbria was flawed.

Even if we had faith in our local politicians and they were not seen to be bending the facts to suit their needs, local people did not feel that they had control or the opportunity to back out of the process if they had decided to commit to it. I would remind you of what was said by the chairman of the

Committee on Radioactive Waste Management *Professor MacKerron*: "I think it is the essence of an approach that asks for community willingness to participate that up to a certain moment in the process the community has to have a right to withdraw. Beyond that moment, of course, it does not, especially after serious expenditure is incurred. If I can give you an anecdote which I think has very great weight. When we visited Sweden as a committee and we spoke to the mayor of one of the communities that was involved in a competition to be the host site for the Swedish repository, the mayor said to us, "The only way in which we could ever have said yes to this proposal was that until a certain moment we were given an absolute right to say no". In other words, he was saying had there been some sense of imposition on them they would have fought it almost irrespective of the technical merits of the proposal." (Select Committee on Trade and Industry Minutes of Evidence 19th June 2006)

As long ago as 2006 it was pointed out that "Key to finding a long term storage site will be the active engagement of local communities under the principle of 'volunteerism', bearing in mind the need to have clear definitions and processes to allow local communities to decide on the issues." (Trade & Industry Committee TISC PN45 0566)

With regard to community benefits and compensation, it is clear that whilst any package would be seen as bribery by many, it is essential that in order to build trust the Government need to be open on the level of commitment to the host community, the degree of control and who will hold the "purse strings". Perhaps more (actual) control should be devolved to Parish Councils rather than local councils who see it as income generation. Decision can be unfairly weighted due to the population size of larger towns in a borough as opposed to small rural economies that actually bear the cost of change. Rural economies have been encouraged to diversify into tourism but that tourism is a fragile and fickle thing and can be damaged by the mere suggestion of change.

As has recently been seen with the High Speed Rail Link, people have a perception that reimbursement for loss of property value or loss of earnings etc. is dealt with unfairly. It is difficult to quantify the cost, the range and the effect brought about by one particular building project. Unless it is clear from the outset how this will be dealt with, a project will not get support from the immediate community.

Q3. What information do you think would help communities engage with the MRWS site selection process?

I am not sure this comment is correctly included under this heading but the Government must ensure that TRUST is a quintessential part of any move to engage with any community to do this it needs to remove "Politics" from the process.

To create and preserve faith in a process, any decisions need to be based on science and trust. I repeat one of the answers to Q1 above. "Include a serious commitment to forming an independent scrutiny panel to oversee any future engagement with the local community within the White Paper. This panel must not include people with any form of self-interest in the outcome. As was seen within the WCMRWS, the corruption of the principles contained within the original White Paper due to local politics was a huge factor in destroying any faith in the fairness of the process."

With regard to trust there was clear public perception that DECC, in the form of Baroness Verma, was attempting to lobby (bully) our County Councillors right up to the morning of January 30th. With regard to trust in our MP, it is obvious to most that he was continually lobbying, manipulating and using the

Sellafield workers as a blunt weapon against any opposition. I understand that it is a recognised tactic to ridicule and deride credible opposition. Using labour groups to crush unorganised smaller groups of local opposition is also considered acceptable by some. However, in a small community it is divisive and will create unnecessary enmity for decades. One only has to watch the cynical use of Twitter and local media to see these tactics in action.

With regard to our Local Politicians it is widely felt that there is an incestuous relationship with nuclear industry and too much weight is given to the "cash coming out of Sellafield" as opposed to representing the actual needs and views of residents of the area. As an example of this the Ipsos MORI is repeatedly used by our Local Council Leader and our MP as an indication of the "West Cumbrian Mandate" for siting of a GDF and justification for their pushing their points of view upon an unconvinced population. There are questions about how the poll was conducted and how, in our view its information was being misrepresented.

Question 3 of the poll asked "How much do you feel you know about this search in West Cumbria for a potential site for a deep underground disposal facility for higher activity radioactive waste" The answer to this has been presented as showing that over 55% of the residents of West Cumbria know at least a little about the process. Whereas the figures indicated by number of answers to the exact MORI question actually show that 80% knew little or nothing about the search. If that poll were conducted again today, it would clearly produce a very different answer. It is also apparent that the level of opposition increased dramatically when people discovered more information about the search, particularly in those areas identified by the geologist working for MRWS. The parish of Ennerdale and Kinniside recently voted on this and 94% of the electorate wished to withdraw our area from the search.

In addition Q4. asked "From what you know at the moment, do you think that the councils should or should not take part in the search for a suitable site in the respective council areas for a deep underground disposal facility for higher activity radioactive waste" The response to this has been widely advertised as 53% of West Cumbrians being in favour of taking part in a search.

We believe that this was a serious misrepresentation, as this was a response based on little or no knowledge, when taking into account the 80% response from Question 3. We believed that these critical misrepresentations were symptomatic of the manipulative public engagement throughout the West Cumbrian process.

This was not purely something that was driven by solely Copeland Borough Council within West Cumbria. *As an example of the incorrect assertion that Allerdale B.C have a democratic mandate for proceeding, data collated last year on the views of Allerdale's 60 Parish and Town Councils showed that 34 Councils had voted against continuation to Stage 4, while only 3 had voted in favour. Of the remaining 23, six had not considered the issue, four had but could not reach a resolution, and thirteen did not reply to the survey. Councils voting against continuation covered over 53% of the entire Borough's population, while those voting in favour covered less than 3%. The total number of councillors eligible to participate in debates that resulted in a 'No' vote was 334, while those eligible to debate in votes that resulted in a 'Yes' vote was only 28. The feeling within the Parish Councils of Copeland were broadly similar.*

I am happy to discuss any of the above points or provide further detail.

1. Re-visiting CoRWM 2006

Although the First Committee on Radioactive Waste Management (CoRWM 1) recommended 'deep geological disposal' of high and intermediate level radioactive waste, its recommendation was heavily caveated. CoRWM's 2006 recommendations should therefore be re-visited by the Government.

Communities will first want to see it demonstrated that a Deep Geological Repository (DGR) will remove a burden from future generations rather than simply changing it into a different kind of burden. In other words, time is needed to ensure the scientific case is credible and to evaluate alternative approaches. There should be consultation on the detail about how an R&D programme on deep disposal might be carried forward in an open and transparent way.

As CoRWM1 recommended, it should also be clear that there will be a separate process for new build waste and consultation on how that separate process will be implemented.

This means that less emphasis would be placed on building a DGR and more on the detail of a programme of R&D into other management options which could offer an alternative to a DGR. These management options will, in any case, be required firstly while DGR options are being developed and secondly should the DGR option not prove possible.

2. The development and implementation of a stakeholder and public engagement programme.

There needs to be an open, transparent and inclusive engagement process at public and stakeholder level similar to the processes organised by CoRWM1, beginning with consultation to determine how they would like to be consulted.

Consultation should include the following:

- a. An exercise to ensure that the definition of 'community' in the context of radioactive waste disposal is robust and can stand scrutiny. Have the results peer reviewed by an appropriate body of experts.
- b. An aim to identify the issues pertaining to 'potentially affected communities' such as, for example, radiological risk; impact on house prices; economic benefits etc.
- c. Options to be presented to volunteer communities to determine and include in the process the means by which it will be demonstrated at every key decision point that the community is still in support of the process.
- d. The establishment of some ground rules on community benefit packages – it should be clear from the outset that volunteering will be more about the effort required, cost and time involved in organising a comprehensive and extensive engagement process than about community benefits in terms of the government paying for unrelated infrastructure benefit. On the other hand this needs to be seen as a positive opportunity to develop a decommissioning and legacy waste management industry with associated export

opportunities rather than a desperate attempt by an economically depressed area to gain some benefit from taking waste more prosperous areas want to get rid of.

- e. A review of the former MRWS process and which aspects were positive and should be retained, such as the staged process, the right to withdraw, partnership, volunteerism and participation etc.
- f. A full consideration of the security issues around the storage of high and intermediate level radioactive active waste, both in existing facilities and in any new facilities that will be developed in the future.

3. Oversight

The Government should establish a new oversight committee which has a wide range of expertise including social science and ethics. This committee should manage a fund to which communities, NGOs, etc can bid for support to pay for independent expertise. This should include funds that can be allocated to critical voices at a national level and some for use by volunteer communities to employ expertise.

4. Waste Issues

The open and transparent engagement process the NFLA is advocating also needs to determine the likely inventory communities will be expected to accept. If it is decided that this includes new build waste, then the consequences of that decision in terms of ethical issues, technical issues, revision of repository surface footprint, etc need to be addressed. In this context communities should also include those expected to host radioactive waste stores.

There also needs to be further discussion on the 'retrievability issue': this will fundamentally affect the design of a repository and the technical/ethical issues associated with it. The casual and disconcerting practice of mixing up disposal and storage needs to end – the two are entirely different and send wildly differing signals to potential host communities.

5. Development of the Scientific Case

Research on the **generic** uncertainty issues on the Radioactive Waste Management Directorate's (RWMD) 'issues list' needs to continue but in an open and transparent way which involves and includes critics, NGOs, nominated representatives of major stakeholder

groups and appropriate minority groups in a programme of joint fact finding .

Initially those issues, which can be addressed or partially addressed before a specific site is identified, should be identified. The resolution of generic issues should not be delayed until a specific site is identified. RWMD should be required to undertake work which attempted to resolve generic issues across both or all reference geologies.

The outcomes of this work should be as open as possible to scrutiny by members of the public within and outside the potential host community. It should ensure documents emanating from the process are written in stakeholder-friendly language (where possible) and that the language of possibility rather than certainty is used.

A parallel open and transparent, inclusive, process to examine storage options should be implemented.

6. Geology and site selection

In its implementation report CoRWM 1 proposed that areas unsuitable on scientific or other grounds should be screened out before an invitation to participate is issued. This was one of CoRWM's key proposals that have *not* been implemented in the MRWS process to date. The first step in the process must be to review the existing UK data and identify the most appropriate geological areas of the country.

This should begin with a consultation process which looks at the criteria potential host geology would have to meet. Should it, for example, be based on depth, and natural, very low permeability barriers (as proposed in Canada, Germany (Konrad) and USA (WIPP)) or should it rely on backfill and the integrity of the containers as in Scandinavia? If the former, what should be the role of packaging and backfill?

Once this process has been completed a list of those regions which have been screened out as unsuitable should be issued and a call for volunteer communities made (in a way that is compatible with the definition of community previously decided).

If and when an expression of interest is made, it should be determined by the methodology previously decided whether that expression of interest has public stakeholder confidence

and support.

NFLA Secretariat

Submitted 3rd June 2013

Nuclear Industry Association response to DECC's Call for Evidence: Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

The Nuclear Industry Association (NIA) welcomes this opportunity to respond to the Department of Energy and Climate Change's call for evidence.

NIA is the trade association and information and representative body for the civil nuclear industry in the UK. It represents around 270 companies operating in all aspects of the nuclear fuel cycle, including the current and prospective operators of the nuclear power stations, the international designers and vendors of nuclear power stations, and those engaged in decommissioning, waste management and nuclear liabilities management. Members also include nuclear equipment suppliers, engineering and construction firms, nuclear research organisations, and legal, financial and consultancy companies.

Some of these companies, particularly the generators and those involved in the fuel cycle, will be making their own submissions to this consultation. The purpose of this NIA response therefore is to make some higher level points.

Overview

The UK's nuclear power stations have been making a major contribution to the UK's energy supplies for over 50 years. Their provision of secure, large scale and reliable generation has played a major role both in meeting our growing electricity demands and in protecting our energy security – reducing dependence on imported energy and insulating the UK from fuel supply interruptions overseas. They have also made a major contribution to reducing our carbon emissions.

However in generating electricity nuclear stations also produce relatively small quantities of radioactive waste, including some higher-activity wastes that will ultimately need to be disposed of in a geological disposal facility (GDF). Pending the availability of a GDF these wastes, and those from any new stations, can continue to be stored in safe and secure interim storage facilities either at the stations themselves or at Sellafield.



Whilst interim storage is potentially a long term option, we believe public confidence in the MRWS process would be enhanced by continuing progress on the GDF issue. We therefore welcome the Government's call for evidence.

We agree with Government that geological disposal is the appropriate policy for the long term safe and secure management of higher activity waste in the UK. The Government's independent advisers CoRWM were clear that it was the right mechanism and it is the solution being adopted internationally.

Good progress is being made overseas. Repository sites have already been identified, with local support, in Sweden (Oskarshamn and Osthhammar) and Finland (Olkiluoto). Construction is well underway on the latter. In France plans for the Cigeo facility have reached the stage of final public consultation.

Experience in those countries that have made good progress with their repositories demonstrates that the right process and effective community engagement can lead to broader public acceptance. We therefore agree that volunteerism is the preferred approach.

Against this background we agree that the current site selection process should be reviewed in the light of overseas experience to see if improvements can be made.

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

Communities will only participate in the site selection process if they have confidence that they will be effectively engaged and involved in the process. Any concerns about the key issues - including the potential risks and benefits - must be properly considered and resolved.

The engagement vehicles set out in the MRWS White Paper - including the setting up of the West Cumbria Managing Radioactive Waste Safely Partnership (WCMRWSP) – were sensible. However we believe that public understanding of the key issues would be greatly improved if a specific advocate was identified to make the wider ranging case for the repository.

In the case of Cumbria such an advocate would have been able to take the lead in responding to the very public criticism that was made of the GDF proposals on safety and geological grounds following publication of the WCMRWSP report. In this context independent and well regarded expert bodies – such as the British Geological Survey, Health Protection Agency, Office for Nuclear Regulation and the Environment Agency - could also make an important contribution in putting potentially alarmist claims into perspective. CoRWM, as a group of independent experts appointed by Government, could also have an important role.

We believe that the NDA, as the repository developer, should undertake the GDF advocacy role and should be under an obligation to communicate not just with the community, stakeholders and the public, but also the local and national media.

What do you think could be done to attract communities into the MRWS site selection process?

We agree that there should continue to be an open process for volunteer communities.

However we believe that new communities are more likely to be attracted to the MRWS process if they are approached by a GDF advocate – as set out above - with a clear narrative explaining the case for participation.

Again we believe the NDA are in the best position to undertake the advocate role, and recommend that they embark on a drive to identify new communities as soon as possible. There should be a proactive communications programme, and they should look at novel and creative means of explaining the facts. Overseas experience from places such as Sweden may prove useful in developing a comprehensive and innovative communication strategy.

We would suggest that they should start the dialogue with existing nuclear communities, who will already have a clearer understanding of the nuclear issue and the associated benefits.

What information do you think would help communities engage with the MRWS site selection process?

Before deciding to participate communities need to appreciate the terms and conditions of the MRWS process, particularly their right to withdraw. They also need to feel they have a good grip of the potential risks associated with the construction and operation of a GDF, including the criteria and tests used to assess geological suitability; safety; and roles and accountabilities, as well as the potential benefits for the local community of hosting a GDF.

In relation to the latter it would be helpful if NDA could provide a much clearer picture of the potential socio-economic benefits associated with the construction of such a large scale national infrastructure project. Government should also provide as much detail as possible at this stage on the community benefits package available to a potential host community, making clear that at least some of this would be available from the moment a Community decided to become involved in the process. We believe that spelling out these positive aspects of the case would greatly assist informed decision making.

NIA 10/06/13

Response form

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The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	Nuclear Institute (NI)
Organisation Size (no. of employees)	REDACTEDREDACTEDREDACTEDRE
Organisation Type	REDACTEDREDACTEDREDACTEDR
Job Title	REDACTEDREDACTEDREDACTED
Department	
Address	REDACTEDREDACTEDREDACTEDRE DACTEDREDACTEDREDACTEDREDA CTEDREDACTEDREDACTEDREDACT EDREDACTEDREDACTEDREDACTED
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Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

The Nuclear Institute (NI) is a Professional Institution, and leading learned organisation in the nuclear sector. It welcomes the opportunity to respond to this call for evidence on the GDF site selection process.

The NI would welcome the opportunity to support DECC in taking the process forward. We have supported Government agencies previously in shaping and taking forward consultation processes, in addition to the advice we are able to provide as a respondent. This has included hosting national and regional seminars and workshops on the topic of interest. Because we draw our membership from across the whole spectrum of the nuclear sector, including regulators and employees of other Government agencies (such as the Royal Navy), staff in the licensee companies and other private sector companies, and researchers in academia and elsewhere, we are seen to be independent of any particular sectoral interest.

Further details on the NI are given below. (The Nuclear Institute(NI) – Who we are).

Q1 – What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

A1 – For each response the NI sets out a set of summary points to consider at the beginning. The body of the response to each question then develops the point citing supporting evidence as appropriate.

1. The safety aspects of the GDF and the role of ONR should be more visible in the early stages of the process.
2. Reduce the number of process stages, with first 'right of withdrawal' at the end of current stage 4
3. Clarify definition of host community, noting there may be two (the surface facilities could be several miles away from the underground facilities)
4. Clarify definition of Decision-Making body
5. Much greater commitment to enhance the well being of the potential host community, as part of an integrated development plan.
6. The new White Paper should be more open to the use of Deep Bore Holes for HLW, spent fuel and Pu (contaminated) than Cmd 7386

7. Overall, the whole process and white paper are too vague, from the roles of decision making bodies, definition of host community, scale and scope of benefits, timescales, partnerships role and composition and more. Greater information, precision and clarity are needed.

1. The safety aspects of the GDF and the role of ONR should be more visible in the early stages of the process.

Safety should be given greater prominence in the new White Paper. Cmd 7386 presented the situation with respect to regulation and planning in Chapter 5 but could have said much more about how safety is achieved after the repository is closed. In particular, it could have explained how there is rock and underground water that is stable for periods that are far longer than the period for which the waste is hazardous and that these conditions exist in the UK.

The NI recognises that in England the Environment Agency (EA) is the lead regulator for the disposal of radioactive waste and we were reassured by the rigour with which they undertook this role during the process in Cumbria.

However the NI does not believe that the role and responsibilities of the Office of Nuclear Regulation, (ONR, previously NII) were sufficiently clearly visible in the first stages of the process. The ONR has a wealth of experience of the regulation of sites licensed under the Nuclear Installations Act that should be applied to the GDF project. There are three reasons why additional visibility of the ONR involvement would have been helpful:

- a. Underpinning documentation (Document 36.1 Regulators' roles and processes in the implementation of MWRS) shows that the GDF will be subject to the requirements of the Nuclear Installations Act and therefore subject to licensing and regulation by the ONR. The public consultation pack provided for the process in Cumbria indicated a low awareness of the ONR role and it required significant research to locate the statement that supported the intent to license the future GDF.
- b. The proposals for the GDF indicate that the waste will, in principle, be retrievable. In this event it is likely that the waste will be retrieved to ONR licensed sites for treatment, storage or repacking in which case the ONR are a significant regulator in the process.
- c. The ONR have developed a robust methodology for progressive permissioning of facilities on Nuclear Licensed Sites. This ensures that the safety case is developed in parallel with the design and that work does not progress, nor significant expenditure committed, unless it can be demonstrated that it is compliant with pre-agreed safety principles and likely to lead to a licensable outcome. (The NI strongly advocates the discipline associated with this approach.)

While the NI acknowledge that ONR were involved in the process in Cumbria, the rigour of their licensing process and how it would be applied to the possible development of the GDF did not really come across in the various public events that local NI members attended.

2. Reduce the number of process stages, with first 'right of withdrawal' at the end of current stage 4

The process would be more efficient if Stages 3 and 4 were combined. This would mean that a Decision about Participation would be informed by the desk based studies of the geology and hydrogeology of the area. The Cumbrian process was hampered by a lack of this

information.

The stages in Cmd 7386 are generally appropriate but there should be an acknowledgement that all decisions in the early stages, including making an Expression of Interest, are major political decisions and where information is available and requested, it should be made available even if technically it is only relevant to a later stage.

3. Clarify the definition of host community, noting there may be two (the surface facilities could be several miles away from the underground facilities)

Cmd 7386 spoke in terms of an area where the repository could be constructed. There are two sets of facilities: namely those on the surface and those in the host rock and these may be several miles apart. Thus, there may be two potential host communities.

4. Clarify definition of Decision-Making body

The approach described in Chapter 6 of Cmd 7386, where a potential host community volunteers, is unlikely to represent reality. In practice, it is more likely that a local authority volunteers and a potential host community objects. The relative role of the Decision Making Body (the Local Authority) and the relevant Parish Councils (potential Host Community) need to be much clearer. This ambiguity cost the West Cumbria MRWS Partnership a considerable amount of time.

This issue was complicated in Cumbria by there being two potential decision-making bodies, at Borough Council level, and at County Council level. In principle, there should be clarity that there is one only Decision Making Body for a particular area. The Government should clarify whether this should be the same as the Local Planning Authority for each area (given that the GDF and associated community benefits would require consideration in the relevant Local Plan), or on some other basis.

5. Much greater commitment to enhance the well being of the potential host community, as part of an integrated development plan.

There should be a much greater commitment to enhance the well being of the potential host community than there was in Cmd 7386. Any host should be able to expect the repository to be part of an integrated development plan for the area that is an enhancement of current plans over and above the inevitable activities that will result directly from the repository.

One approach that could be considered would be at an early stage of the process to effectively develop an 'alternate' Local Plan, incorporating GDF stages, and the associated 'community benefits package' as an enhanced integral Local Plan.

The NI recommends that, as part of the community benefits package, the Government should include investment to up-skill the local workforce such that it is well placed to win quality jobs on the project and the development plans which would be part of the overall package.

There should also be clear plans to mitigate any perceived or actual disadvantages of hosting

the repository.

6. The new White Paper should be more open to the use of Deep Bore Holes for HLW, spent fuel and Pu (contaminated) than Cmd 7386

The White Paper should identify the functional requirements of the repository but should not close off potential design options that may deliver those functional requirements. While a repository can be safely constructed, operated and closed using the approaches identified in Cmd 7386, there are alternatives which may lead to a more effective approach to the management of used fuel; in particular the worst case prediction for geological disposal of used reactor fuel, assuming a once through fuel cycle and only thermal reactors, resulted in a very large (and uncertain) footprint area. This maximum area (and the associated uncertainty) was a difficult issue for the potential host communities in West Cumbria to accept.

Q2 – What do you think could be done to attract communities into the MRWS site selection process?

A2 – Summary of points in NI response:

1. The Government should consider pro-active marketing of the GDF plus community benefits package offering to local authorities.
 2. The Government should consider designing and offering a clear contract between itself and interested local bodies
-
1. The Government should consider pro-active marketing of the GDF plus community benefits package offering to local authorities.

'Pure' voluntarism would suggest the Government awaits initial expressions of interest from potential host communities and then proceeds along the process defined in the White Paper. However, the NI would suggest to engage with other communities may well require a more pro-active approach to inform Local Authorities (initially as a Group, perhaps with facilitating agencies such as provided by a University or by NuLEAF). One option would be to organise this in terms of workshops covering the key issues, such as the status quo ('do nothing'), the need for a repository nationally and the alternative options that have been and could be considered. It would also promote the 'overall package' in terms of the type of community benefits packages that may accompany the GDF. Part of this up-front process would be to offer to carry out a similar workshop approach for a specific Local Authority involving local representatives of potential host communities, where the authority has expressed interest in principle (but without commitment to participate).

Care would clearly need to be taken to ensure that the principle of voluntarism is not perceived as being undermined by such a pro-active approach, either by being openly inclusive, or if not, giving clear reasons why certain communities have not been included (eg major urban areas).

An approach which the NI understands was done successfully in Finland, Sweden and Belgium was to approach communities, particularly nuclear communities and those with simple geology. If the Government considers this form of approach, we recommend that the Belgian model is particularly considered, in which the approach, the social interaction and the

management of this part of the process was done by a University. This might have greater potential to engage all the potential decision makers, and to reduce the likelihood of an early exit from the process.

2. The Government should consider designing and offering a clear contract between itself and interested local bodies

Such a contract, including greater information on benefits, and a legally binding right to withdraw at particular stages would in the NI's view increase the likelihood of potential host communities or local authorities embarking on the process.

Q3 – What information do you think would help communities engage with the MRWS site selection process?

A3 – Summary of points in NI response:

Information required up-front covering as much as is practicable all stages of the process:

1. National need for a repository
2. Host Community benefits
3. Clear plans to mitigate any actual or perceived disadvantages of hosting the GDF.
4. The risk associated with hosting a repository expressed in 'everyday' terms for comparison (eg being struck by lightning)
5. Transport of waste from interim storage sites to the GDF.
6. The supporting R&D programmes being undertaken to improve on the current state of knowledge.

1. The national need for a repository

This would include:

- a. The current arrangements, although satisfactorily safe, are 'interim', are not a long term solution in themselves, and involve continuing expenditure just to maintain the status quo.
- b. The need for a repository for UK plc. Is not going to 'go away' 'somewhere else'. It will be incumbent on Government to continue the process until the country has found a way forward. It may take several attempts, and some time (in Sweden it took 15 years to establish a benefits package and a host community that 'matched'), but it will happen.

2. Host Community Benefits

During the Cumbrian process, a considerable amount of work was done to develop principles that would govern the development of Community benefits in Stage 4 and we understand there were discussions between DECC and HM Treasury. This and more work should be used for the new White Paper to be much clearer than Cmd 7386 on what Community benefits a host

might expect.

3. Clear plans to mitigate any actual or perceived disadvantages of hosting the GDF.

There should be a comprehensive evaluation of the disadvantages that a host community may experience and a clear plan for mitigating those disadvantages. This was part of the Cumbrian process and a much more detailed plan has been developed for example for the Andra repository for HLW and ILW in France.

This may extend wider than the locality of the GDF itself (which itself may involve surface and sub-surface facilities several miles apart). For example, there may well be transport facilities that would need to connect with the GDF to enable transport of waste packages from interim storage sites. Any routing of say a railway spur should include consideration for compensating businesses and individuals along the route who would be adversely affected (the proposed compensation scheme for those on the HS2 route is a possible benchmark).

4. The risk associated with hosting a repository expressed in 'everyday' terms for comparison (eg being struck by lightning)

This should include direct risk comparators, such as the risk of being struck by lightning, but also the timescale for any risk compared with other risks, for example the risk from contaminated water after several ice ages affecting the UK in which habitation in the UK would have been wiped out.

5. Transport of waste from interim storage sites to the GDF

GDF host communities and decision making bodies need to understand the need for transportation of the waste across the UK to wherever the GDF site is from wherever it is being stored on an interim basis, by whatever means and the hazards posed by the waste in its current form and how these hazards will increase / reduce depending on how the waste is treated / disposed of.

Currently, a large part of the waste that would eventually be placed in the GDF is in West Cumbria, mainly at Sellafield, but a substantial minority of the total inventory is currently at a multiplicity of interim storage facilities across the UK. The total transportation requirement will depend on where the GDF is sited, and likely to be greater the greater its distance from Sellafield. Although this could infer that the risk involved in transportation is greater this would need to be put into an appropriate context. Transportation of nuclear materials has been going on safely for many years, and is subject to national and international (IAEA) requirements.

6. The supporting R&D programmes being undertaken to improve the current state of knowledge.

The NI thinks the main improvements would need to be in providing more information on the R&D behind the GDF concept to allow for a more informed consideration by potential host communities and decision making bodies. Information that would be beneficial would be (not

an exhaustive list):

- Show the overall UK ground conditions (from current data) to show different rock types and how the GDF could be built at some of these locations (i.e. if there is no clay, you may have 'beefier' engineered barriers)
- Multi barrier approach and approach to radionuclide modeling in groundwater including the effects of different host rock on the model parameters (i.e. it can be built in different locations with different host rock, just may need some more engineering on certain barriers i.e. backfill, canister etc.)
- The success criteria for stage 4 onwards. How would communities know how to interpret the testing results? How much effort would you put into finding a suitable site if initial investigations were not very promising?
- Explain that the surface facility could be built at a different site to the underground vaults
- Community benefits for stage 4 onwards. Would local supply chain companies be used to carry out ground testing etc? At what point will regulatory bodies be involved to assess the proposals for the GDF? This could provide some confidence to communities if the regulators approve the results of the ground investigations.
- The actual process in terms of stakeholder involvement in Cumbria is hard to improve unless the criticisms faced by Cumbria can be addressed going forwards, i.e. the benefits are quantified before a host community decides to proceed to stage 5 onwards, or a solid Government declaration on the right to withdraw further down the line is given. In terms of reaching people...MRWS did a good job with the surveys / roadshows / interviews etc.

Other Issues covered by NI Response:

The project needs an active promoter and information provider.

The NI believes that the process in West Cumbria suffered from a lack of an effective project promoter. NDA RWMD did not fulfil this role, and this led to definite lack of balance in the information being made available through the process.

We can understand that the Government did not want a repeat of the shortcomings with the approach led by Nirex in the mid 1990s, but this went rather too far in the other direction. This gave a perception, whether or not it was merited, that the Government wasn't really interested in supporting the project development.

The NI believes that the Government agency (in this case the NDA RWMD) needs to be much more pro-actively engaged in the process, and that suitable governance structures (say involving independent advisory or steering groups) could be put in place to moderate the approach taken as project developer.



**MANAGING RADIOACTIVE WASTE SAFELY: A REVIEW OF THE LESSONS
LEARNED FROM THE FIRST ATTEMPT AT IMPLEMENTATION AND
RECOMMENDATIONS FOR A MORE SUCCESSFUL SECOND ATTEMPT**

**Nuclear Waste Advisory Associates
June 2013**



Primary authors	Reviewers	Signed off	Authorised release for	Date
REDACTED	REDACTED	REDACTED	REDACTED	REDACTED

Historical Note

The issue of how to deal with higher activity nuclear wastes was largely ignored in the early days of the development of nuclear power and its associated industry, nuclear weapons. (1) So eager was the UK to become a nuclear weapons power and so pressing did it ministers feel the need for nuclear weapons for its security in an uncertain post-WW2 world that the resulting radioactive waste mess still haunts us today.

The radioactive waste management 'policy' pursued by the UK and other nuclear power states throughout the 1950s to the 1980s was for sea disposal of both liquid and solid wastes. This cavalier attitude to waste 'management' was stopped in 1983 by environmental campaigners and the political action taken by the London Dumping Convention. Although it is not possible to assess how much – if any – higher activity wastes were dumped at sea during this period, it is likely that some reactor components, if not entire reactors (from submarines, mostly), were dumped at a variety of marine sites off the UK coast, the most notable of which was the 'official dumping site' marked on marine charts 600 miles southwest of Land's End in the Atlantic, and in the Hurd Deep off the Channel Islands.

The statement in the sixth report of the Royal Commission on Environmental Pollution in 1976 (the 'Flowers Report') that there should be no expansion of nuclear power in the UK until the problems of waste management had been solved has hung like a millstone around the neck of successive governments, as their enthusiasm for nuclear power has waned then waxed and as the pressure to satisfy their climate change obligations has increased. As the then New Labour government contemplated the consequences of its brief affair with renewables and toyed with the idea of putting nuclear back on the agenda, it realised that the 'Flowers' issue had to be addressed and decided to appoint a committee to examine the management options for higher activity waste: the Committee on Radioactive Waste Management (CoRWM) was formed in 2003. It succeeded the Radioactive Waste Management Advisory Committee (RWMAC), which had a wider mission to examine all aspects of radioactive wastes, producing many reports between 1978 and 2004 on many different aspects of UK Radioactive Waste management. These reports and supporting documentation are all available from the UK/EU National Archive website (<http://collections.europarchive.org/tna/20080727101330/defra.gov.uk/rwmac/>).

CoRWM reported in 2006. It recommended disposal but this recommendation was heavily qualified. Predictably, the government took the report as its 'get-out-of-jail-free' card in that it saw the report as a definitive answer to Flowers achieved after three years of examination by a committee which included a broad and balanced membership including both nuclear industry experts as well as anti-nuclear campaigners. Equally predictably, government ignored the nuances and caveats in the report- which its authors had clearly advocated should be implemented as an integrated package of recommendations and glossed over the less convenient recommendations. What government wrongly saw in the CoRWM report was a green light for it to pursue its new nuclear build programme.

- (1) Details set out in chapter 2 of *The International Politics of Nuclear Waste* Andrew Blowers, David Lowry & Barry D. Solomon, Macmillan Press 1991

The genesis of the problems with MRWS

The process which CoRWM followed was itself criticised at the time. It assumed, for instance, that disposal ‘removed a burden from future generations’ and, hence, this attribute of disposal scored heavily in the multi-attribute decision analysis approach the committee took in determining its recommendations. Some felt that such weight given to a consequence of disposal which is at best questionable and at worst entirely wrong gave rise to a skewing of the process. In addition some felt that scoring disposal in this way tended to over-emphasise reducing the burden of cost, risk and effort on future generations despite the fact that there is no certainty that it will prove effective in doing so.

While these concerns about how CoRWM arrived at its primary recommendation were mostly lost by the unanimity of support for the report as a whole among committee members, those which arose from government’s handling of the report provoked concern among some members themselves, stakeholders and observers. With a year to go before CoRWM reported, government had introduced the idea that new nuclear build feature in a future electricity mix. The then Prime Minister Tony Blair’s statement to the CBI in May 2006 that ‘nuclear was back on the agenda with a vengeance’ subsequently compromised CoRWM’s recommendations, and begged two questions: one would new build spent fuel be disposed of in a national repository which CoRWM had recommended for legacy waste only and, two, more importantly, had the CoRWM process provided an elaborate and convenient means of re-introducing a technology which had hitherto been eschewed by the Government by conveniently ‘removing’ the historical ‘Flowers’ prerequisite.

The forgotten recommendations in the CoRWM report

The CoRWM recommendations were based on the findings of a three year programme of comprehensive public and stakeholder engagement which was conducted through intensive and extensive strands, engaging informed stakeholders as well as members of the public in a process which was unprecedented in its scope and reach. In short, the recommendations were based on what stakeholders and the public were likely to expect when implementing a repository programme.

CoRWM made fifteen recommendations which were interdependent. We highlight here those which, in the opinion of NWAA, have been largely ignored. NWAA contends that the systematic ignoring of the totality of the CoRWM recommendations form the basis of the reduction in confidence in the process as it has been pursued between 2006 and the decision by Cumbria County Council to withdraw from the process in 2013.

Recommendation 1: *Within the present state of knowledge, CoRWM considers geological disposal to be the best available approach for the long-term management of all the material categorised as waste in the CoRWM inventory when compared with the risks associated with other methods of management. The aim should be to progress to disposal as soon as practicable, consistent with developing and maintaining public and stakeholder confidence.*

The aspects of this recommendation which give cause for concern result from the government's interpretation:

- We consider that the government interpreted this recommendation as a 'best option' rather than 'the best available approach' when compared to other methods which was the more cautious and deliberate phrase of CoRWM.
- The government ignored the requirement, implicit in the 'current state of knowledge' term, to recognise and convey *publicly* that disposal was and remains far from a proven technology and that;
- The government has ignored the fact that CoRWM recommended a process in which stakeholders and the public had confidence and has manifestly failed to continue the high level of engagement, openness and transparency required to ensure continuance of and a building on that confidence.

Recommendation 2: *A robust programme of interim storage must play an integral part in the long-term management strategy. The uncertainties surrounding the implementation of geological disposal, including social and ethical concerns, lead CoRWM to recommend a continued commitment to the safe and secure management of wastes that is robust against the risk of delay or failure in the repository programme.*

Due regard should be paid to:

- i. reviewing and ensuring security, particularly against terrorist attacks*
- ii. ensuring the longevity of the stores themselves*
- iii. prompt immobilisation of waste leading to passively safe waste forms*
- iv. minimising the need for repackaging of the wastes*
- v. the implications for transport of wastes.*

The government's disregard for this recommendation underscores its focus on the exclusion of any consideration that disposal could prove to be unimplementable, and that, as far as it is concerned, disposal is the only option on the table. Storage and the provision of facilities for long to perhaps indefinite storage of radioactive waste has been not been tackled in the way intended by CoRWM as an integral and necessary element of long term radioactive waste management, regardless of the progress – or lack of it – towards a GDF. Facilities at Sellafield remain in critical condition, existing spent fuel facilities at operational plants – often inadequate and vulnerable - are still considered 'interim' and are perhaps of greatest concern in respect of vulnerability to terrorism being far more vulnerable than the reactor cores themselves, which are typically contained

within a robust biological shield. Enhanced storage of legacy wastes, and their associated costs, have taken a back seat purely because government sees disposal as an end point for long term waste management, which will eventually - and its promoters believe, inevitably - be achieved at some point in the not-too-distant future to the exclusion of all other possibilities. To bolster this notion, it has adopted the language of certainty and enablement rather than of assessment ('when' rather than 'if') and, in the face of criticism over the lack of demonstrable plans, successive energy ministers have asserted with no justification at all that effective arrangements for new build spent fuel management will exist.

Recommendation 4: There should be a commitment to an intensified programme of research and development into the long-term safety of geological disposal aimed at reducing uncertainties at generic and site-specific levels, as well as into improved means for storing wastes in the longer term.

It is true that RWMD has developed a comprehensive programme of research and development into reducing the uncertainties of disposal. Its portfolio of technical and scientific uncertainties (ethical issues are still to be identified) now embraces a reported 900 issues, including 100 identified by NWAA and around which it is discussing with RWMD how their resolution can be managed. However, the process by which these issues are being progressed lacks the sort of accessibility and ability to scrutinise as would be ideal and, moreover, the corollary of the CoRWM recommendation regarding R and D into storage appears to have been ignored altogether.

Recommendation 5: The commitment to ensuring flexibility in decision making should leave open the possibility that other long-term management options (for example, borehole disposal) could emerge as practical alternatives. Developments in alternative management options should be actively pursued through monitoring of and/or participation in national or international R&D programmes.

To our knowledge, there has been no particularly active pursuit of alternatives to disposal through monitoring or participation in national or international R and D programmes, although DECC and the NDA do have a watching brief on activities of the Nuclear Energy Agency (of which the UK is not a member) and the International Atomic Energy Agency (of which it is a member).

Recommendation 6: At the time of inviting host communities to participate in the implementation process, the inventory of material destined for disposal must be clearly defined. Any substantive increase to this inventory (for example creation of waste from a new programme of nuclear power stations, or receipt of waste from overseas) would require an additional step in the negotiation process with host communities to allow them to take a decision to accept or reject any additional waste.

Associated with this recommendation, CoRWM added the following statement at the end of the section in the report dealing with recommendations:

CoRWM takes no position on the desirability or otherwise of nuclear new build. We believe that future decisions on new build should be subject to their own assessment process, including consideration of waste. The public assessment process that should apply to any future new build proposals should build on the CoRWM process, and will need to consider a range of issues including the social, political and ethical issues of a deliberate decision to create new nuclear wastes.

The question of inventory is inextricably tied into the decision of government to interpret CoRWM's recommendation for disposal as a fit and proper solution for new build waste as well as the 500,000 cubic metres of legacy waste which was the sole focus of CoRWM's work. CoRWM disputed this at the time and the strong and unanimous feeling among the committee members was that new build wastes generate their own unique and distinct issues, both ethically and technically, when compared to legacy wastes in that they do not form part of an unavoidable inventory since they are not yet created, and the "high burn-up" of EPR and AP 1000 fuel presents unprecedented technical challenges. In addition, it is only right and proper that potential host communities are told well in advance what their possible volunteer status requires them to accept in terms of material, radiological burden, technical challenges, and the permanent above ground storage facilities to hold the retrieved radioactive waste inventory if its retrieval is required for environmental or safety reasons. Government has avoided this issue and has assumed that communities will accept that 'radioactive waste' is 'radioactive waste' and that the inventory is of a secondary consideration. This is an erroneous assumption.

Recommendation 9: There should be continuing public and stakeholder engagement, which will be essential to build trust and confidence in the proposed long-term management approach, including siting of facilities.

CoRWM's engagement programme was extensive and prolonged and managed to generate, as was required by its terms of reference, public and stakeholder confidence in the process. That confidence has haemorrhaged since 2006. There was no programme of public and stakeholder engagement at a national and regional level. At the local level in Cumbria, participation could be claimed to have been quite extensive and the conclusions of the Partnership report well founded. However, decision-making was effectively left to three executives of the three councils which had expressed an interest in participating in the process. The relationship to broader public and stakeholder engagement and involvement through the partnership and decision-making by a small elite of council executives rendered the process weak and remote from 'the community'.. Unless the level of engagement is kept at a perpetually high level, is comprehensively and informatively prosecuted and unless government is prepared to commit the hefty resources required to underpin that level of engagement, a negative outcome is inevitable.

The recommendations which follow recommendation 9 deal primarily with the community and the relationship between the parties involved in the partnership. The most important areas which have not been acknowledged sufficiently since the CoRWM report are those of the definition of 'community', how the 'affected communities' can be

identified, a clear articulation of how community packages could benefit those recipient and affected communities and, most importantly, who makes decisions on behalf of the community and with what evidence of the authority given to those decision makers by members of the community.

Without attention to these basic issues, the framework for the successful introduction and prosecution of a repository programme is unlikely as it creates the impression that the programme is one which can be likened to a sophisticated ‘imposition’ process in which the majority do not have a say and that benefits, should there be any, will accrue to people other than those who will bear the greatest burden of a repository.

What follows is a NWAA ‘optimum’ process for the implementation of a MRWS process which would give the government and its agencies the best chance of implementing the volunteer process in pursuit of its radioactive waste management policy based on disposal.

MRWS PHASE 1

a. Re-visiting CoRWM 2006 recommendations

1. Consult on the detail about how an R&D programme on deep disposal might be carried forward in an open and transparent way.
2. Geological disposal has been emphasised at the expense of moving forward simultaneously on other integral elements of CoRWM1’s recommended programme including the need for robust interim storage. Recent events in Cumbria suggest that the emphasis on achieving disposal as quickly as possible has not been consistent with developing and maintaining public and stakeholder confidence.
3. Clarify that there will be a separate process for new build waste and consult on how that will be implemented.
4. Consult on the detail of a programme of R&D into other management options which could offer an alternative to a DGR, but will also be necessary, firstly while DGR options are being developed and secondly should the DGR option not prove possible.

b. The development and implementation of a stakeholder and public engagement programme to:

5. Plan and agree an open, transparent and inclusive engagement process at public and stakeholder level which has both extensive and intensive elements: this in itself should involve consultation with the public and stakeholders to determine how they would like to be consulted on such an issue.
6. Have the process peer reviewed by professional engagement practitioners and amended as appropriate

7. Carry out a public consultation exercise to ensure that the definition of ‘community’ in the context of radioactive waste disposal is robust and can stand scrutiny. Have the results peer reviewed by an appropriate body of experts.
8. Identify the issues pertaining to ‘potentially affected communities’ as a concept and include conditions such as, for example, radiological risk; impact on house prices; economic benefits.)
9. Consult on options to be presented to volunteer communities to determine and include in the process the means by which it will be demonstrated at every point at which key decisions are made that the community is still in support of the process.
10. Consult on the establishment of some ground rules on community benefit packages – it should be clear from the outset that volunteering will be more about the effort required, cost and time involved in organising a comprehensive and extensive engagement process than about community benefits in terms of the government paying for unrelated infrastructure benefit. On the other hand this needs to be seen as a positive opportunity to develop a decommissioning and legacy waste management industry with associated export opportunities rather than a desperate attempt by an economically depressed area to gain some benefit from taking waste more prosperous areas want to get rid of. There is a distinction to be made between support for community engagement and benefits as compensation for hosting a facility. The aim should be to ensure enhancement of a community’s identity and image i.e. it should be a ‘benefit’ not a detriment.
11. Review of the MRWS process and its positive aspects such as staged process, the right to withdraw, partnership, volunteerism and participation etc, should be strengthened and retained. NWAA emphasises that in its view, the MRWS process is fundamentally sound¹, based, as it is, on volunteerism, the right to withdraw and community benefits. It was the manner of the programme’s implementation which caused its ‘failure’ (although it is arguable if it did, in fact, fail as Cumbria County Council exercised the voluntary principle by withdrawing.) NWAA recommends a re-statement of the principles and the core elements of the process in line with the interpretation set out above.

NB: NWAA recognises that the issues of ‘right to withdraw’ and ‘community benefits’ are central and vital to the success of MRWS and that any potential host community would understandably welcome guarantees of these considerations being enshrined – possibly in legislation – to ensure that such rights are carried from one parliament to another across the lifetime of the GDF programme.

NWAA would further recommend two additional preliminary steps to the revitalised MRWS programme:

- holding a **conference** to establish the current baseline of understanding of the science and ethics associated with deep geological disposal, similar to the US experience in respect of Yucca Mountain which sought to establish what *is*

¹ One associate of NWAA disagrees with the statement that the MRWS process is fundamentally sound.

known, what is *not* known and how long it will take to resolve the unknowns by inviting key researchers to contribute BEFORE re-launching MRWS:

- establish research councils to establish clear **knowledge transfer website/team** where the latest research findings across all issues is made accessible (c.f. uranium tailings at Port Hope in Canada and where the community insisted on funding such a team to help them follow the arguments) firstly to examine matters relating to generic uncertainties and then to focus on a specific geographical site.

c. Oversight

12. Establish a new oversight committee which has a wide range of expertise including social science and ethics. This committee should manage a fund to which communities NGOs etc can bid for support to pay for independent expertise. This should include funds that can be allocated to critical voices at a national level and some for use by volunteer communities to employ expertise.

d. Waste Issues. Consultation:

13. Determination of the likely inventory communities will be expected to accept: should this include new build waste, then the consequences of that decision in terms of ethical issues, technical issues, revision of repository surface footprint etc are addressed, notwithstanding the recommendation above for a separate process to evaluate the different technical and ethical issues attending the management of a generation of fuel not yet produced.
14. Determination of the 'retrievability issue': this will fundamentally affect the design of the repository and the technical/ethical issues associated with it. It will also avoid the casual and disconcerting practice of changing national policy from disposal to storage – the two are entirely different and send wildly differing signals to potential host communities. By incorporating retrievability into a deep repository is seen by some as a means by which to attempt to achieve both storage and disposal as long term management options when, in principle and in practice, they are entirely different and distinctive options. Their conflation merely serves to confuse and make opaque official intentions.
15. Costs and who bears those costs, developed in a fully comprehensive way not compromised by commercial confidentiality.

e. Development of the Scientific Case

16. Continue research on the **generic** uncertainty issues on the RWMD's 'issues list' in an open and transparent way which involves and includes critics, NGOs, nominated representatives of major stakeholder groups and appropriate minority groups in a programme of joint fact finding - i.e. inside the tent, doing the work alongside RWMD experts and others - joint or co-working.
17. Identify those issues which can be addressed or partially addressed before a specific site is identified. The resolution of generic issues should not be delayed

- until a specific site is identified. RWMD should be required to undertake work which attempts to resolve generic issues across both or all reference geologies.
18. The outcomes of this work should be as open as possible to scrutiny by members of the public within and outside the potential host community. Ensure documents emanating from the process are written in stakeholder-friendly language (where possible) and that the language of possibility rather than certainty is used.
 19. Implement a parallel open and transparent, inclusive, process to examine storage options.
 20. It is axiomatic that a process which has the intention of 'isolating' large volumes of hazardous radioactive waste from the biosphere for millennia should firstly achieve the objective of identifying the most appropriate geology for that purpose. Implement a consultation process which looks at the criteria a potential host geology would have to meet. Should it, for example, be based on depth, natural and very low permeability barriers [as proposed in Canada, Germany (Konrad) and USA (WIPP)] or should it rely on backfill and the integrity of the containers as in Scandinavia?
 21. In its implementation report CoRWM 1 proposed that areas unsuitable on scientific or other grounds should be screened out before an invitation to participate is issued. This is one of CoRWM's key proposals which was not implemented. The first step in the process must be to review the existing UK data and identify the most appropriate geological areas of the country.

MRWS Phase 2

22. Issue a list of those regions which have been screened out as unsuitable. Announce that MRWS will require volunteer communities (in a way that is compatible with the definition of community previously decided).
23. If and when an expression of interest is made, it should be determined by the methodology previously decided whether that expression of interest has public and stakeholder confidence and support.

By email to: radioactivewaste@decc.qsi.gov.uk

Date: 10 June 2013

Dear Sir/Madam

Call for Evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Facility

Introduction

I write on behalf of NuLeAF (Nuclear Legacy Advisory Forum), which is a Special Interest Group of the Local Government Association. We represent the views of our member local authorities in England and Wales on nuclear legacy management issues and developments that may impact on that management.

The comments below are based on NuLeAF's letter to DECC dated 27 March 2013 and further discussion at NuLeAF's Radioactive Waste Planning Officers Group meeting on 5 June 2013. The following comments are submitted with the agreement of NuLeAF's Acting Chair. Because of the short timescale for this consultation, which falls significantly short of Cabinet guidance on consultation practice, it has not been possible to agree these comments at the NuLeAF Steering Group in the usual way before your submission deadline.

So far as possible, comments are structured around your consultation questions with additional observations e.g. on consultation process, included at the end of this document.

Qu 1: What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

Chapter 6 of the 'MRWS White Paper' sets out: how a voluntarism and partnership approach would work; what are communities in this context; issuing invitations; the early process; who can express an interest; moving to a decision to participate; community siting partnerships; right of withdrawal; and, engagement packages and community benefits packages.

NuLeAF would comment as follows on the above matters:

How a voluntarism and partnership approach would work

NuLeAF agrees that the principles of voluntarism and partnership continue to provide the right underpinning for the MRWS policy but more clarity needs to be brought to working arrangements particularly where there are two principal local authorities ('decision making bodies') representing the interests of a local area. DECC should consult on whether principal authorities in two tier areas should agree and declare how they will work in partnership in the early stages of any future MRWS process, and how they should engage with their communities and take decisions, *before* taking soundings within their local community about making any formal expression of interest.

For example, the agreement on decision making developed by the three councils for West Cumbria, and endorsed by DECC, identified important confidence building principles that could be incorporated, subject to review and consultation, earlier and more centrally into any future MRWS decision making process. DECC should invite views on this approach.

Since the publication of the MRWS White Paper the Localism Act has come into force which establishes a duty to cooperate between local authorities and with other organisations. DECC should consult upon how it sees the provisions of the Localism Act applying to any future MRWS process, and provide guidance in any revised MRWS policy on the actions required to fulfil the provisions of the Localism Act.

Generally, it is NuLeAF's view that more clarity at the outset about how principal authorities and other organisations propose to work in partnership *before* taking soundings on any proposed expression of interest, should help build public confidence in any early local authority engagement with MRWS policy.

What are communities in this context?

If greater clarity can be brought to expectations about partnership and decision making at an early stage then NuLeAF sees no case for revising the definitions and roles in the current MRWS White Paper. Nonetheless, DECC should take the opportunity to invite views on whether any improvements can be made to better facilitate voluntarism and partnership in any future MRWS process.

Issuing invitations

DECC should invite views on the information it should make available when inviting local authorities to engage with the MRWS process. Some indicative issues, that NuLeAF considers are important to local authorities, are set out under Qu.3 below.

The early process

DECC should invite views on whether the current formal stages of decision making within the MRWS policy will best help build and sustain confidence between partners in any future MRWS process. NuLeAF believes that there needs to be a formal commitment to initial engagement from a decision making body/ies, but evidently, in the Cumbria case, confusion arose about the purpose of a 'decision to participate' which was characterised in some quarters as the last opportunity to withdraw from MRWS. This clearly, and publicly, misrepresented the factual position creating confusion. Within the West Cumbria MRWS Partnership some partners wanted more information about the prospects for identifying potentially suitable geology before committing to MRWS Stage 4 and site investigation and this placed the Partnership at the time under some strain. The 'decision to participate' also placed the decision making bodies under enormous pressure which possibly, in a differently structured MRWS implementation framework, might have been avoidable.

Who can express an interest?

NuLeAF considers the broad approach within the current MRWS policy remains valid, particularly the need for any local interest in MRWS to be directed initially to the relevant local authority/ies (and devolved administrations in Wales and Northern Ireland). Nonetheless, it is appropriate for DECC to test through consultation whether any case can be made for amending existing policy guidance.

Moving to a decision to participate

Under current MRWS policy, an 'expression of interest' triggers a) the engagement of the British Geological Survey (BGS) in sub-surface screening of an area put forward for consideration in order to eliminate any part of that area that is obviously geologically unsuitable, and b) establishment of a process of engagement between key stakeholders and the wider community to evaluate the generic case for geological disposal and whether or not a credible level of support exists for commencing a GDF siting process.

In NuLeAF's view both the above steps will continue to be required. The West Cumbria MRWS Partnership provided an exemplary model of public and stakeholder engagement that could be emulated by any area that may in future wish to engage with MRWS policy. However, NuLeAF considers DECC should consult on the point at which available information about potential geological suitability of an area should be made available.

Questions were raised during the MRWS process in West Cumbria about whether or not geological screening nationally should take place first, so that Government efforts could be focused on areas with geological potential. Whilst both geological suitability and a volunteer community will remain necessary conditions for any MRWS process to progress, there may be a case for reviewing the approach to successful programmes overseas where identification of geology preceded identification of volunteer communities. Some members of the West Cumbria MRWS Partnership considered this the right approach.

NuLeAF's own research conducted in 2006¹, at the time when MRWS policy was being developed, recommended national high level screening to identify areas of geological potential, to be followed by more focused engagement by Government with communities in areas of potential. NuLeAF recognises that a case can be made for both 'geology' and 'community' led approaches, and would recommend that the strengths and weaknesses of both approaches are set out in any review and consultation on MRWS policy.

Community siting partnerships

NuLeAF considers the broad approach within the current MRWS policy remains valid. Nonetheless, it is appropriate for DECC to test through consultation whether any case can be made for amending the existing policy guidance.

Clarity, transparency and balance in decision making arrangements from the outset of any new MRWS process will be essential to give confidence to any area that may be willing to consider engagement with MRWS. Government should consider the decision making model for a siting process proposed by the West Cumbria MRWS Partnership as a mature basis for review and consultation prior to commencing any new MRWS process.

¹ The Implementation of a National Radioactive Waste Management Programme in the UK: Implications for Local Communities and Local Authorities, B Miller, P Richardson, R Wylie & A Bond, Enviro, June 2006

Right of Withdrawal

Again, NuLeAF considers the broad approach to exercising a right of withdrawal from the MRWS process within the current MRWS policy remains valid. However, as indicated under Qu. 2 below, NuLeAF considers DECC should consult on how the right of withdrawal, held by decision making bodies on behalf of the whole community that they represent, can be strengthened to sustain local authority and community confidence in voluntarism.

Engagement packages and community benefits packages

NuLeAF believes that the provision of engagement packages to local authorities in areas that are willing to consider engagement with MRWS continues to be the right approach. However, to reduce barriers to engagement NuLeAF considers that Government must be ready to reimburse MRWS related expenditure incurred by local authorities (via an approval mechanism) before any formal decision is taken about engagement. This would become particularly important if, as suggested in this submission, that areas considering engagement with MRWS do more preparatory work before a formal 'EoI'.

DECC should consult on the future approach towards Community Benefits additional to investments that would flow from GDF development. In NuLeAF's view, much more clarity will be needed around the tangible benefits available for delivery to an area, and how these can outweigh any potential negative impacts of participating in a GDF siting process and possible GDF development. Negative impacts from engagement with MRWS were felt in West Cumbria, and the MRWS Partnership pressed DECC for clarity on the scope and scale of support that could be provided to the area before, as well as after, GDF construction. Good principles to underpin future discussions were agreed but in future much more clarity much earlier will be needed. NuLeAF would suggest DECC consults on the approach taken to the provision of community benefits in Canada where a high value Government bond is agreed at an early stage with a potential host area, which is then deliverable if and when GDF development takes place. Views on other models for community benefit delivery, from other successful overseas GDF siting programmes such as Sweden, would also be worth consulting upon.

Qu 2: What do you think could be done to attract communities into the MRWS site selection process?

NuLeAF considers that the key issues for DECC and NDA to consider are a) how to reduce uncertainties associated with GDF implementation b) how to communicate more proactively the case for geological disposal over alternatives e.g. indefinite above ground storage, and c) how to convince any local authority that hosting a GDF will deliver tangible benefits to an immediate host community and the wider community.

Reducing uncertainties

Significant uncertainties exist about the 'footprint' of any future GDF and its environmental impact. Whether DECC and NDA's Radioactive Waste Management Directorate can bring greater clarity to the inventory of wastes earmarked for disposal, and wastes that could be diverted from GDF disposal, should be considered with a view to minimising the 'footprint' and impacts. Whether it is reasonable to expect any community to make an open ended commitment to accepting all wastes and SNF, existing and potential, for geological disposal, should also be reviewed and consulted upon.

In any review of MRWS the options for phased waste emplacement linked to on-going rock characterisation and predictive modelling, and phased permissioning, should be considered in the context of the opportunities to build shared confidence in, and community control over, any future GDF development.

The scope for waste retrieval (to allay public concern about the irrevocability of decision making for deep disposal based on imperfect information, albeit the best available at the time) should also be reviewed and consulted upon. Regulators should assist in such a review and should consider whether there is anything in their own guidance that could be improved to build overall confidence in any new MRWS process.

Other generic work, identified by the West Cumbria MRWS Partnership, to reduce uncertainties and improve understanding through generic R&D, risk reduction, and clarification of the risks and benefits attached to the alternatives to GDF development, should continue to be progressed in the near term by DECC and NDA in the absence of an actively engaged local authority and host community.

In the lead up to the decisions in Cumbria it was clear that the County Council remained concerned about the legal underpinning to both the right of withdrawal and community benefits. Copeland Borough Council also expressed concern on this point. NuLeAF is aware that DECC provided reassurance in this regard to the three authorities for West Cumbria prior to their decisions. Nonetheless, before any new MRWS process is initiated, NuLeAF considers that it would be prudent for DECC to consult on how it can reduce uncertainties by providing firmer guarantees that any future prospective decision making body will retain a right of withdrawal up to the point of GDF construction and that any agreed community benefits package will be delivered over the many political cycles spanned by a GDF project. A hybrid bill is one mechanism that has been suggested. Another is to designate GDF development as a national infrastructure project under the terms of the Planning Act 2008, and accordingly consult upon and develop a National Policy Statement for higher activity waste management that embeds commitments to 'right of withdrawal' and 'community benefits'.

However, NuLeAF is mindful that such an approach would appear counter to the broad thrust of Government's localism agenda. The removal of powers over GDF development from waste planning authorities may deter some areas from engaging with MRWS policy.

Proactive communication

Copeland Borough Council has called for a 'national advocate body' with adequate expertise to make the case for geological disposal. This proposal should be consulted upon. Clearly in the hiatus between October last year and January this year there was no body 'championing' the case for MRWS. Social media campaigns opposed to MRWS quickly filled the communications vacuum and undermined an outstanding process of community engagement and consultation conducted by the West Cumbria MRWS Partnership. This identified no 'show stoppers' to commencing a site investigation process in West Cumbria, without commitment to eventually hosting a GDF. It included the clear and statistically robust evidence from an IPSOS/MORI poll of local public support for moving to site investigation.

DECC will face understandable pressure to inject some renewed momentum into MRWS policy, particularly from areas where development of new nuclear build is expected, to increase confidence that a disposal route for any future new build wastes will exist. However, the time scales for any GDF development will, as now, inevitably remain long and NuLeAF recommends DECC first consider a renewed information campaign to a) explain any changes to MRWS policy and b) remake the case for geological disposal, so that a receptive environment can be created before proactively encouraging new interest in MRWS across

England and Wales. Government has experience of this. It did it for new nuclear in the context of energy security and carbon emissions reduction. It now needs to do it for MRWS.

DECC should also consider other steps it can take to send the right 'signals' about MRWS. For example, DECC should consider whether locating radioactive waste management policy within the Office for Nuclear Development promotes public confidence in MRWS policy. During the West Cumbria process concerns were raised in some quarters that MRWS policy is a 'means to the end' of new nuclear build, and not, as it should be, an 'end' in itself.

Government determination to 'accelerate' MRWS implementation during the West Cumbria process was not well received. Despite reassurances at the time that this acceleration only applied to technical aspects of the MRWS process it raised concerns about Government's commitment to a voluntary process.

Tangible community benefits

As indicated under Qu.1 above, NuLeAF would suggest DECC consults on the approach taken to the provision of community benefits in comparable successful overseas GDF siting programmes, and consider adopting elements of overseas practice that builds community confidence. In NuLeAF's view, Government could also build confidence, and demonstrate its commitment to community benefits more clearly, by taking a more inter-departmental approach to community benefit delivery. For example, DECC could consider creating a community benefits task force from Treasury, DCLG, DoT and possibly other Departments, as well as DECC, to scope out with a locally engaged area a positive vision for the future.

Qu 3: What information do you think would help communities engage with the MRWS site selection process?

NuLeAF has not attempted to be comprehensive in the following comments and clearly there is substantial information already available at <https://www.gov.uk/managing-radioactive-waste-safely-a-guide-for-communities> and <http://www.westcumbriamrws.org.uk/>. The West Cumbria MRWS Partnership's work streams covering three years of investigation were largely developed around the key issues that the decision making bodies and other partners considered important. These same issues are likely to be priority concerns for any area engaging with MRWS.

An example of the type of information any decision making body might reasonably be expected to seek before volunteering to participate in a site selection process include:

- A clear explanation of national **need**. Why is geological disposal a better approach to long term radioactive waste management than indefinite above ground storage?
- A clear statement of the **key dimensions and impacts** of a geological disposal facility. How big will it be? What are the main impacts? What secondary infrastructure will be required? Can any supporting infrastructure bring other benefits to an area (e.g. transport infrastructure)? How long are the construction, operation and closure phases? What employment and economic development will GDF construction bring? What investment in education and training can an area expect to ensure local people have high quality job opportunities?
- A clear statement of the wastes and materials that will constitute an **inventory** and why alternative methods of long term storage or disposal for different waste streams and materials cannot offer the same degree of safe and secure management as a geological disposal facility.

- A clear statement of the **geological potential** of an area. What evidence is there that good prospects exist for GDF development in any given area?
- A clear statement of the approach to **regulation, security and safety** and the role of, and confidence in, a multi-barrier system to retard the release of radionuclides to the biosphere.
- A clear statement about why the general public should have confidence in the **safety regulators**.
- A clear statement about why the **future burden of public exposure** from manmade radioactive sources to the most critical group (including any radioactivity escaping from a geological repository in the distant future) is unlikely to be greater than the burden on current generations and, if the evidence supports it, might even be lower.
- A clear statement of the Government's **commitment to voluntarism** and why decision making bodies that represent their local communities can have confidence in their **right of withdrawal** from the MRWS process at any time up to the point where Government consents to the development of any geological repository.
- A clear statement that the national service performed by any decision making bodies on behalf of any local communities that accept a geological repository within their area will be rewarded through an agreed package of **substantial community benefits** additional to any investment and employment directly associated with GDF development.

Additional Observations

Consultation scope

It is vital to maintain confidence in the MRWS process and continue to consistently apply the values of openness and transparency which have underpinned the MRWS process to date, and which helped to generate the constructive work in West Cumbria. Nothing should be 'out of scope' in considering measures that could build public confidence in the Government's approach.

Consultation process

NuLeAF supports a thorough, iterative, wide ranging, transparent, and considered approach during this evidence gathering consultation and future consultative processes. It is important that DECC upholds the rigour and standards which characterised the work of the West Cumbria Partnership. If corners are cut or transparency is lost, then the credibility of the MRWS process will suffer.

DECC should consider convening evidence gathering workshops around different topics or with specific stakeholder groups, like members of the West Cumbria MRWS Partnership who gained a wealth of MRWS related experience. DECC should also consider establishing an independent panel, or use CoRWM's services, to help evaluate evidence gathered and to inform the content of future stages of the MRWS review.

Post consultation, NuLeAF would support the establishment of, and welcome the opportunity to participate in, a new MRWS delivery group that can oversee any work streams that may develop from this review process.

We trust the above comments are helpful to you.

Yours faithfully

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTEDREDACTED
Organisation / Company	Oxford Institute for Sustainable Development (OISD), Oxford Brookes University
Organisation Size (no. of employees)	
Organisation Type	REDACTEDREDACTED
Job Title	REDACTEDREDACTED
Department	REDACTED 
Address	REDACTEDREDACTEDREDACTEDREDACTEDREDACTED
Email	REDACTEDREDACTEDREDACTED
Telephone	REDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept	No

confidential? If yes please give a reason

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

1. Context

- 1.1 I write as a member, for almost three years, of the REDACTEDREDACTEDREDACTED REDACTEDREDACTED. I am one of two academic advisers on the REDACTEDREDACTED REDACTEDREDACTEDREDACTED which is being developed, by REDACTED and its consultants, to apply at both strategic and project levels whenever there is a REDACTEDREDACTEDREDACTED. The work undertaken by the REDACTED REDACTED is of a very high standard and at the cutting edge of environmental assessment practice.
- 1.2 I have not been directly involved in the particular case of West Cumbria, although REDACTED has been given regular updates of the progress of the work of the West Cumbria MRWS Partnership. The partnership produced a very important report on the process, options and advice to local councils in 2012.

2. Cumbria CC issues

- 2.1 Cumbria CC has highlighted several issues which were of particular concern to them in coming to their decision not to participate in Stage 4 of the process. I make a few comments on these below.
- 2.2 Uncertainty over legal position about right to withdraw from the process. This is surprising in that the decision to withdraw right through to the end of Stage 5 of the process is clearly specified in all the MRWS procedures.
- 2.3 Uncertainty over suitability of the geology. Such a concern would be a key issue for testing in Stage 4 of the process.
- 2.4 Lack of clarity on the potential Community Benefits Package associated with the proposed geological disposal facility and to be available to the successful volunteer authority (authorities). This does seem to be an area where the government could have been much clearer much earlier. In the event, the local authorities knew much more about the potential costs than the potential benefits. Only when Cumbria voted against did the Minister talk of a Community Benefits Package-- *'worth hundreds of millions of pounds, to*

support the social and economic wellbeing of the host community, which will have a lasting impact for generations'.

2.5 Concern about the potential impact of the proposed development on the tourism industry in the Lake District. This is surprising given that tourism in the Lake District appears to have prospered for decades whilst there have been many types of nuclear development along the adjacent and so-called *Nuclear Coast* of West Cumbria. Indeed for some time the Sellafield Exhibition Centre was an important wet weather tourism attraction for many tourists. Such wet weather is probably a much more important factor in the attraction or otherwise of Cumbria and the Lakes area for visitors.

3. Some potential underlying issues

3.1 The issues in 2 above may point to other underlying issues. One of these relates to the nature of the communication lines between bodies such as the Cumbria Partnership, the NDA and indeed the Central Government, and the three key local authorities—especially their vital decision making committees. I am not privy to the full nature of such lines of communication and the intensity of their use, but from the issues raised, it would seem that there may have been some gaps in the communication of relevant information.

3.2 Another underlying issue relates to that of trust between the various parties, and perceptions of the strength and reliability of various undertakings, especially the legal basis in relation to the right to withdraw.

4. Future steps?

4.1 Some of the steps relate to dealing with the two fundamental points raised in 2 and 3 above. This will necessitate a more intense and open process between key agencies, especially central government, local government, the Cumbria Partnership and the NDA, in explaining the procedures (especially the legal basis of the right to withdraw), and an early scoping of the potential costs and benefits.

4.2 Perhaps there are also lessons to be learnt from countries that appear to have successfully managed the local area volunteer approach to decisions on deep mined disposal facilities. Although it is important to bear in mind that these countries (Sweden, Finland, Canada) are much more sparsely populated than the UK and the facility can be more easily located in their wider and more remote landscapes. The NDA did produce a very useful report on processes and experience in 'Sister Organisations', although more could probably now be gathered from some of the cases, especially for the geological disposal projects at Forsmark (Sweden) and Olkiluoto (Finland).

4.3 Might there also be some merit in considering trying some of the new procedures being used in the evolving work of the Planning Inspectorate's Major Projects Unit (formerly Infrastructure Planning Commission)? These include, for example: Statements of Community Consultation (SoCC), Statements of Common Ground (SoCG) and Planning Performance Agreements (PPA). The latter could provide very useful extra resources for relevant local authorities to help them to participate fully in the various stages of the MRWS process, although also aware of support given to the current Partnership body as an (alternative?) approach.

4.4 Finally, in Appendix B to the Nuclear NPS (DECC, 2011), the Government notes that: *The Government is committed to making the voluntarist and partnership approach work through the MRWS process. However, the Government recognises that it has a responsibility to deal with long-term higher activity waste management, is committed to*

geological disposal as the technical solution, such that it will seek to develop alternative ways to implement that solution if the current framework, as set out in the MRWS White Paper, ultimately proves to be unsuccessful in the UK. As such there may also be some merit in carrying out a nationwide search for sites, based on key criteria, to help to widen the scope of, and encourage more, potential volunteer communities. Indeed this could be seen as good and necessary practice in considering alternatives in the assessment process.

The government should accept Cumbria's final decision to give up on any hosting of a geological disposal facility in their county as an indication that this is a policy with no future. There is no reason for any other area of the UK to volunteer to host a disposal facility. Even Yucca Mountain in the US has now been permanently ruled out.

Sellafield is already a huge nuclear waste depository; the only solution is for all UK waste and spent fuel to be stored above ground on that site which will never be safe for any other use. Any further attempts to process the plutonium stocks into MOX fuel for existing or new nuclear reactors must also be ruled out; this method would leave even larger quantities of highly radioactive waste for even longer than the legacy waste. Obviously this also means ruling out any new nuclear build in the UK as if eg Hinkley C went ahead, all its spent fuel would remain on site for thousands of years, all its waste would accumulate on site.

REDACTEDREDACTED

PCAH (Parents Concerned About Hinkley)

Burnham-on-Sea

Somerset



Submission to the Department of Energy & Climate Change
Call for Evidence on Managing Radioactive Waste Safely:
Review of the Siting Process for a Geological Disposal Facility



Overall, despite the excellent work of the Partnership in public consultation and in its final report, the process was doomed to failure, partly because of an NGO campaign against it, but mostly because the weaknesses of the process stymied those in favour of continuing with it, and allowed the Cumbria County Council to overrule West Cumbria.

In revising the MRWS process, Government must address the following:

1. A simple two-stage process is required, the first stage being to do everything that is required before taking a final decision to build a GDF in a specific location, the second stage being the actual building of that GDF.
2. At the beginning of Stage 1, the community benefits and impact mitigations must be designed and agreed, prior to invasive testing, with emphasis upon early delivery of benefits and mitigations, beginning at the point of invasive testing, and scheduled in detail throughout the process.
3. The desk-based geological study should run in parallel with the community benefit work, and be followed by invasive testing of potentially suitable sites.
4. Inventory must be discussed and agreed during Stage 1, with Government openly stating, that new build waste will be included, subject to recycling, conditioning, and retrievability.
5. The GDF must include long term monitoring and retrievability, to allow for technological advances, asset re-use, and safety assurance of the design & construction.
6. The decision making and planning authorities must be devolved to the direct control of the interested council area, e.g. Copeland or Romney Marsh.
7. Trade Union involvement throughout the process.
8. The process, including all benefits and guarantees, must be enshrined in primary legislation.

Response form

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Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTED
Organisation / Company	Prospect
Organisation Size (no. of employees)	REDACTEDREDACTEDREDACTED
Organisation Type	REDACTEDREDACTED
Job Title	REDACTEDREDACTEDREDACTED
Department	
Address	
Email	REDACTEDREDACTEDREDACTED
Telephone	REDACTEDREDACTED
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Prospect welcomes the opportunity to respond to the consultation being undertaken in relation to the Siting Process for a Geological Disposal Facility. Prospect represents over twenty thousand members working as scientists, specialists, managers and engineers in the nuclear industry.

The members we represent are proud of the contribution that they make to an industry where safety is of paramount importance. Against that backdrop, policy formulation needs to be empirically based and evidence led. Prospect has been supportive of the view that the most appropriate approach to the management of higher-activity radioactive waste is geological disposal.

Prospect was disappointed and perplexed at the view ultimately taken by Cumbria County Council in the face of the positive votes by Copeland and Allerdale Borough Councils. It is our view that the position reached by Cumbria County Council was not one that was either informed by the most up to date scientific research nor a full appreciation of the proposed next steps. Our observations in terms of process follow in that context.

- Whilst the principles of voluntarism are laudable and few would seek to argue against them- many of our members view the decision taken by Cumbria County Council as perverse in the context of the decisions of Copeland and Allerdale Borough Councils.
- There is a real concern that there was a lack of clarity in relation to the debate which took place as to what was potentially being "signed up" to. In reality this was to move on to the next level of scientific research and a broader impact assessment.
- There was an apparent lack of appreciation in terms of process that a positive endorsement of a move to Stage Four simply committed the parties to further scoping work which included an inventory of waste, negotiations about a package of socio economic benefits and further desktop studies.
- Similarly there was an apparent lack of appreciation that during the period of Stage Four that communities could withdraw from the process at any point.

- Against the backdrop of the above- the debate became confused with some using their opposition to new nuclear generation as a reason to oppose the siting of a GDF and a failure to engage on the issue of long terms legacy waste- much of it military in origin.

It would be naïve to believe that process of this type would be without controversy. Prospect however makes the following recommendations and observations:-

- Whilst Prospect does not question the principle of voluntarism- consideration needs to be given as to how the agreement of local communities is measured and agreed.
- Communications need to be enhanced to ensure that local communities understand what is being asked of them and their representatives.
- Whilst any project would only go ahead if rigorous safety standards were met- it is important that early dialogue take place with regard to the potential socio-economic benefits from a local community perspective.
- In a situation where the debate can become very polarised and heated- consideration needs to be given as how best to provide members of the public with information which can be regarded as authoritative and trustworthy and based on the most up to date science.
- Effective stakeholder consultation is a dynamic and interactive process and particularly in dispersed communities it is important that all avenues are exploited to enhance two way communication.
- Research has consistently shown that those who live closest to nuclear facilities tend to have a clearer understanding of the potential risks and mitigating safety measures in place as well as a more positive view with regard to the potential socio economic benefits. Almost perversely- those who tend to live further away- tend to have a higher perception of risk alongside a reduced familiarity with the potential socio economic benefits.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

After considering the issues listed by DECC, we have structured our response according to the following topics:

- The overall MRWS strategy as defined in the White Paper
- Implementation of MRWS in practice
- Ideas for improving MRWS

Overall MRWS Strategy

When the MRWS Site Selection process was launched a number of important details had not been clearly defined. This lack of detail introduced uncertainty, and in some cases confusion, into the process because certain aspects had to be clarified as the process evolved.

Most importantly, the White Paper does not provide a clear definition of what constitutes a community, which led to the debate about whether both district and county had to be in favour. It does not tackle issues such as the case in which the footprint of a GDF is within one community but the expected location for discharge of any radionuclides that migrate from the facility is within an adjacent community, or in which site investigations must be carried out in a neighbouring community. How would transport through adjacent communities be handled if they were not in favour of a GDF?

The White paper does not set out a clear strategy for how communities would be provided with information so that they can make informed decisions about entering the first stage of the process. As a result, there tended only to be interest from communities already familiar with the nuclear industry. The initial call for volunteers did not appear to be backed up by comprehensive information about what volunteering would mean for a particular community.

The White Paper contains inadequate detail concerning the benefits package available to the volunteer community and how it would be agreed.

The White Paper contains inadequate detail on the right of withdrawal. Ideally the White Paper should have included a timetable for putting the necessary legislation on the statute book for this aspect of the process to be considered truly credible.

Implementation of MRWS

In our view one of the major failings of the MRWS process as actually implemented was the lack of a 'GDF champion', especially during the latter stages of the process (post October

2012). As a result, a number of assertions made by opponents of the scheme went unchallenged when technical or other inaccuracies should have been corrected.

The role of RWMD was to provide information when requested by DECC or the Partnership but not to be proactive in promoting a GDF. The official point of contact was DECC but DECC lacked suitably qualified and experienced staff and so had to rely on RWMD to provide technical information. RWMD may not have been the appropriate organisation to provide technical information for a number of reasons.

- RWMD is a direct descendent of Nirex so, regardless of the reality, many people would find it hard to separate the current process from the process followed during the 1990s and Nirex's reputation.
- While the RWMD programme is 'generic', RWMD also has the job of providing advice concerning disposability (the 'LoC process') for which reference assumptions are required. These reference cases are built around an example site with similar characteristics to the Sellafield system studied by Nirex. Although published RWMD reports cover implementation in a range of geological environments, the 'body language' of the most prominent of the reports, for example 'Steps Towards Implementation' and the generic DSSC, gave the impression that RWMD were not truly committed to considering all geological environments equally.
- As the implementing organisation, RWMD had a vested interest in the process proceeding as fast as reasonably possible, so it is hard to see how they could be seen as providing independent advice.

It might have been beneficial for DECC to have been able to provide technical information that could be seen as unbiased through experts not associated with RWMD.

Despite the efforts of the West Cumbria MRWS Partnership, there was surprisingly little dissemination of information about the project within Cumbria. We came across individuals and organisations we would have expected to be well informed about the project but who had very little knowledge and had not received information.

Potential community benefits associated with hosting a GDF were not 'sold' to West Cumbria. There was scepticism and mistrust about what was being offered. Real programmes with real timetables were required.

Ideas for Future Improvements

We have the following recommendations to improve the MRWS programme in the future:

- A country-wide desk study that identifies those areas that might be suitable to host a GDF is required. DECC then needs to approach potentially suitable areas and positively sell the benefits of hosting a GDF to them. This would include providing reasonably comprehensive descriptions and illustrations of what a facility developed in each potentially suitable area would look like. Most of the basic information required to carry out such a study already exists in work previously carried out for Nirex/RWMD or the Environment Agency (EA). Unless they are pro-actively approached, potentially suitable areas are unlikely to volunteer unless they are already familiar with the nuclear industry and perhaps looking to replace nuclear industry jobs that are being lost. Communities would still have to volunteer, but the supply of relevant information would be targeted on those who might be suitable. In addition, there is no point in wasting resources targeting areas of the county that would definitely be ruled out in the Stage 2 geological screening.
- DECC needs to carry out work that sets out the potential disbenefits of hosting a GDF

in context and then publicise the results. For example, the implications of a GDF need to be set in context (e.g. expected dose from a GDF if releases were at the maximum permitted compared with the dose received during a transatlantic flight) and the consequences (costs, ongoing doses to workers and potential for releases of radioactivity) of 'doing nothing' need to be quantified and publicised in order to dispel the urban myths that surround a GDF. The approach to independently endorsing the work and publicising it widely needs to be developed and implemented, to ensure that a GDF is not viewed as a form of blight.

- An independent body is needed to oversee the provision of technical information to volunteer communities. This should be a technically competent body that can demonstrate a degree of independence from RWMD (it may be difficult for it to be completely independent owing to the small number of suitably qualified individuals available in the UK). It could take the form of a body like CoRWM 1. Possibly the EA or a respected international body such as the IAEA could be asked to oversee the information provided to ensure it is factual and unbiased.
- More imaginative solutions are required. In particular, finding a site that is suitable to take all higher activity wastes should be seen as a bonus not a pre-requisite. Sites that are suitable for part of the baseline inventory should be sought. The option of disposal offshore accessed from onshore should be properly explored – is West Cumbria excluded from that option?
- The benefits package needs to be properly thought out and 'sold' as benefits of hosting a GDF rather than compensation for hosting one.

DECC CONSULTATION - RESPONSE FROM: REDACTEDREDACTEDREDACTED RADIATION FREE
LAKELAND
REDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTED

MANAGING RADIOACTIVE WASTE SAFELY : CALL FOR EVIDENCE OF THE SITING PROCESS
FOR A GEOLOGICAL DISPOSAL FACILITY

To Whom It May Concern,

Radiation Free Lakeland was formed in 2008 following Cumbria County Council Cabinet's (not councillors) "expression of interest." We are volunteers receiving and expecting no funding.

The founder of Radiation Free Lakeland responded in 2008 to A FRAMEWORK FOR IMPLEMENTING GEOLOGICAL DISPOSAL. The letter (attached) dated 18th October 2008 says:

"You point out that two thirds of all 'legacy waste is already at Sellafield but do not make clear that the Government plan is for the repository to take not only legacy but waste from new build. The new reactors being proposed are going to use high burnup fuel which when spent is even more difficult to manage and shield including during transportation, The HLW/spent fuel situation is unworkable now with 'legacy' waste but with new build it will be much worse.

At the Nirex inquiry it was established that the science of disposal is unproven and that the West coast of Cumbria is particularly unsuitable geologically. Given the long time scales involved in looking after radioactive waste surely the prerequisite should be the geological suitability of an area rather than the "willingness" of a community to host a repository. Future generations of that community will be INVOLUNTARY hosts to radioactive nuclear waste.

Cumbria County Council (and government) have a remit to look after the wellbeing of the people of Cumbria. In 2008 the German Government commissioned a study into radiation risks which has halted the nuclear programme in Germany. The KiKK study reveals large increases in leukemia (220%) and solid cancers (160%) among children aged under 5  in 5km of all German nuclear power stations. It also found a clear distance relationship of up to 50km - the closer the children lived to nuclear installations/routes, the greater their cancer risks. It took about 20 years for the scientist Alice Stewart's findings to be accepted and for the practice of X-raying pregnant women and childrens' feet to be stopped.

Policy 11 "Habitats Regulations Assessment would be likely to be required for any site that may be "volunteered."

Research into radiation risks to the Cumbrian environment should be carried out by independent scientists BEFORE CCC (and government) considers asking whether or not we should "volunteer." This is becoming impossible in Cumbria where environmental bodies are being increasingly funded by the nuclear industry and impartiality is questionable. For example the nuclear funding of thte Cumbria Biodiversity Action Plan whose partners include Cumbria Wildlife Trust/English Nature/National Park Authority/Friends of the Lake District.

Before embarking on any commitment to asking us to “volunteer” for a nuclear repository Cumbria County Council should insist on independent studies into radiation risks to biodiversity and to human health. We should be aware of what the risks are before being asked to consider them.

Yours sincerely

REDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTEDREDACTED

Since that letter written in 2008 NOTHING HAS CHANGED apart from £millions spent on grooming Cumbrians to continue along carefully orchestrated steps towards geological disposal.

This “review of the siting process for a geological disposal facility” is a misnomer and a trap geared to receiving answers that will lead back to the predetermined site : Cumbria.

please take the attachment and the above as Radiation Free Lakeland's response

Mr Peter Stybelski
Chief Executive
Cumbria County Council

18th October 2008

MANAGING RADIOACTIVE WASTE SAFELY – A FRAMEWORK FOR IMPLEMENTING
GEOLOGICAL DISPOSAL

Dear Mr Stybelski,

I have signed the petition from West Cumbria Friends of the Earth but would also like the following to be considered.

You point out that two thirds of all "legacy" waste is already at Sellafield but do not make clear that the Government plan is for the repository to take not only legacy but waste from new build. The new reactors being proposed are going to use high burnup fuel which when spent is even more difficult to manage and shield including during transportation. The HLW/spent fuel situation is unworkable now with "legacy" waste but with new build it will be much worse.

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Before embarking on any commitment to asking us to "volunteer" for a nuclear repository Cumbria County Council should insist on independent studies into radiation risks to biodiversity and to human health. We should be aware of what the risks are before being asked to consider taking them.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

We have not been involved with the MRWS process to date and note its complexities.

We would suggest that sites where rail freight can be used to deliver construction materials, and to transport radioactive waste should be given strong priority. Such a move would reduce significantly the impact of construction traffic on local communities and deliver benefits through carbon reduction compared to road alternatives. Rail is already the principle transport mode for radioactive waste, and any new facility must seek to retain this.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

1

The suitability of the geology of a proposed site must come before volunteerism.

The whole of the county or counties of a proposed site must be consulted, openly and transparently.

Expert evidence regarding the suitability of the geology of the proposed site must be completely independent of the government and nuclear industry, be subject to public scrutiny, open and transparent.

There should be no benefits, cash or other waved at cash strapped boroughs as an incentive.

Grooming of local councillors with benefits, cash or other strictly forbidden.

2

There is nothing attractive about having the most dangerous, poisonous, obnoxious substance known to man dumped on your doorstep.

3

Any truthful accurate information would be of no use in engaging a community with the MRWS so unless you engage a convincing liar then I suggest you with hold all relevant information. People will do their own research anyway.

I have a few questions of my own;

Has the cost of Nuclear fuel and its associated industries ever been properly assessed and compared with Hydro power, solar, wind and wave power?

Has the cost assessment included the long term containment of nuclear waste and decommissioning of nuclear sites?

Would the assessment include cleaning areas of contamination such as the beaches around Sellafield and other sites and compensating people who maybe affected by contact with the contamination?

Does it make sense to produce more plutonium when there is already a stockpile of the stuff and nobody wants it?

How do you compensate people for damaged DNA, after exposure to radioactive contamination?

Is nuclear power affordable?

Is it time to look at alternative power before nuclear power bankrupts the country?

Why has Germany abandoned nuclear?

How many leaks, meltdowns, accidents, deaths will it take before it is abandoned in the uk?

Our Ref:

Your Ref: -

The Managing Radioactive Waste Safely Team
Department of Energy and Climate Change (DECC)
55 Whitehall, M07
London SW1A 2EY

4 June 2013

By email: radioactivewaste@decc.gsi.gov.uk

Dear Sir/Madam

Managing Radioactive Waste Safely: Call for Evidence on the Siting Process for a Geological Disposal Facility

Thank you for providing the Scottish Environment Protection Agency (SEPA) with the opportunity to comment on the above consultation document.

I write to advise you that, although SEPA has no specific comments to make on this occasion, we wish to be kept informed of progress and developments in this programme of work. SEPA also recommends that any communities in Scotland, with the potential to be affected by any future siting process, are kept appropriately informed and engaged.

As a public body committed to openness and transparency, SEPA feels it is appropriate that this response be placed on the public record. If you require further clarification on any aspect of this correspondence, please contact ,

Yours faithfully



Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	Seascale Parish Council
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	



Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- **What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?**
- **What do you think could be done to attract communities into the MRWS site selection process?**
- **What information do you think would help communities engage with the MRWS site selection process?**

The consultation was extremely thorough, but in the end there was probably too much for many people to handle and it took place over too long a timescale, leading to overload and boredom.

It seems unlikely that a wider range of communities would be willing to engage with the process. Adverse publicity over the last 60 years has made many communities very resistant to every aspect of the nuclear industry.

West Cumbria, unlike some areas of Britain and unlike much of Cumbrian Lakeland, is familiar with the nuclear industry and is on the whole happy to engage with it. Community Benefit has been a source of support and regeneration to this area, which has lost most of its previous industries of mining, iron, steel and chemicals.

Seascale is one of the largest communities close to Sellafield, with almost every household having past and present involvement with the site, and a positive, or at least tolerant, attitude towards the industry as a whole. Seascale Parish Council supported the proposed move to Stage 4 of the MRWS consultation, albeit with certain reservations, which were common to most nearby parishes and were clearly set out on behalf of us and our neighbours in CALC's response. We believed during the latter part of 2012 that these concerns were being addressed by Government and were encouraged by what we were hearing from Baroness Verma. The abrupt end to the consultation, triggered by Cumbria County Council's decision on 30 January, horrified us and we would support a renewed consultation exercise for West Cumbria alone.

Having been forwarded a copy of your email of 13 May, requesting views on how the selection process for a geological disposal facility, outlined in the 2008 Managing Radioactive Waste Safely White Paper could be improved, Seaton Parish Council comments as follows:

The Council believes that the complex geology in West Cumbria would render it unsuitable for a geological disposal facility & considers it paramount that the selection process should focus on seeking areas around the country which have suitable geology & selecting a preferred site from those, rather than seeking suitable geology after an area has expressed an interest in hosting such a facility.

Regards

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REDACTEDREDACTED

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Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	
Organisation / Company	Shepway District Council
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme?	<input type="checkbox"/> Yes
Would you like your response to be kept confidential? If yes please give a reason	<input type="checkbox"/> No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Aspects of the site selection process we think could be improved

We think that more information should be provided on issues of interest to the local community before any decision is taken on whether or not to submit an Expression of Interest (EoI) or its equivalent in a new process. It should be possible to do this without incurring significant additional costs, at least in terms of the scope of the project. The information provided should respond to local concerns as they arise and be as area-specific as possible. An outline of some of the key issues which arose during our soundings process, which we suggest require the provision of further information in any new process, is set out in the third section below.

We believe that the Government, and DECC in particular, should be seen to be leading the siting process. The Nuclear Decommissioning Agency (NDA) clearly has a key role to play in delivery but there is a danger that it could be seen to be promoting a Geological Disposal Facility (GDF) in isolation from other issues affecting a local community. We therefore suggest that the siting process should be led as far as possible by DECC officials with the involvement of NDA staff being limited solely to the provision of technical information.

The local community should be allowed sufficient time to absorb and learn about the possibility of hosting a GDF before being asked to vote or otherwise express an opinion. Some people will find the idea shocking or difficult to understand so we suggest a period of at least several months between announcing the idea and asking local people for their views, during which time all of the arguments for and against can be debated in depth. The quality of debate locally will depend on the range and depth of information available, as referred to in the first paragraph, but allowing local people sufficient time to consider the information and weigh the issues is of equal importance.

If the concept of an EoI stage is retained in the new process, we believe that you should consider providing some financial assistance to Local Authorities before any decision on whether or not to submit an EoI is taken, rather than no funding being provided until after an EoI has been submitted as in the previous process. This would encourage and enable Local Authorities to be involved and would allow them to provide more information to their community, thus facilitating a more informed choice on whether or not to proceed further.

Our experience, based on the soundings we took from local people and the subsequent political debate, is that a decision to submit an EoI is seen as a beginning of the siting process. This is at variance with the White Paper and views expressed to us by DECC, which is that an EoI should not be considered in this way as there is no substantive commitment to the process unless and until a Decision to Participate is submitted. Any new process should address this difference in perception and enable local people to find out more information without any inference that the siting process has begun in that area.

Geology and its relationship to potential locations for both underground and surface facilities will be a key issue for communities. We think that you should consider instructing the British Geological Survey (BGS) to carry out part or all of the preliminary desk-based studies as early as possible in the process, and certainly before local people are asked to form a view on whether or not an EoI should be submitted. We do not believe that this work would be too costly, particularly in view of the scale of the project and as the number of areas to be investigated would probably be low.

The June 2008 'Framework for Implementing Geological Disposal' focuses on the 'voluntarism and partnership' approach as a means of siting of a GDF to be the right way forward. Whilst the voluntarism route has successfully been adopted in other countries where GDFs have or are being developed, we believe there could be lessons learnt from the details within these voluntarism approaches that could be included in any new process.

What could be done to attract communities into the site selection process

The potential scale of employment, financial and other benefits of being involved in the process should be quantified and spelt out in clear terms at the outset, in particular the likely value of the benefits package. This would enable local people to weigh up the potential benefits against the potential risks and come to an informed opinion before being asked to express a view on whether or not an EoI should be submitted. We consider this to be the single most important change which can be made to increase the chances of any new process based on voluntarism being successful.

From the outset of the soundings process undertaken in Shepway, we experienced a gathering momentum of negativity towards the submission of an EoI, mainly through a lack of readily available relevant information. This became clear through the responses received from the local community which identified their concerns around such issues as public health, environmental damage, unsuitable geology, flooding, waste from other countries etc. We believe it would have been helpful if the Government, and more particularly DECC, had provided information early on to address these concerns and also information focussing on the key benefits, such as the number and types of jobs (i.e. high quality skilled and technical rather than unskilled), the likely numbers of peripheral and support jobs that would be generated and the type and scale of the benefits package (with particular reference to the issues and needs of the area).

From experiences in Cumbria, and to a lesser extent in Shepway, greater clarity on issues around democratic accountability and decision-making may allow other local communities to feel more comfortable about becoming involved in the process. Local people should be able to explore the possibility of hosting a GDF in an open-minded way without feeling (even if incorrectly) that they are making any sort of binding commitment from the outset or that decision-making will be taken away from them as the siting process proceeds. The June 2008 'Framework for Implementing Geological Disposal' was intentionally vague about definitions of

'Host Community' and 'Wider Local Interests' and did not provide any guidance on necessary levels of support in either community for the process to continue past any key decision point, nor on recommended means to establish the views of these communities. In our view, some quantitative guidance in these areas would be beneficial in reassuring local people and allowing a 'Decision Making Body' to show that it is following the Government's guidance in addition to general good practice. More guidance on the following specific aspects would also be helpful:

- The differing account taken ('weighting') of views expressed by people who live in the potential host community area as opposed to those who live further away but who may still be affected by the proposal, for example as a result of the transportation of waste through their community.
- The community's rights to exercise the Right of Withdrawal. This should address concerns that it may become increasingly difficult or even impossible to do as the project progresses i.e. as the costs incurred increase and perceived momentum builds.
- Responsibilities for, and influence over, decision-making of local and neighbouring councils at parish, district and county levels, particularly if not all of these councils agree
- The form, powers and democratic accountability of 'Community Siting Partnerships' (or their new equivalent)

Information which would help communities engage with the site selection process

In general, information provided to local communities must show both the positive and negative potential effects of involvement in the site selection process in an open, honest and balanced way. Local people must be presented with, and also feel that they have been presented with, factually correct and balanced information. Any perception that a GDF is being forced on a local community, or that the information and arguments presented are not factually correct and balanced, is likely to turn communities from engagement towards opposition.

General concerns for local people will be the potential effects on house prices, businesses and tourism. Our view is that more information than in the previous process should be provided at an early stage to enable local people to reach an informed decision on possible effects, both positive and negative. Whilst it is understood that it will probably not be possible to provide much information and analysis on local issues until the later stages of any new process, it should be possible to provide generic information covering experiences to date in Cumbria, Shepway and in other countries. Without such information and analysis there is a natural tendency for local people to focus on the potential negative effects, since many of these are more obvious and easily understood than some of the potential positive effects. It is worth bearing in mind that peoples' homes and jobs represent personal security so they are unlikely to want to even consider moving from the status quo unless there are very good reasons to do so. It is therefore essential that local communities understand the potential benefits of involvement as well as having at least some answers to issues of concern at the earliest opportunity, to avoid the risk of an early decision not to be involved further before the issues have been examined in any depth.

With regard to specific issues, nuclear safety will be a key concern for many local people, in relation to both public and environmental hazards. As much information as possible should be provided on issues such as long term safety, monitoring of radiation in the environment, the control of gases, degradation of waste containers and transportation methods, routes and associated safety hazards. As in other areas, the information should be structured so that simple concise information is provided with the ability to 'drill down' to increasing levels of detail

or those who wish to.

Finally, we believe that the wider picture of the UK's nuclear new-build programme and the international approach to nuclear waste disposal, including legacy waste, should feature more prominently in information provided and discussions about the site selection process. It became clear to us from our involvement that these matters were far from resolved and could have a major bearing on the size, nature and timing of any GDF. There was some concern within our community that although their initial agreement was required to host a GDF for legacy and some new-build waste it would not subsequently be required to significantly expand the facility to deal with a much larger new-build programme and even different types of waste or spent fuel. Would it be possible, for example, to limit the size and type of the waste inventory that could be disposed of in a GDF without further agreement by the community, thus ensuring that their agreement would not be open-ended?

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Or by post to: The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	SKB International AB
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	



Would you like to be kept informed of developments with the MRWS programme?	Yes/
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2001 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

1. What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
2. What do you think could be done to attract communities into the MRWS site selection process?
3. What mechanisms do you think would help communities engage with the MRWS site selection process?

- **What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?**

As a waste management organisation with experience of establishing a siting process based upon the voluntary participation of interested and potentially suitable communities in the process we observed the following aspects:

- The MRWS process for the UK requires major decisions to be made between each of the stages.
- Decisions are placed on the community and it is not evident who is expected to make that decision.
- There was no clear advocate or driver for the project. The NDA RWMD as the implementer were participants, not drivers in the process. This appears to have created a space into which opponents of the project were able to put forward views and information which is unchallenged, perceived to be fact and has left a number of issues that now need to be addressed.
- Decision makers need clear information on which to base any key decision.

The process produced a number of positive steps and demonstrated that progress in forming a relationship with a community is possible. The production of the MRWS Partnership report was a very positive step forward. It set out clearly areas where further information was needed and where more dialogue was required to understand the needs of the community. The work of the Partnership is to be commended and produced a sound basis for the building of a relationship with a community that is the key to the success of the project. There was no visible response to the needs of the Partnership in the Cumbria community and the MRWS process required a decision between stages 3 and 4. This decision was placed on the shoulders of the local politicians. They appear to be forced into a position that required them to make a decision of national importance amongst the perception that the information for the decision was not complete and ultimately leading to great political risk to them as individuals.

In this situation it may have been logical to suggest a further pause in the process to address the community issues and discuss with them how this could be done rather than force a decision.

The use of the term 'screening' with respect to the geology at this early stage is very

dependant upon the criteria used. Use of language in terms of developing the understanding of the geology in an area allows the implementer to show what already exists for an area and what the information gaps may be. This will be different for each area. Even in a 'uniform' hard bedrock such as in Sweden suitable sites and unsuitable areas can exist in the same community.

In the Swedish siting process:

It was essential to have an advocate for the project. SKB as the implementer of the geological disposal facility is responsible for driving the project and obtaining all the necessary approvals including the support of the local communities. The role of bodies such as the regulators, government is to give approvals based upon the evidence of the implementer that it has support for key decisions in the process.

A GDF is a facility that is needed by a nation with a nuclear power programme. This is generally accepted on a national level – the waste exists and must be dealt with. At a local level, often in a community familiar with the industry, there is also general acceptance of this need. In Sweden the wider region is not so involved. A national campaign using the waste transport ship Sygyn and visits to existing facilities was used to communicate what was planned together with the open invitation to volunteer should an area wish to become more informed or involved.

The Swedish siting process was based around the community being able to opt out rather than opt into the process. Following unsuccessful siting studies in the early stages a revised approach was that as the implementer SKB was clear about which areas it would like to investigate. SKB stated its intent to carry out a number of feasibility studies. These addressed socio-economic issues such as tourism, property values as well as technical studies such as geology/safety and engineering. The local decision makers could then ask for more information and 'allow' a feasibility study to be carried out (often as there were no grounds for refusal). Such an approach proved to be successful as it did not require decision makers to 'invite' SKB to study their area, rather the process was seen as something that was 'done to the community' in 'the national interest as the waste exists', with the leaders acting in the interest of the community not the GDF project.

This approach does not force the community leaders into making significant nationally important decisions; rather it gives them the power to engage in a matter of national importance with the ability to exercise a veto on behalf of their community.

- **What do you think could be done to attract communities into the MRWS site selection process?**

It is essential that there is a clear advocate for the project and this should ideally be the implementer of the GDF project, NDA RWMD, as they have the information needed to communicate directly with potential communities. It is also important that the implementer is empowered to engage and negotiate on behalf of the project.

It is important to build confidence that the Government policy for a GDF in the UK can be implemented. The competence and skills of the NDA RWMD in understanding the wastes, the geology of the UK and research, development and demonstration (RD&D) into the technology for implementing geological disposal needs to be made visible.

A key feature of the Swedish programme in the early stages was visits to existing facilities and the development of new SKB demonstration facilities to demonstrate key aspects of the concept and the competence of the SKB organisation.

A particular issue from the experience in Cumbria is the geology of the UK. This needs to be addressed.

The communication of technical competence should be a key consideration for NDA RWMD.

- **What information do you think would help communities engage with the MRWS site selection process?**

A study of the UK geology could be used to open dialogue with communities. This is something that the UK Government could ask NDA RWMD to carry out to address the question, could the Government policy of implementing a GDF be done in the UK?

Dialogue and communication on aspects such as what information can and should be used and how much is known already about the UK geology could be used to start a dialogue with communities.

Like Sweden, there are already nuclear community groups who will have expertise and many decades of experience of nuclear issues. The question of dealing with the legacy is, we understand, already being addressed by NDA through liaison with such communities. NDA RWMD could utilise such established links through its parent organisation to further the discussion on whether such communities are interested in a continued relationship with the nuclear industry in the form of initiating studies regarding the feasibility of a GDF or if and how the waste they currently store will be removed.

Such communities are already 'affected communities' and could be considered as such with regard to the MRWS Process.

Other points:

Process needs to be flexible, not prescriptive.

Experience in Sweden was that it was very important to have a transparent and listening attitude resulting in changes in procedures, plans, time schedules and layout when appropriate or necessary in order to build trust and confidence. SKB learnt that there needs to be a basic understanding that this will normally take some time and should not be forced.

SKB found that there was a need for local actions and responses at the early stages. Operative field resources on all levels to give rapid, dedicated and continuous support for both decision makers and the public in and around participating communities are needed.

The Feasibility Studies included assessment of the technical areas of geology/safety and engineering as well as the socio-economic studies including impact on the environment. These latter areas addressed issues of interest specific to the community such as tourism, property values impact on local business. The communities were given the opportunity to suggest issues to be studied and to follow and influence these studies.

Added Value

In Sweden the discussions regarding the benefit to a community are framed in terms of the 'Added Value' of the project and the presence of SKB as a long term neighbour and part of the community.

In the early stages of the siting process the communities were able to access funds to support

their involvement with SKB. Such engagement and involvement allowed the communities access to studies, consultants, information and a better understanding of their community. Such studies were an excellent vehicle for engagement and were considered a lasting benefit to the local politicians and community.

Once the site investigations were drawing to a conclusion regarding the preferred site the community mayors initiated the discussion regarding the benefits to both communities who had invested many years in engagement with the project and SKB.

The Added Value programme was negotiated - between the two communities, SKB and SKB:s owners - reaching an agreement that the Swedish utilities would provide funding so that , over time , a total added value of 2Bn SEK would be created for the two communities.. 75% would be created in the community that was not selected for the GDF and 25% in the community who would potentially host the facility. Of this 80% would only be available after approval for construction was granted and 20% could be allocated up to this point. A mechanism has been set up for joint decisions on what initiatives that would be funded and the calculated added value that they would represent. A guiding principle for this mechanism is that added value initiatives must give long term positive effects for both the community and SKB and that the estimated added value exceeds the money invested.

(The funding is allocated through a special decision process and is available to projects which are considered to add value to the community often in terms of providing a pleasant and prosperous community environment for the families of SKB and other businesses in the area.)

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.qsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	
Organisation / Company	SPAND (Solway Plain Against Nuclear Dump)
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

National Geological Survey

The single greatest failure of the MRWS site selection process was ignoring geological suitability until stage 4 of the six stage process, beyond the most rudimentary screening in stage 2. The introduction given in this form misleads by stating:

- 4.The Government also continues to hold the view that the best means of selecting a site for a geological disposal facility (GDF) is an approach based on voluntarism and partnership*
- 5. Evidence from abroad shows that this approach can work, with similar waste disposal programmes based on these key principles making good progress in countries like Canada, Finland, France and Sweden.*

This is incorrect. Unlike MRWS, Finland, France and Sweden all considered geological suitability **before** seeking expressions of interest. The 2008 White Paper also misleads on this point. While Canada's process may appear at first glance to resemble MRWS, in that Canada did allow volunteers before a systematic geological survey was carried out, it cannot be compared with the situation in England and Wales. There is a vast area of potentially suitable unfaulted Precambrian basement rock, known as the Canadian Shield, around fifty times the size of England and Wales combined. Much of this is in areas of low relief, which unlike West Cumbria produces the required low hydraulic gradient (slow movement of groundwater). DECC and NDA's claim that Canada followed a similar approach to MRWS is at best disingenuous.

The 2008 White Paper may have placed voluntarism above geological suitability as a reaction to the failure of the American process at Yucca Mountain following the 1987 'screw Nevada' bill, where they focussed on geology and all but ignored local opinion. However, the MRWS approach of focussing on local opinion and ignoring geology until a very late stage is also seriously flawed, arguably more so, since it has confined the UK's search to one of the least geologically suitable areas.

If MRWS is to retain any credibility, a national geological survey must take place **before**

seeking expressions of interest from areas which are amongst the most suitable. In order to retain public trust, this should be a peer-reviewed survey carried out by geologists with no link to the nuclear industry. It should be noted that BGS's role in stage 2 of MRWS has been questionable. In particular, the change to the Screening Report between draft (July 2010) and final (October 2010) versions which brought the Solway Plain back into play has never been fully explained. The draft version only became available to us when Professor Smythe received a leaked copy, having first been denied it through official channels.

The NDA has described this as a 'change of interpretation of criteria', but was unable to provide further details of how and why this change took place. In our view this falls well below the standard of openness and transparency required. What appears to be scientific manipulation of this kind was part of the reason for the complete breakdown of trust in MRWS that has taken place in West Cumbria and the Solway Plain in particular.

Voluntarism

The assumption underlying the MRWS process is that the public are in favour. DECC continues to ignore all other evidence and highlight a MORI poll conducted in early 2012 as evidence of public support. The most startling aspect of the poll was that 80% of those responding knew little or nothing about the proposal. It would be reasonable to assume that those who did know about it were more likely to respond, hence only a tiny minority of Cumbrians were aware of the process. This highlights the almost complete failure of the MRWS consultation process. In January 2013, the NDA acknowledged that the consultation had failed at the public meeting in Keswick.

Wider public opposition to the proposal began in autumn 2012, well after this MORI poll was conducted, including the formation of SPAND, NOEND and a Keswick group, and yet this widespread opposition is being ignored by those who seek to justify this process on the basis of the flawed MORI poll. Partly due to these groups, awareness of MRWS is now much greater, as is the level of opposition. Eddie Martin, then Leader of Cumbria County Council, has been quoted as saying that of the huge numbers of people who contacted him in the run up to the January 2013 decision, the ratio of opposition to support was around 20 to 1. The one area to call a public vote, Ennerdale, recorded 94% opposition to stage 4 (on a 74% turnout), i.e. about 20 to 1 as well. In advance of this vote, a well-attended public meeting was held including representatives from DECC, NDA, Copeland, Sellafield, ONR, together with opposition groups, where the public had ample opportunity to hear all sides of the debate, so this was a well-informed vote which overwhelmingly opposed the process.

Voluntarism should not involve the local decision makers being pressurised by DECC – they are supposed to be acting in the interests of their electorate. In the last few days of January right up until a few minutes before the meeting at which the decision was taken, members of DECC including Baroness Verma, applied relentless pressure to Cumbria CC cabinet members to ignore the wishes of their electorate and vote to proceed to stage 4.

If an MRWS process is going to begin in another part of the country, lessons need to be learned from the failed consultation in West Cumbria. Voluntarism should mean that the people can choose to say no.

Excluding Environmentally Sensitive Areas

The search area in West Cumbria included an AONB, several SACs, a RAMSAR site, a National Park and several other protected areas. In fact over 80% of the search area remaining after the initial screening (stage 2) was within at least one of these protected areas. These areas should have been screened out from the start. This is something which Nirex understood and yet this seems to have been deliberately ignored by MRWS.

Had the process continued to stage 4, and a potential site been selected which was within, or adjacent to on one of these protected areas, **the law requires that all other unprotected sites in the UK are ruled out before a protected site can be considered.** This is a fundamental defect in the MRWS voluntarism model and this reinforces the need to conduct a proper national survey of the geology at the very start of the process, i.e before expression of interest at MRWS stage 1. We know that a significant area of the UK is potentially suitable and this has even been correctly highlighted by Nirex, therefore **protected sites must be ruled out by law.**

The NDA and DECC have recently accepted the need to carry out a Strategic Environmental Assessment of the entire country before a protected site can be considered and yet they have unthinkingly followed the White Paper and allowed the process to reach the end of stage 3 without carrying this out. This is a catastrophic failure of the MRWS voluntarism process and highlights the need to return to the drawing board. Having spent millions of pounds and a great deal of time designing the MRWS process, it is hard to understand how this was overlooked by DECC, NDA and CoRWM.

Grooming

An internal Nirex Report from October 2004 to promote geological disposal has come to light. This report includes the advice that:

“We have to be sure that opinion leaders are carefully recruited and groomed” p15

“Investigate ways of using other organisations e.g BGS, Geological Society...” p17

“Embark on programme to change the image of Nirex so it will be considered a concerned, caring, soundly based and scientifically founded organisation” p18

“Design strategy to:

- **bolster and, if possible enlist MPs who support our policy**
- **convince those MPs who are indifferent or soft against**
- **isolate or convince those MPs who are against”** p17

While we would expect DECC to deny all knowledge of this rather embarrassing report, and claim that Nirex has nothing to do with the current process, that isn't entirely true. Some of the

same people are involved with MRWS today, and the behaviour of DECC / NDA seems to very closely follow the advice in the report. One employee of Nirex from that time has managed to get himself into the position as MP for Copeland and needless to say, is a fanatical supporter of the plan.

If DECC / NDA is to gain the public's trust, it will have to stop using these methods. In particular the grooming of senior local councillors needs to stop. One way to prevent this grooming or lessen its effect is to ensure that all council votes on MRWS matters are full council votes, not just executive/cabinet members.

MRWS must also avoid conflicts of interest. In the failed West Cumbrian process, the Allerdale and Copeland leaders also chaired WCMRWS. Any normal process would exclude them from the council votes on the process, but not this one. Any future process must address this conflict of interest by excluding any councillor directly involved in MRWS from any council vote on the matter.

Town and Parish Councils

If the views of town and parish councils are ignored then there is a strong possibility of an urban majority choosing to impose a GDF on a rural minority many miles away from them, against their will. The Solway Plain for example is about 20 miles from Workington where 5 of the 7 executive members of Allerdale have their seats. Therefore under the current system, they could ignore the overwhelming rural opposition to the GDF.

85% of town and parish councils across Allerdale and Copeland which voted, opposed the move to stage 4, and yet executive members of these councils were able to ignore their opinions. The town and parish councils had to rely on Cumbria County Council to reflect their strong opposition and stop the process.

If this is a voluntary process, town and parish councils must be given the option to withdraw from the site selection process at any time.

Secure Interim Storage

The National Audit Office has recently reported that Sellafield's nuclear waste storage poses an intolerable risk and that for 50 years the site operators have failed to develop a long-term plan for the waste.

Even if a GDF site was found after a proper national search, some of the higher activity wastes including plutonium cannot be buried for well over a hundred years. There is an urgent need for secure interim storage on the Sellafield site. This will also allow research into the principles of geological disposal to continue. We know for example that the NDA's preferred KBS-3 storage concept has been found to be severely flawed by research published in Sweden in 2011, causing a major rethink in Sweden, yet NDA/MRWS appear not to have noticed this and are pressing ahead assuming that the concept works.

Summary and Recommendations

- 1. The first action of MRWS has to be to conduct an independent and detailed national survey of the geology to highlight the most geologically suitable areas for a GDF. This should be peer-reviewed.
- 2. MRWS must screen out all environmentally sensitive areas and areas adjacent to them which would be impacted by construction of a GDF.
- 3. MRWS should seek expressions of interest exclusively from areas which are both geologically suitable and not environmentally sensitive.
- 4. MRWS/DECC must clean up its act and allow voluntarism to succeed or fail without applying undue pressure. The grooming, manipulative and pressurising behaviour which has been very visible in West Cumbria has to stop. All votes must go to full council to help prevent the culture of grooming senior councillors.
- 5. MRWS must allow towns or parishes to exclude themselves from consideration at any time for any reason.
- 6. The Right of Withdrawal must be enshrined in law.
- 7. A benefits package should be drawn up in the form of a sovereign wealth fund, sufficient to provide a substantial improvement to the wider area for the full life of the waste. It is an absolute disgrace that there are significant areas of child poverty in close proximity to the current storage site for nuclear waste at Sellafield. These areas have been failed, and continue to be failed by their politicians and councillors, many of whom have close links to the nuclear industry. Where are the community benefits for storing this waste for the last 60 years and why should any volunteer community believe it will be different this time?
- 8. Opposition groups should receive funding to allow them to take independent scientific and legal advice from experts throughout the process as in Sweden, rather than depending on these experts to give their time freely as a matter of principle.
- 9. There is an urgent need for secure interim storage on the Sellafield site to remove the intolerable risk identified by the NAO.

If all of these recommendations are set out and followed with full transparency, it should enable potential volunteers to have sufficient trust the process and enable a good chance of success.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

St Bees Parish Council discussed its reflections on the site selection process at its last meeting. A number of different views were put forward and parish councillors have agreed to submit detailed individual responses. The council as a whole has agreed the following key points on the consultation exercise which took place recently in Cumbria:

- **Lack of trust - there was a widespread lack of trust in the site selection process and a perception that the exercise was not a genuine consultation.**
- **Lack of an effective and acceptable decision making process and body - the process of requiring three authorities to separately agree on a positive response in order to proceed to the next stage was not an effective way of managing the decision making process.**
- **Lack of clarity in the community benefits - the benefits to a local community of hosting a deep geological storage facility were too vague with non-specific timescales.**
- **Lack of a clear exit strategy- the right of a community to withdraw from the process at the next stage was not clear and unambiguous and there was no legal guarantee.**

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Introduction

The biggest problem with the MRWS site selection process was not dealing with geological suitability until stage 4 of a 6 stage process (other than the most basic screening in stage 2). The introduction to this current consultation is wrong when it says:

- 4.The Government also continues to hold the view that the best means of selecting a site for a geological disposal facility (GDF) is an approach based on voluntarism and partnership*
- 5. Evidence from abroad shows that this approach can work, with similar waste disposal programmes based on these key principles making good progress in countries like Canada, Finland, France and Sweden.*

This is incorrect. Finland, France and Sweden all considered geological suitability before embarking on voluntarism.

The MRWS approach of seeking local opinion (whose value is questionable without any hard information on the geology being available) is seriously flawed both in principle and because in practice it has restricted the UK's search to one of the least geologically suitable areas – thus wasting millions of pounds and many years.

If this process is to retain any credibility, a national geological survey must take place before seeking expressions of interest from those areas which are amongst the most suitable.

Openness and Transparency

There is no public trust in the MRWS process in Cumbria. The geologists had links to the nuclear industry and the leaked Nirex Report from October 2004 advises tactics that are both underhand and entirely inappropriate when dealing with a matter of national importance with such massive safety implications.

Some of the original NIREX professionals are involved with MRWS today, including the MP for Copeland - a vocal supporter of the plan and former NIREX employee.

If DECC / NDA is to gain the public's trust, it will have to stop acting in this way. In particular the grooming of senior local councillors needs to stop. One way to prevent this grooming or lessen its effect

is to ensure that all council votes on MRWS matters are full council votes, not just executive/cabinet members.

MRWS must also avoid conflicts of interest like: the Allerdale and Copeland leaders also chairing WCMRWS; and a director of the communications company employed by MRWS being the chair of the Keswick Tourism Association (who were bizarrely silent on the subject until a very late stage when they could no longer ignore their members' protests).

Voluntarism

The assumption underlying the MRWS process is that the public are in favour. This is not and was never true. The public were initially ignorant of, then largely against, the process. DECC continues to ignore all other evidence and highlight a MORI poll (Feb/March 2012) as evidence of public support. The only credible information highlighted by the poll was that 80% of those responding knew little or nothing about the proposal. This clearly demonstrates that only a tiny minority of Cumbrians were even aware of the process, highlighting the almost complete failure of the MRWS consultation process. At the public meeting in Keswick (January 2013), the NDA acknowledged that the consultation had failed. The proper response to the discredited MORI poll would have been to halt the process and consider better ways of consulting with the population, not chalk it up as some sort of "pro-vote".

Widespread public opposition gathered momentum in autumn 2012 but was ignored by those who seek to justify this process who favoured the discredited MORI poll. Nevertheless huge numbers of people who contacted Eddie Martin, then Leader of Cumbria County Council, in the weeks before the January 2013 decision, the ratio of opposition to support was around 20 to 1.

If an MRWS process is going to begin in another part of the country, lessons need to be learned from the failed consultation in West Cumbria. Voluntarism should mean that the people can choose to say no and be listened to if they do.

Town and Parish Councils

If the views of town and parish councils are ignored then there is a strong possibility of an urban majority choosing to impose a GDF on a rural minority many miles away from them, against their will. 85% of town and parish councils across Allerdale and Copeland which voted, opposed the move to stage 4, and yet executive members of these councils ignored their opinions.

If this is a voluntary process, town or parish councils covering the actual site being investigated must be given the option to withdraw from the site selection process at any time.

Secure Interim Storage

The National Audit Office has recently reported that Sellafield's nuclear waste storage poses an intolerable risk and that for 50 years the site operators have failed to develop a long-term plan for the waste. Even if a GDF site was found after a proper national search, some of the higher activity wastes including plutonium cannot be buried for well over a hundred years. There is an urgent need for secure interim storage on the Sellafield site. This will also allow research into the principles of geological disposal to continue.

Summary and Recommendations

- 1) The very first step of MRWS should be to conduct an independent and detailed national survey of the geology to highlight the most geologically suitable areas in the whole of the UK for a GDF.
- 2) MRWS should only seek expressions of interest from areas which are both geologically suitable and not environmentally sensitive.
- 3) Any future process should be transparent and fair. All votes must go to full council to help prevent the culture of grooming senior councillors.

- 4) MRWS must allow towns or parishes to exclude themselves from consideration at any time for any reason.
- 5) The Right of Withdrawal must be enshrined in law.
- 6) A benefits package must be specified and sufficient to provide a substantial improvement to the wider area for the full life of the waste. Areas near Sellafield have been failed, and continue to be failed, by their politicians and councillors, many of whom have close links to the nuclear industry. Where are the community benefits for storing this waste for the last 60 years and why should any volunteer community believe it will be different this time?
- 7) There is an urgent need for secure interim storage on the Sellafield site to remove the intolerable risk identified by the NAO.

If all of these recommendations are set out and followed with full transparency, it should enable potential volunteers to have sufficient trust in the process and enable a good chance of success. It can work, and it has worked in other countries – but only if it is done properly and fairly.

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

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Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTEDREDACTEDRE
Organisation / Company	Sussex Energy Group at SPRU, University of Sussex
Organisation Size (no. of employees)	REDACTEDREDACTEDREDACTEDRE DACTEDREDACTEDREDACTEDREDA CTEDREDACTEDREDACTEDREDACT
Organisation Type	REDACTEDREDACTEDREDACTEDRE
Job Title	REDACTEDREDACTED 
Department	REDACTEDREDACTEDREDACTEDRE
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Email	REDACTEDREDACTEDREDACTED
Telephone	REDACTEDREDACTEDREDACTED
Fax	na

Would you like to be kept informed of developments with the MRWS programme?	Yes
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Would you like your response to be kept confidential? If yes please give a reason

No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

This response was prepared by REDACTEDREDACTEDREDACTEDREDACTED of the Sussex Energy Group based at SPRU at the University of Sussex. The Sussex Energy Group undertakes academically rigorous, inter-disciplinary research that engages with policy-makers and practitioners. The aim of our research is to identify ways of achieving the transition to sustainable, low carbon energy systems whilst addressing other important policy objectives such as energy security.

What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?

Since the failure to acquire planning permission for a Rock Characterisation Facility at Sellafield in 1997, relatively little geological research specific to radioactive waste disposal has been carried out in the UK (CoRWM 2009). Arguably, an optimal site selection process would identify areas with favourable geological characteristics before inviting communities to volunteer. The process would involve collaborations between geologists and those with expert knowledge of geological disposal to determine specific geological containment criteria, followed by a nationwide programme to identify areas with geological characteristics that match those criteria. This would help to inspire confidence in communities that their specific geology is appropriate for a repository, and not merely acceptable to government and regulators as being 'good enough' once the community has volunteered.

This process would combine elements of previous approaches to site selection in the UK (see Folger 1995) - which attempted first to identify geologically favourable locations with particularly good containment potential - with the prevailing approach, which emphasises partnerships with and voluntary participation by local communities. We consider both elements to be a necessary part of a successful process. Experience in other countries (such as with the Gorleben plans in Germany) shows that attempts at 'forcing' communities to host such facilities have been unsuccessful and divisive.

What do you think could be done to attract communities into the MRWS site selection

process?

One way to increase confidence in the process both among experts and the wider public is to ensure that an independent body is established to provide its own analysis alongside the Nuclear Decommissioning Authority.

This extra-governmental body would conduct research on geological disposal concepts (e.g. the properties of man-made barriers and their interaction with natural barriers), and undertake its own in-depth geological analysis of any areas that volunteer. The independent status of this body would promote greater public trust in its findings. Indeed, CoRWM has argued for the establishment of such a body (CoRWM 2009) and may be well placed to nominate suitable individuals to serve as members. A key task of such a body would be to ensure that the geological, technical, socio-economic, political and ethical aspects of radioactive waste management would be examined from a diverse range of perspectives. This would entail making available the technical and financial resources necessary to ensure that management options currently in minority can be examined and presented on an equal footing alongside those that presently enjoy broad consensus and institutional support.

Providing support for such 'counter-expertise' is also likely to represent an effective way of assuring the public and other stakeholders that radioactive waste disposal issues are being adequately scrutinised by multiple institutions. Trust in institutions is a key factor in determining the acceptability of any solution found as recent research on carbon capture and storage suggests (Huits et al 2007; Terwel et al 2009a,b). Since the government and the nuclear industry are generally less trusted than NGO's or independent academics, it is important that such a body has representation from such groups. An international example of such an approach is the creation of Sweden's *Miljöorganisationernas kärnavfallsgranskning* (MKG), a non-governmental organisation funded by the country's Nuclear Waste Fund. This body aims to appraise "the Swedish nuclear industry's nuclear waste project as it relates to public health and the environment", and advances "various alternative options for nuclear waste management with a focus on long-term environmental safety and the welfare of future generations" (MKG, 2011). Experience from the work of the local citizens' information and monitoring group (CLIS – Le Comité Local d'Information et de Suivi du Laboratoire de Bure) in France could likewise provide insights into ways of ensuring such a counter-expertise function exists.

In a statement on its decision to withdraw from the process before Stage 4, Cumbria Council cited the government's failure to statutorily guarantee its right to withdraw at subsequent stages as an important reason for this decision (Cumbria County Council 2013). However, the site selection process outlined in *Managing Radioactive Waste Safely* (2008) allows for withdrawal at these later stages. As such, enshrining the right of withdrawal in a statute would confirm beyond doubt that volunteer communities have the option to withdraw should they decide to do so at later stages in the process.

An additional measure that could help to encourage communities to participate would be to legally incorporate 'reversibility' into the process, as has been done in France (Planning Act 2006). This relates not only to the possibility of retrieving waste packages, but also to the decision-making process itself: the disposal solution should be such that it allows a return, at any moment, to the previous stage in the decision-making process. As an adjunct to enshrining the right to withdrawal, this approach would promote confidence among volunteer communities that they are not bound to continue with the process. Moreover, such reversibility of the decision-making is designed to foster flexibility, adaptability and continuous learning in the face

of the irreducible uncertainties involved in radioactive waste management governance.

What information do you think would help communities engage with the MRWS site selection process?

Information on the socio-economic benefits that a host community will receive should be produced through participatory, deliberative scenario building and assessment processes which could be facilitated by the independent body suggested above. These processes should involve a comparison between qualitatively contrasting and jointly elaborated scenarios for the future of the relevant communities, including scenarios with and without the project. The impacts of these various scenarios should likewise be assessed collaboratively and openly, in order to ensure the quality, credibility and legitimacy of the assessment. The process should also include a comprehensive and open examination of the inevitable uncertainties concerning these impacts. Independent appraisals of the socio-economic impacts would be particularly important in order to minimise the risk of 'backfiring' that inflated promises concerning the alleged socio-economic benefits (job creation, economic growth, etc.) could generate. Without a reliable and diverse evidence-base in the form of ex ante assessments and scenarios, such promises are most likely to be used strategically in order to gain the acceptance of the local communities for the project. Once revealed, such failed promises might threaten the success of the project, and would certainly further undermine public trust in the governance of science and technology. In the same vein of ensuring trust, consideration should be given to how to provide assurance that, once agreed, any community benefit packages offered will be delivered. Providing information on how these packages will be developed, how communities will be able to participate in their development and what might be included may encourage other communities to express an interest (CoRWM 2009).

Finally, while the total cost of radioactive waste management options and the distribution of costs across society may currently not be among the key concerns of citizens, their importance is likely to increase as the project advances towards implementation. The same principles of diversity of perspectives, and the need to ensure the credibility and legitimacy of assessments evoked above in relation to benefit packages and socio-economic impacts apply here. Cost appraisal should pay particular attention to questions of intra- and intergenerational equity; the great uncertainties stemming notably from the extremely long temporal scales involved; and the tensions between the objectives of safety and cost minimisation. Again, postponing the assessment of complex, controversial and politically sensitive issues of costs into the future would risk undermining the very trust upon which the long-term viability of any waste management solution crucially depends.

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Consultation on Managing Radioactive Waste Safely: June 2013

Review of the Siting Process for a Geological Disposal Facility

Thank you for the opportunity to present our views on the site selection process that should be followed since the conclusion of West Cumbrian involvement in the recent site selection process.



The Swarthmoor (SW Cumbria) Area Quakers along with other Cumbrian Quakers, with the backing of our national standing body in Britain 'The Meeting for Sufferings' of Britain Yearly Meeting, took a rigorous part in opposing the failed site selection process and we welcome the Government reviewing its processes in a way which is open, honest, rational and cohesive, in order to obtain the necessary resolution to this problem of the nuclear waste legacy.

As a preliminary, we believe that it is necessary to recognise that we should not be starting from here. Part of the process in future is the honest acknowledgement that there are wastes that have been generated unnecessarily due to a lack of scientific expertise or misapplication of the technology. The short termism of management at various nuclear establishments, side-lining wastes and neglecting facilities, has later become part of the long term waste management problem.

Learning lessons from these mistakes helps us to reduce the possibility of mistakes in the future.

In our view the process in future needs to consider the following:

1. Finding the safest location and the safest design for the disposal facility where there is the highest chance of producing a robust safety case MUST be the overriding motivation for the process. The utmost safety of future generations of all the peoples in the British Isles, and therefore by definition our geographical neighbours too, must be paramount.

This must be the goal, and not current political or scientific convenience and economic constraints.

2. The issue of nationalism needs to be acknowledged and explicitly countered. There have been statements in some quarters that nuclear waste cannot and will not be accepted in a devolved state. In this small group of countries forming the UK the nuclear process in all its positive and negative outcomes has been followed on behalf of the whole of Britain, producing waste materials that need to be kept safely on behalf of the whole community for tens of thousands of years. It must be acknowledged that should these wastes be mismanaged, and be deposited in geologically unsafe ground in untested and untestable engineering, then all peoples of these islands will reap the consequence in the future, regardless of geography or future national boundaries. So nationalism should be specifically excluded as a constraint upon the process.

To look at national boundaries rather than the safest geology places all future peoples of these islands in jeopardy.

3. We think it is irrelevant that a large proportion of the waste is already stored above ground in Cumbria. A significant proportion is not and transporting currently stored waste from Sellafield to a safe repository elsewhere is manageable and affordable relative to the cost (in economic and environmental terms) of transportation of the remainder of the waste to a potentially unsafe site in Cumbria.

The risks to the environment in the transport phase, which can be carefully planned and programmed, cannot outweigh the environmental risks posed in the many thousands of years following completion and closure of such a facility in sub-optimum ground.

4. The decision-making process on new-build nuclear power must not be allowed to constrain the waste disposal process. One of the drivers of the failed site selection process was the government policy advocating new-build nuclear stations. We take no position on the issue of new-build as part of this consultation. However we do believe that the nuclear waste legacy is so important, and is a significantly greater problem than any additional quantity of waste from any new build reactors, that the resolution of the legacy should not be used as a pre-condition for decisions on new-build.

The dangers of the wrong decision on the waste legacy far outweigh the usefulness of the linkage between such a decision and the authorisation of nuclear new-build.

The linkage once suited both the environmental movement and politicians but if new-build were to go ahead the worst of all worlds would result from allowing this issue to force a hurried and potentially unsafe decision on waste disposal. More time taken now to make the right decision would avoid potential devastation of future peoples who would have to live with the legacy of that wrong decision.

The safe management of spent fuel from new-build reactors will need very careful – and separate - consideration. This issue should therefore not constrain the decision process for a facility to contain the legacy waste.

5. The profound dishonesty of the failed siting process has always been transparent but needs to be recognised to avoid further mistakes, if the new process is to be robust. We point to the following examples exposing the hypocrisy of the previous process:
 - a) The linkage between a refusal by the Cumbria County Council on furthering the (now failed) process and the halting of new-build, vouchsafed by politicians, their scientific advisors and by the media, implies a dishonesty in the process – how can the outcome not be pre-determined or pre-empted if such a linkage is made by those advocating the site search?

- b) That there was “no plan B to the Cumbrian option”, as stated publically on several occasions by site search officials, similarly implies in practice a complete lack of a rigorous, open-minded critical process.
- c) The often-quoted statement that “we are following international guidelines on geological selection criteria” is blatantly untrue.

This development in the UK, would have been, and may still be, perhaps the largest single purpose built nuclear waste facility in the world, the size of a small city. Neither Russia nor the US has created such a facility. The only comparable process has been in Finland and Sweden. In these countries the geological integrity of the ground was the over-arching first parameter. Only then was the issue of voluntarism introduced.

This great dishonesty in the previous site selection process must be a matter of history.

- 6. We suggest there are lessons to learn from the Swedish and the Finnish examples but they are clearly not the ones that the failed process tried to draw.

We suggest the right lessons from Sweden and Finland are fivefold:

- a. As noted in point 1 above, the search, based upon internationally-agreed selection criteria for the appropriate geology, from sites available throughout the British Isles, has to be overwhelmingly the most important safety criterion. This underpins all other aspects of the decision process.
- b. That in Sweden and Finland there is indeed a rational debate and a national consensus as to the need for the process. We consider this has not been apparent as yet in the UK because of inter-party and nationalist point scoring, by the new-build linkage complication, and by over-concentration on the environs of Sellafield by all the parties involved as the “obvious” option.

This latter aspect was identified as irrational and profoundly wrong by the Inspector in the report of the NIREX Inquiry.

- c. Given a. and b. above, and consequent trust in the process, in Finland and Sweden voluntarism and community involvement then did indeed have a role to play.
- d. Given trust in the process, even major towns in Sweden (Uppsala) and in Finland (Rauma) can live with waste disposal facilities in close proximity. A similar situation in this country (with major towns comfortable with close proximity to waste disposal facilities) would be a major political coup.

- e. Economic and social benefits – planning gain, a well known concept of community benefitting from major planned development – is warranted after site selection has been narrowed down to a locality. However, presenting such community benefits as part of the initial decision-making process amounts to bribery; to bribe a current population to accept a development that needs to be safe for thousands of years is immoral and should not be part of the process. This too was flagged up in the NIREX report.
7. From point 6a above it follows that some areas of the country should be specifically excluded – and some have already been so excluded. A major aspect of the site selection process in future has to recognise that we cannot rewrite history nor readily reclassify geology. Those areas, including Cumbria, that were excluded in the past for the search for such a repository because of their unsuitable and unpromising geology are well known and cannot be resurrected now because they would be more convenient, or cheaper in the short term, or more politically acceptable at the present time, than other areas. This history cannot be expunged and geological reality cannot be reordered.
8. A clear, consistent, rigorous and open planning process that gives sufficient weight to a coherent national strategy on nuclear waste management is essential.

It is no use pretending that a community will readily volunteer to accommodate such a facility. It is, above all dishonest, not just naïve, and it promotes profound cynicism.

The reality is that in the UK we are used to residents and pressure groups being well organised and politicians are also used to backing them if it is not to lose them votes. However, unpopular developments are implemented (high speed rail, road developments, airport runways) of far less profound social and historic importance, providing they stand up to planning and judicial scrutiny. The nuclear waste process to date clearly has not done so. Given a coherent and honest process we think this is the only way forward.

We Cumbrian Quakers are clear that if Cumbria had been the best place on safety grounds to bury the waste, this is where it should be. However we know it is not and the safety of generations of communities yet to come has to be our priority.

9. We are in a period of potentially rapid climatic changes and nor we can we predict very far ahead the economic health and social cohesion of our communities. Therefore this current process of decision making and the planned management of the resources to resolve the waste legacy must be robustly honest and transparent in its procedures. Its eventual implementation must be rigorously followed with the resources committed long term to ensure completely safe implementation and closure.

I hope you consider the above gives a coherent response to the question of a new approach to the siting process. We consider the process can be made more honest, can move forward and can even be healing in its progress rather than adversarial. In the short time we have available to respond to your consultation we cannot spell out further to you the way forward but based on the forgoing,

with a huge investment of truth, honesty and integrity, we think that progress can and should be made.

Politicians in recent times have a poor record of delivering truth, honesty and indeed competence (see the banking/ financial crisis bringing us to near penury) and so it is incumbent on spiritual communities like our own, Quakers, and others, to step forward and be involved.

Please be assured we, as well as other spiritual communities, as opposed to those with vested political and economic interests, are willing and ready to take part in this process crucial to the future well-being of all peoples of these islands.

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REDACTED

Nuclear Issues sub-group, 8th June, 2013.

Swarthmoor SW Cumbria Area Quaker Meeting.

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THE GEOLOGICAL SOCIETY OF LONDON

RESPONSE TO DECC CALL FOR EVIDENCE: MANAGING RADIOACTIVE WASTE SAFELY (MRWS) SITING PROCESS

1. The Geological Society is the UK's learned and professional body for geoscience, with more than 10,500 Fellows (members) worldwide. The Fellowship encompasses those working in industry, academia and government with a broad range of perspectives on policy-relevant science, and the Society is a leading communicator of this science to government bodies, those in education, and other non-specialist audiences.
2. The call for evidence is broad in scope. A wide variety of views has been expressed by various Fellows of the Geological Society regarding the use, planning and communication of geoscientific work in the existing MRWS siting process, and how these matters might be handled differently in future. As a result, this document does not represent a corporate 'Geological Society view'. Rather, it sets down some observations about our understanding of DECC and NDA's objectives and emerging plans for a revised siting process. It draws in particular on discussions which have been held over the last few months between Fellows and staff of the Geological Society, NDA staff and advisers, and DECC staff.
3. We understand that it is intended to provide more and better geoscience information at early stages in the siting process, to support understanding of geological disposal and informing communities' thinking about whether to enter and continue in the siting process. Fellows of the Society who have spoken with us about this matter strongly support this objective. We are pleased that careful attention is being paid not just to what information will be made available at each stage, but also to how it is to be communicated.
4. We understand that communities will be able to learn about the process and access relevant geoscience information during an informal learning stage, before signalling any intention to participate in the process. If done well, this could contribute significantly to communities' interest in moving ahead in the process. As we have pointed out in other consultations and discussion relating to MRWS, paying proper attention to geoscientific factors in decision-making about radioactive waste management, and to communicating the supporting science, should underpin public engagement, confidence building and voluntarism. Geoscience and public engagement should not be seen as competing factors to be 'traded off' against each other.

5. Provision of information about the regional geology of the UK in a form accessible to non-specialists in potential volunteer communities prior to their entering the process should help them to understand whether there are geological settings in their locale which may be suitable for a geological disposal facility (GDF). Given the range of potentially suitable geological settings, this may prompt communities which would not otherwise have considered entering the process to do so. We understand that it is intended to use the content of the BGS Regional Guides as the basis for this information, rewritten for a less geologically expert readership. This is a sensible approach. Careful attention will have to be paid to how best to communicate this content, both using text and images, and possibly other means such as audio-visual and interactive content.
6. We understand the rationale for the decision not to draw up and make public a map of areas of the UK which can be ruled out as the location of a GDF on geological grounds, or whose geology is thought to be more or less suitable. Maps are nonetheless a powerful means of conveying geoscience information more generally, at this and other stages in the process. NDA and others involved in geoscience communication in the MRWS process should not be unduly nervous of using maps (for instance, for fear of being perceived as overly prescriptive). There is also scope for innovative forms of visualisation and communication of geoscience information to be deployed, and NDA should seek to draw on a wide base of expertise in geoscience communication.
7. To complement information on the regional geology of the UK it is important that, from the outset, information is made publicly available in an accessible form on the functions that the geosphere will play in any GDF, the requirements this places on the geological setting, and the types of geological setting which can meet these requirements. It would also be valuable at this stage to acknowledge what is uncertain or unknown about the subsurface, and how it is intended sequentially to address this uncertainty as the siting process continues. Only by considering these types of information together can a local community develop an understanding of the prospect of there being suitable geological settings for a GDF in their area, and confidence in the geoscientific work which will underpin the siting process.
8. We understand that once any community enters the siting process, it is intended at an early stage to prepare a high-level report on the geology of the area (and another on socio-economic considerations). This is a welcome proposal. Fellows of the Society have expressed a variety of views on the suggestion that these geological reports be based on a BGS model to be constructed principally using existing fence diagrams and a limited set of 'golden spike' boreholes across the country. We would be pleased to provide further comment on this

proposal once we understand better the detail of how it is to be implemented. The challenge is to build as accurate and reliable a three-dimensional model as possible based on limited data. As is the case under the approach proposed, such a model may depend on other existing models – fence diagrams themselves being two-dimensional models/interpretations of data. It is important not to reify the fence diagrams or other meta-models – that is, inadvertently to invest in them a concrete reality that they do not have. They are useful only insofar as they contribute to the reliability and accuracy of the eventual three-dimensional model, and it should always be borne in mind that using an alternative methodology and different meta-models would lead to a different end result.

9. We are pleased that NDA Radioactive Waste Management Directorate is strengthening its in-house geoscience (and geoscience communication) capacity, and is giving careful thought to the staffing, internal skills and external expertise it will need to draw on as the process moves forward. This will be particularly important if NDA is to take on an explicit advocacy role both for geological disposal in general and for local communities' participation in the siting process.

5 July 2013

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

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Organisation / Company	The Immobilisation Science Laboratory, The University of Sheffield
Organisation Size (no. of employees)	REDACTEDREDACTEDREDACTED
Organisation Type	REDACTEDREDACTEDREDACTED
Job Title	REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED REDACTEDREDACTEDREDACTED
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Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

We believe that the Managing Radioactive Waste Safely (MRWS) process represents a credible approach to long term management of the UK inventory of radioactive waste. We see no reason to abandon the community site selection aspect of the MRWS process, but there are a number of essential improvements in three key areas, which should be considered. These focus on: building a more robust post-closure safety case, principally by addressing issues of conservatism; increased community engagement, specifically pertaining to the safety case and economic benefits; and streamlining of the MRWS decision making process. We detail these issues below.

1. Scientific Case

The key reason cited by the Cumbria County Council for withdrawing from the MRWS programme was the question over the suitability of West Cumbria's geology for siting a nuclear waste repository.

Disposal in crystalline rock, such as the Borrowdale Volcanic Group in Cumbria, has been identified as a suitable geology, similar to potential repository locations in Sweden and Finland. As such, the Nuclear Decommissioning Agency (NDA) have outlined an environmental safety case¹ detailing the design of multiple engineered barriers (including wasteform, canisters and backfill) to retard radionuclide migration. However, the NDA state that it is not possible to choose the repository scenario and engineered barrier design until the site has been selected, and hence the geology is known. Indeed, detailed studies of the repository engineered barrier system are not planned until stages 5 and 6 of the MRWS process, when the repository site will be investigated through a borehole programme and subsequently excavated.

In our opinion, the lack of an upfront detailed scientific case for the performance of engineered barrier systems is a key failing of the MRWS process. In order for communities to have confidence in the MRWS process, building the safety case cannot be left until late in the process, and should become a key feature of the earlier stages. Acknowledging that a full repository safety case does rely on local geology, the early case should emphasise the design of safe engineered barriers, supported by a rigorous programme of scientific experimentation to predict with confidence their safety functions, and how they will behave with time. This will be crucial in engaging communities in the MRWS process, as even at an early stage, confidence in the post-closure safety of the repository is central. We believe that this scientific knowledge is currently absent, but is essential to enhance the post-closure safety case and therefore in improving public confidence.

Owing to the lack of this detailed case, the other principle scientific failing of MRWS has been a set of conservative assumptions about the performance of potential engineered barrier systems, which have been unsuccessful in convincing communities of the safety of a potential repository. Indeed, this conservative approach was noted in a previous failure of the UK authorities to site a Rock Characterisation Facility in Cumbria; the planning inspector commented that the *"lack of adverse, as distinct from a conservative, interpretation... [was] an unfortunate omission from the emerging safety case"*², when specifically considering the engineered backfill material considered for use in the intermediate level waste repository (known as NRVB).

Therefore, it is our recommendation that developing a detailed understanding of the behaviour and performance of engineered barriers, to be presented to the volunteer local authorities, should be brought to an earlier stage of the MRWS process. We believe this will boost public confidence in the post-closure safety case for the disposal of radioactive waste in an underground repository, and encourage engagement in the site selection process. Understanding a range of engineered barrier designs, suitable for a variety of host geologies, will be a sound investment for the MRWS process; potentially enhancing public confidence in the disposal concept in other (i.e. non-Cumbrian) areas of the UK with potentially suitable host geology.

¹ Cumbria County Council, 1996. RCF Planning appeal by Nirex, pp 241-242

² Geological Disposal: Generic Environmental Safety Case main report. Nuclear Decommissioning Authority Report, NDA/RWMD/021, December 2010.

Community Engagement

If the current approach of volunteering and partnership is retained, which we believe the government was right to reaffirm, it will be necessary to comprehensively re-evaluate engagement with potential host communities.

In the early stages, greater engagement will be required with communities which hold potentially suitable geologies, to encourage entry into the site selection process. In order to attract communities, this must include a more detailed disposal design and scientific case to demonstrate repository safety, as discussed above. A greater emphasis on developing generic engineered safety systems suitable for potential host geologies will strengthen the GDF siting case, and be an important tool in demonstrating to interested communities that we can predict and control the migration of radionuclides to ensure repository safety. The effective communication of a robust

scientific safety case will be important in engaging members of interested communities to proceed with the MRWS process.

One of the key aspects of the MRWS programme is investment in the form of a community benefits package, although government has not given a decision on the details. This lack of detail is a failing of the MRWS process, eroding community confidence in the ability and willingness of government to deliver a benefits package commensurate with hosting a facility of the national importance of a radioactive waste GDF. Although government is right to suggest that *“any Benefits Package should be developed jointly between communities and, the government ... taking into account local needs, and issues of affordability and value for money³”*, the ambiguity surrounding these benefits in the early stages of the MRWS process harms community engagement. The detail of the nature and extent of community benefits should, therefore, be addressed early on in the MRWS process, and encourage investment in long term, sustainable improvements which address local needs. Additionally, necessary infrastructure improvements required by the GDF need to be emphasised to the community as an additional benefit, alongside the extensive and guaranteed investment in the local area which will form the community benefit package.

³ <https://www.gov.uk/managing-radioactive-waste-safely-a-guide-for-communities#why-should-local-communities-be-interested>

MRWS Process

As noted above, the current MRWS process leaves building a detailed science case for the performance of the repository until the later stages (5 and 6). We recommend that in order to retain the support of communities throughout, there is a need to build confidence in the safety of the GDF earlier on. This should be combined with simplification of the process to include fewer stages, with a more substantial evidence gathering process at each. In accordance with the issues we raise above about the scientific basis for a robust post-closure safety case, we note that one of the failings of the process in Cumbria was a lack of data to support GDF feasibility, making it difficult to provide evidential arguments against groups that proposed the geology was flawed.

Another reason for Cumbria county council's concern was a lack of legislation to protect their right of withdrawal later in the process, particularly once the detailed evidence stages had been completed. Although communities are free to withdraw from the volunteer process whenever they choose, these fears may be tempered if legislation could protect the right to withdraw. Acknowledging and protecting the right to withdraw is an essential part of strengthening community confidence that the MRWS process will be administered fairly and transparently.

There will be a natural cooling-off period following the decision of Cumbria county council to withdraw from the MRWS process. We believe that this time is an ideal opportunity to invest in research, development and design activities with the objective of developing a more robust engineering safety case for the disposal of radioactive waste in a geological facility. This will be key to engaging and retaining interested communities in the MRWS process, and building public confidence in the safe disposal of UK radioactive waste.

Please note that the opinions expressed here are those of the contributors and do not necessarily reflect those of our employer or research sponsors.

Response form

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The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: The Managing Radioactive Waste Safely team
 Department of Energy and Climate Change
 Room M07
 55 Whitehall
 London
 SW1A 2EY

Name	REDACTEDREDACTEDREDACTEDRE
Organisation / Company	Underskiddaw Parish council
Organisation Size (no. of employees)	REDACTED
Organisation Type	REDACTEDREDACTEDREDACTEDRE
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Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

This response is from Underskiddaw Parish Council in the District of Allerdale in the County of Cumbria. The Members of the Council studied the Consultation Document in detail, including a good deal of the background material supplied, they attended meetings and roadshows, and held an open meeting for Parishioners which was well attended. The outcome of this was that the Council made a response to the Consultation in the form requested and stated that they were unconvinced of the case for proceeding into Stage 4, and recommended the DMB's should decide to go no further.

Underskiddaw Parish Council (the Parish Council) agrees with the government policy to store nuclear waste in a GDF. They do not agree with the Government that a **totally voluntary** approach is the correct or most effective way to achieve a chosen site.

In order to work out how to improve the process it is necessary to look at what went wrong and to consider the reasons why the Voluntary approach, as practised in the West Cumbria consultation, is not correct

1. **It does not work.** Since the White Paper was produced in 2008 there have been 2 volunteers in 5 years. Voluntarism as practised so far does not appear to work.
2. **Safety was not the prime consideration.** The first criterion for a site should be that it is safe, not that it is willing. To spend time considering a volunteer area which is unsafe means that ultimately the GDF cannot be built there and so money, and more important **time**, is wasted trying to square a circle.
3. **Existing knowledge was ignored.** The criteria for suitable geology for a GDF have been internationally discussed and are reasonably clear : stable flat base rock, a depth of sedimentary cover, flat surroundings, and no active water systems (such as mountains create) running through the site. Once people realised how big the GDF would have to be it became clear that Cumbrian conditions didn't fit the picture. There was a lot of talk from those supporting a GDF in Cumbria about how little was known about the geology of Cumbria. It must be one of the most studied places on earth, even though some of the records have been lost, and there are hundreds of retired mining engineers, geologists, scientific academics and enthusiasts living here who couldn't believe what they were hearing.

4. **Decision making was entrusted to bodies which did not have the status or resources to deal with the responsibility.** Towards the end of the process it became clear that the only likely rock-type for a GDF (although not rock formation and surroundings) was in the National Park. In order to build a facility such as this in a protected area Copeland BC would have to show that this was the only suitable place for it. How is a Local Authority the size of Copeland with limited resources in every respect equipped to carry out the comparative studies required to demonstrate this? The appropriate level at which this matter should be decided is the national government. Only the Government has the resources and powers to carry out the comprehensive and comparative studies which are needed. It should step up and take the lead and not rely on soft options by passing the buck. This decision needs to be taken in the national interest, and a local authority does not have the scope or the remit to do this.
5. **Voluntarism is not always democratic.** The effect of entrusting the decision whether to proceed to District and County authorities is to enable a larger authority to “volunteer” to have a GDF situated in a host community which may not wish to have it at all. To the people most affected the process is therefore far from voluntary.
6. **The process generated high levels of mistrust.** This arose from the many ambiguities in the information provided, including responses by DECC to questions from the Partnership; the level of competence of the existing agencies (NDA etc) was called into question; many vested interests became apparent and others were suspected; the Right of Withdrawal which appeared to be unlimited and guaranteed at the outset began to dissolve into uncertainty as it was questioned – culminating in the Government’s failure to put it on a statutory basis in the period between September 2013 and February 2013.

Question 1 – what aspects of this process could be improved.

The Government must put the criterion of appropriate geology, and thereby safety, first. The Government should seek independent views at the highest level of expertise, and without any vested interest in the outcome, to review the existing knowledge about which areas have geology and geomorphology suitable for a GDF. If such experts consider that the existing level of knowledge is not clear enough, then the Government should commission a survey which would seek the evidence to identify areas suitable for a GDF. This must be a reputable survey : independent, authoritative and capable of being internationally recognised and respected. Spending money on this will save money later, because it should be so good it is indisputable.

Once these areas have been identified the Government should rule out any protected areas to avoid the burden of proving that any such areas are the only suitable site.

Only at this stage is it sensible to introduce the principle of voluntarism – and expressions of interest can be sought from the remaining suitable areas.

The government should also work on detailing the information which any volunteering body will need to have. Information should be clear about : safety; the physical impact on the community where it might be sited – its size, what will be visible, what would happen to the spoil, what kind of interim disruption would there be; the impact on the lives of a volunteer community; a clear and guaranteed package of benefits; the safety of the installations; the kind of waste to be deposited and over what timescale and so on. In short, the majority of questions which were asked in the West Cumbria process, and which we were told we would have to wait till later for the answers, would be answered clearly at least in outline.

The Right of Withdrawal, which in the West Cumbria process started off apparently clear but on examination became increasingly muddy, should be guaranteed to the host community by law.

Question 2 What would attract communities to volunteer & to stay in the process

If people are dealt with openly and honestly and have a fairly clear understanding of what is involved, and if the reward for hosting a GDF is generous, they are more likely to volunteer, than for the unknown and unclear. They need to know absolutely clearly up to what point they can withdraw, so that they will be less hesitant at moving through the process.

In order to remain in the process Communities need to be assured by experience that the experts and agencies with whom they will have to deal are clean and transparent, and that if they have a vested interest it is clearly declared at all times. They need to know that the agencies are competent – that they can cope with the job of looking after nuclear waste safely, and the re-assurance about this needs to come from outside independent bodies, not from the agencies themselves. The Government needs to do some work on this – building up the Agencies whose failings became apparent during the interrogation in the West Cumbria consultation.

Communities need confidence in the integrity and competence of the bodies who will manage the whole project, and this confidence will only come from these qualities being demonstrated, not from being told they exist. Even from what came out from the West Cumbria consultation, and the more recent Audit, there is a great deal of work to be done here, and there is no place for complacency. In this period after the collapse of the process in West Cumbria it would be good to have some evidence that building up of competence is going forward.

Decisions should not be made on the basis of dubious polls, but by a properly conducted vote.



Unite Submission to the Department of Energy & Climate Change Call for Evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

Introduction

This submission represents the views of Unite the Union. Unite is the UK's largest trade union with approximately 1.5 million members working in a raft of industrial sectors including construction, energy, manufacturing, engineering, transport, information technology, finance, local authorities and the National Health Service.

Unite is the largest Trade Union in energy with extensive membership in all aspects of the UK nuclear sector as well as in other forms of power generation, distribution, retail and metering.

Unite is also the sole or joint signatory Trade Union for every national collective agreement in the UK construction & contracting industry. For the purpose of this submission it should be noted that Unite members in the engineering construction industry fall within the jurisdiction of the National Collective Agreement for the Engineering Construction Industry (NAECI).

Decision Making Process



Unite is fully aware of the recent respective decisions made by Copeland and Allerdale Borough Councils and subsequently by Cumbria County Council.

Being particularly mindful of the role that a geological disposal facility could play in the UK's nuclear renaissance, Unite are concerned about the potential consequences of the decision made by Cumbria County Council.

However, at this stage of the process Unite welcomes the stated intention of the Department of Energy & Climate Change to review the siting process for a geological disposal facility. Unite also look forward to making a formal submission to the full consultation on this issue which we understand will follow later this year.

Unite Position

- Unite would strongly encourage government to press ahead swiftly with identifying further potential sites for a geological disposal facility.
- Being an organisation based on the principle of democracy, Unite are fully supportive of the current government policy of 'voluntarism and partnership'.
- It is now clear from experience that some communities will readily recognise the substantial benefits of hosting a geological disposal facility whilst others will be less convinced.
- Unite hold the view that additional resources need to be deployed and co-ordinated to encourage positive engagement by local communities in the siting process.
- Unite believe that such resources need to be made available from the outset of the process to bring the potential economic benefits to the attention of the respective local communities.
- Unite remain available to positively engage with all stakeholders and extol the benefits of economic growth and job creation that will result from the eventual siting of the geological disposal facility.

Finally, Unite would welcome the opportunity to be kept informed of developments with the Managing Radioactive Waste Safely programme and do not have any requirement for this submission to be kept confidential.

For further information please contact:

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address: radioactivewaste@decc.gsi.gov.uk

Or by post to: . The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	URS
Organisation Size (no. of employees)	
Organisation Type	
Job Title	
Department	
Address	
Email	
Telephone	
Fax	
Would you like to be kept informed of developments with the MRWS programme?	Yes

Would you like your response to be kept confidential? If yes please give a reason

Yes – We are happy for the response contained within this form to be publicly available. However, in addition to this form, we have submitted a separate paper outlining our strategic recommendations for re-focusing the MRWS process which we would ask is treated as commercially confidential.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

- We firmly believe that deep geological disposal is the safest and most appropriate solution for dealing with the UK's Higher Activity Wastes (HAW).
- Securing a site(s) is an urgent priority if intergenerational inequity is at least to be minimized or, at best, avoided.
- The prospect of moving the 60 plus % of the UK's existing inventory of HAW from Sellafield to another part of the country appears unsustainable on safety, security, environment and cost grounds.
- A way therefore needs to be found to allow the local communities close to the Sellafield site i.e. those in the areas covered by Copeland and Allerdale Borough Councils to re-engage with the MRWS process as a minimum in relation to the HAW currently at Sellafield.
- There needs to be an absolute acceptance on the part of volunteer communities that both legacy HAW and HAW arisings from a new nuclear build programme will be disposed in same deep geological disposal facility.
- The right for a Community to withdraw from the current MRWS process at any point before Stage 4 needs to be place on a quasi-legal or legal basis. It is clear from Cumbria County Council's decision earlier this year that such an assurance in a letter from a Minister is insufficient for the purpose.
- Any benefits package for a community willing to host a GDF should be linked to infrastructure, public services or environmental improvements in the volunteer area. Socio and economic considerations should be taken into consideration when agreeing the level of support.
- The risks, benefits and decision-making process in relation to the GDF should be made clearer.
- Third party knowledgeable, independent, advocates supporting the GDF concept should be identified and be available to both the volunteer community and to counter any negative campaigns. Such an arrangement worked exceedingly well and gave UK citizens great comfort following the Fukushima accident in Japan.
- There should be more input and interventions from the independent nuclear regulators most notably ONR and the EA on safety, security and environmental matters.
- Notwithstanding the comment above about the communities closest to the Sellafield site, there should be a renewed effort to identify other potential volunteer communities.
- Linked to that, there is a need for greater public awareness and understanding of the issues related to the current arrangements for the storage of HAW in the UK, the need for a long-term disposal solution and the scientific case supporting a GDF. The potential implications on the UK's nuclear new build programme, our energy security and transition to lower carbon forms of generating electricity should also be discussed in this context of for not securing a long-term solution for HAW. It also needs to be made much clearer what is actually meant by a 'community'. A more precise definition needs to be constructed.

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

- **What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?**

The application of the MRWS process at present does not provide the near term incentives for communities to start and then maintain their involvement throughout MRWS, instead providing as yet undefined benefits (both in terms of scope and value) at an indeterminate point in the future after a final site has been selected (MRWS stage 6).

Any decision makers considering an EoI and / or DtP will need both visibility and guarantees of earlier and more tangible benefits realisation for that community in order to achieve local political and public support. Such a staged benefits process, of continuously increasing value that is enough to make a tangible difference to that community, even if it subsequently pulls out, (but with fewer communities as the MRWS process progresses), is more likely to encourage communities to get involved initially and want to stay involved.

A significant part of this would include more up front work on developing what these staged benefits would mean for specific communities so that local decision makers and members of the public can undertake their own qualitative assessments of whether initially joining and then remaining within the MRWS process would be beneficial for them.

Too often, the benefits package discussed was too vague and distant that it was difficult to see how members of the public and / or decision makers could make positive decisions with all the uncertainty that accompanies such a decision, when the benefits were scheduled to be agreed or realised for 20-30 years after making a DtP.

As an example, when Shepway was considering making an EoI, potential sea defence work that could have been part of a benefits package was highlighted that would not necessarily have been relevant to any other community. Within a staged benefits package process, a community such as Shepway that made an EoI and / or a DtP but then withdrew or was excluded on technical grounds, would still receive tangible community specific benefits (such as 'financial support' for a sea defence scheme) as a recognition for their participation within MRWS, but less than that received by the final community selected.

As an example only of the staged monetary values that could stimulate a 'big bang' degree of interest in the MRWS process;

- each community that made a formal EoI could be awarded a value of £5 million (up to 10 communities)
- each community that makes a formal Decision to Participate could be awarded £10 million (up to 4 communities)
- each community that progresses to the site investigation stage could be awarded £25 million (2 communities only)

This would mean that any community progressing all the way to the end of MRWS stage 5 would benefit to the tune of £40 million irrespective of whether they decided not to progress and / or were deemed not suitable

following site characterisation. This funding would need to, and benefit from, being separated from discussion on the eventual benefits package for the community that final hosted the GDF (as part of a wider discussion with the Treasury), but would provide a clear incentive for communities to get involved and want to stay involved.

Certain conditions would need to be attached such as whether a weighting of an MRWS stage award would be needed e.g. 60% paid up front, 40% if the EoI stage was completed within 18 months including BGS screening and public consultation after which the award value would start to decrease. However, it would be important that each community was allowed to utilise its staged award as it saw fit and was the most appropriate to that community.

Recognising that such sums of money are not inconsiderable, it is worth noting that providing limits were placed on the number of communities that made, EoI's, DtP's and a decision to progress to MRWS stage 5 (as outlined above), the maximum total award value would be £140m. However, for this value to be reached would mean 10 communities would have had to actively make an EoI, something that has not happened to date.

In respect to funding such an approach, equivalent funding could be withdrawn from the NDA for ongoing decommissioning work throughout the estate on an 'as needed' basis. Although the potential £140m outlined is significant, there would be a considerable timing phasing of this that could be profiled across the 10-20 years and as mentioned previously, the total would only be required if 10 communities made an EoI.

Ultimately, the provision of a viable GDF would provide a focus and clear end point for the UK nuclear decommissioning industry that is currently lacking, to which £140m to get things moving could be considered a worthwhile investment.

In respect to the process for identifying communities within whom to engage with, I feel that whilst EoI's should still be encouraged from anywhere within the UK (excluding Scotland), the Government could be more proactive in undertaking early geological and environmental screening to identify potential suitable areas as occurred in the Swedish / SKB programme.

Previously, Nirex undertook the same process to down select certain communities on geological grounds but this was not undertaken in an open and transparent manner. This information is likely to be still relevant today and could be pursued further. In the same manner, this national screening could then be overlaid with environmental considerations similar to the Strategic Environmental Assessment (SEA) undertaken by the Department of Energy and Climate Change (DECC) as part of the siting process for new nuclear build locations.

Such a process would need to be undertaken at a very coarse screening level, with a view that between 12-18 communities would be identified (based on geological and environmental grounds combined). Such processes already occur through the UK for major infrastructure projects.

The vital part of such an approach would be the communication that this in no way invalidates the voluntary nature of MRWS for any communities 'excluded', or that any community identified is not being pre-judged as formally entering the process. However, it would provide DECC with a focus for subsequent MRWS engagement on a smaller number of specific communities, instead of the previous approach which has been to passively wait for communities to come forward of their own volition, or focus on West Cumbria which has now failed to progress on two separate occasions.

I believe there is also a much greater role for the use of Health Impact Assessment (HIA) as a vehicle for stakeholder engagement tool to identify, quantify and enhancing the local benefits a GDF would bring whilst helping recognise and mitigate where possible any detriments of health. This will be particularly important in regard to the mental stress and anxiety associated with the fear of radiation having a much greater effect to populations compared to actual radiation doses.

HIA would also be of particular benefit in 'localising' stakeholder engagement discussions, which is covered in more detail further on.

- **What do you think could be done to attract communities into the MRWS site selection process?**

The MRWS process is likely to benefit from a more pro-active approach by Government to go out and identify and then engage with local communities (see proposed coarse screening process outlined above). To date the level of interest from communities around the country has been low in comparison with other international programmes (Canada currently has 21) and a different strategy has to be adopted where there is a more targeted approach leading to a much greater level of awareness. Geological disposal is a very complex issue and only a few 'nuclear' communities have even considered it to date, but for various reasons they may not contain the best locations for a potential GDF.

This would also involve a more positive message about what the benefits the MRWS process / an eventual GDF would bring to a community (see comments above re: staged benefits packages). Based on the experiences of the previously failed Nirex, a very defensive, non-committal positioning regarding the GDF siting has occurred where a significant amount of effort has been spent considering specific wording and approaches to communication in order to appease and / or not antagonise individual stakeholders, rather than promoting the benefits of what the GDF, the associated infrastructure and subsequent localised wealth creation would do to a local community.

If a project truly has the 'buy-in' from local communities, then the momentum to get things moving would override concerns about the use of certain wording within documents (e.g. 'a' GDF vs. 'the' GDF).

The 'what is the effect on me' question has to be answered, and not just at the county or borough level; there has to be tangible benefits that individual members of the public can relate to. A few examples of these could be;

- council tax rebates for those living within an area that is considered 'affected'
- support for training, e.g. children of those living within an affected area having University tuition fees subsidised, preferential apprenticeship schemes, etc.
- up front clarification / policy on what compensation process would be applied / paid out to anyone whose home is affected by 'blight'; a key consideration for any home / landowners within a community.

- **What information do you think would help communities engage with the MRWS site selection process?**

A much more rapid and flexible approach to stakeholder engagement needs to be adopted throughout the entire MRWS process / future stages. So far, engagement has been very formalised, controlled and detailed but this would benefit from a simpler, faster, more flexible and positive approach / messages to counteract the negative and spurious detractions which can appear rapidly and regularly using a wide range of evolving social media and the internet, and where any claims can be made without the same level of underpinning justification and yet are rarely challenged.

These is especially true where the younger generation are much more aware of the messages being communicated through these media outlets, but are less likely to undertake the level of investigative diligence on the claims made.

More understanding of the MRWS process by the local population within communities (but not necessary more information) has already shown a more positive 'buy-in'. Surveys of individuals within West Cumbria and Shepway that engaged with the information available, attended local events and talked to DECC / RWMD representatives involved in the process, had a notably higher level support for progressing to further MRWS stages than those who did not engage as fully. To achieve this though will involve more 'time on ground' and a local presence and / or the employment of local people early on; an approach SKB in Sweden adopted with positive results.

In West Cumbria, the engagement was very focused via the community siting partnership with DECC / RWMD being kept at arms length. This resulted in a 'managed messages' approach to information provision and resulting over or under emphasis on certain topics.

Community groups representative of the local population (socio-economic / ethnicity / cultural, etc) could help build the necessary momentum from within the community if they felt the continued involvement with the MRWS process was something they would derive value from, which in turn would translate into votes for local and regional politicians who ultimately would need to make key decisions at the different MRWS stages.

In order to achieve this, there would need to be a much greater focus on truly getting to know who the local population is and what their particular drivers are in order to assess how any potential MRWS / GDF implementation could lead to tangible benefits for them.

Call for Evidence

Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility

Response form

Please use this form to respond to this call for evidence on Managing Radioactive Waste Safely: Review of the Siting Process for a Geological Disposal Facility.

The closing date for the submission of responses is **10 June 2013**.

Responses can be returned by email (preferable) or post.

Email address radioactivewaste@decc.gsi.gov.uk

Or by post to The Managing Radioactive Waste Safely team
Department of Energy and Climate Change
Room M07
55 Whitehall
London
SW1A 2EY

Name	
Organisation / Company	W Cumbria & N Lakes Friends of the Earth
Organisation Size (no. of employees)	0
Organisation Type	
Job Title	
Department	N/a
Address	
Email	
Telephone	
Fax	

Would you like to be kept informed of developments with the MRWS programme?	Yes
Would you like your response to be kept confidential? If yes please give a reason	No

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could

be improved and how?

•What do you think could be done to attract communities into the MRWS site selection process?

•What information do you think would help communities engage with the MRWS site selection process?

The nature, scope and remit of this consultation is of major concern. The fact that DECC appears to be unwilling to come to Cumbria to talk direct to residents and hear their views on MRWS now that the 3 year process has come to an end indicates a lack of respect for those of us who have already volunteered our time and efforts – some of us to a considerable extent. If voluntarism is going to work, then there must be a high degree of respect on the part of government for those who have themselves already taken the trouble voluntarily to respect a process that is being offered to them. Furthermore, to restrict inquiry to a consultation with written responses is to close the door to many people who are not used to expressing their views this way, yet who have experience that the government should recognise is potentially useful in showing the way forward for voluntarism.

In short, if government is serious about voluntarism, and if this consultation is an example of what it regards as good practice in engaging with people who have useful perspectives to communicate, then it will fail.

It also appears that, like the West Cumbria MRWS itself, this process has not been thought out thoroughly, but instead is being made up as things go along. MRWS in W Cumbria bore little resemblance to the stages set out in the original White Paper. As soon as invitations were issued to take part, the first 4 stages were all but abandoned, with one enthusiastic Council ignoring them completely and issuing an Expression of Interest almost immediately. The subsequent stages – where a Partnership was convened and facilitated - were more detailed than envisaged, perhaps to compensate for the absence of consultation prior to Expression of Interest. But they too represented a further departure over the implementation of the White Paper.

Therefore, seeking views on the stages outlined in the White Paper is not the same as seeking views on what actually took place in W Cumbria. The conflation of the two might even be regarded as tendentious, given that anyone who did not follow the process might be forgiven for thinking the White Paper was in fact actually implemented according to the way it was set out. And it might be further surmised that in seeking views specifically about the White Paper, DECC is not interested in what occurred in W Cumbria.

Like MRWS – both in terms of the White Paper and the process in W Cumbria - this consultation has not been thought through with regard to the basic concepts it deploys. Once again, it conflates 'communities' with 'decision-making bodies' – see para 6 above where it is stated:

“The fact that two local authorities in west Cumbria voted in favour of continuing the search for a potential site for a GDF demonstrates that communities recognise the substantial benefits that are associated with hosting such a facility – both in terms of job creation and the wider benefits associated with its development.”

If DECC wishes to engage with local authorities as agencies deemed to be acting on behalf of various communities then it should make this clear. But it cannot proceed on the basis that they amount to the same thing. In both Allerdale and Copeland where

favourable decisions were taken by Councils in cabinet, there were many communities - at the Parish and Town levels of local government and ad-hoc groups - which clearly stated they did not support continuing the process. The only evidence to support the above statement is that two Local Authority Cabinets and a small number of Parish / Town Councils recognised any benefits. A new initiative by DECC (June 6th 2013) on wind turbines makes a clearer distinction between local councils and local residents living near to proposed wind farm sites, giving residents greater rights over objecting. It is therefore evident that DECC is capable of conceiving of policy with more clarity as to the distinction between local authorities and 'communities'. It cannot with any credibility continue to conflate the two.

Thus, there has been - and seemingly continues to be - an absence of clarity of thinking and clarity of process. This could be rectified by an evidence-based and inclusive approach. There is a significant literature on public participation in decision-making, and on related experience from other countries which have begun to implement voluntarism both for nuclear initiatives and from major projects in other sectors. A review of this literature and experience – subject to credible independent peer review – would move debate forward in a constructive way. The results of a consultation exercise could form part of such a review, but it would need to be more systematic and inclusive than this one. It would need to include the views of those who have taken part in Cumbria but who are not accustomed to taking part in web-based written exercises. It would also need to include the views of those who did not take part at the time but later realised they had underestimated the significance of the process. A consultation framed like this one, with vague questions, muddled thinking, and a lack of attention to inclusion will not be helpful.

The final MRWS report highlighted a lack of trust as a fundamental over-arching issue in Cumbria. If this is to be rectified then DECC need to do a lot of work to demonstrate that it truly understands what is involved in voluntarism, and to show greater respect for those who it seeks to invite to volunteer. Without these, voluntarism will be impossible. The evidence from this consultation exercise is not encouraging.

Finally I offer below the text of a paper I presented to the DECC / NGO Forum in October 2012, over which the Forum continues to await an adequate response. This deals in brief with the major issues that were pre-occupying local people at the time when decisions had yet to be made - and which have yet to be answered.

**Briefing on current radwaste disposal & storage policy issues with special
reference to the GDF proposals
for**

DECC / NGOs Forum October 17th 2012

W Cumbria & N Lakes Friends of the Earth

Background

Following the unsuccessful attempt by Nirex in the 1990s to site a Rock Characterisation Facility in West Cumbria, there was a hiatus over nuclear waste storage and disposal. CORWM1 produced its findings in 2006 and Government then consulted over **Managing Radioactive Waste Safely**, publishing a **White Paper** in June 2008 with proposals to implement most of CORWM's recommendations (DEFRA 2008). This was followed by an invitation issued to local government to express an interest in '**volunteering**' to consider hosting a deep geological disposal facility (GDF). This time, high level waste and potentially spent fuel, and plutonium (if they become classified as wastes) were added to the intermediate level wastes for disposal.

Very shortly after the invitation was issued, **Copeland Council** (the Borough where Sellafield is located) decided to express an interest (July 2008). A Partnership structure was already established before **Cumbria County Council** – the second tier of local government) concluded a brief consultation on the matter, and followed suit. The neighbouring Borough Council, **Allerdale**, also consulted briefly and expressed an interest.

This resulted in the establishment of the **West Cumbria MRWS Partnership** which deliberated issues relating to the implementation of the White Paper's proposals for 3 ½ years, conducting a set of consultative activities and producing a Final Report in August 2012. The Report does not make recommendations, but instead invites the Decision Making Bodies (Copeland, Allerdale and Cumbria Councils) to consider its findings. All 3 Councils initially undertook to take their decisions as to whether to go forward to the next stage of the process **Stage Four: Desk-based studies in participating areas** on the same day, October 11th and they further agreed with the Secretary of State that both tiers of local government must be in support of going forward, not just one.

The initial discussion in Cumbria County Council on Sept 5th showed that the Partnership had failed to come to an agreed position, with a number of important issues that required further consideration. The full Council discussion on the matter showed little appetite for going ahead. On Oct 2nd the 3 Councils proposed a 3 month delay to DECC (Cumbria County Council 2012), in order to address several problematic issues identified by the MRWS process, some of which are outlined below.

The MRWS process in W Cumbria

While it is acknowledged that the approach of voluntarism and partnership has, as an experiment in public policy-making, met with some success, this briefing will concentrate on critiques of the process.

Geology

This is regarded as one of the most highly contested aspect of the process. Initial screening was not in relation to geological suitability, but just with regard to the risk from future intrusion for water and mineral extraction. Experts in geology have been critical of the approach on the grounds of (a) the lack of appropriate geological screening prior to the invitation to volunteer and (b) the unsuitability of the West Cumbrian area both in terms of its overall complex geology and with regard to the most promising candidate sites. These views have not been rehearsed and fully debated in public *within* the MRWS process itself, but instead in public meetings organised outwith the process. The final report contains no positive recommendation over the presence of geologically suitable sites, only a statement that 'not enough is yet known to be able to say that all of West Cumbria should be ruled out' (W Cumbria MRWS 2012: 104). This, too, is disputed given the extensive study of the area by Nirex and others.

Complexity and uncertainty of the inventory

Nowhere in the world is the prospect being considered of disposing of intermediate level waste, high level waste and potentially spent fuel and plutonium in the same place, or at least in close proximity. The presence of heat-generating wastes such as conventional spent fuel, and possibly even MOX spent fuel, is regarded as highly problematic. The proposals are therefore 'novel' and untested.

Moreover, the inventory has not been specified, as recommended by CORWM1. This means that the 'host community' does not know what it is signing up for.

The proposals have also shifted significantly from 'legacy' wastes from existing nuclear facilities – as recommended by CORWM1 – to encompass waste from new build reactors.

The W Cumbria MRWS report advises the three councils, deemed under the White Paper as the Decision-Making Bodies (DMBs) that should they decided to proceed with the process to the next stage they should secure legally binding agreements on inventory (W Cumbria MRWS 2012: 85).

Only one volunteer

West Cumbria has been the only place where an interest in volunteering to host a national nuclear waste repository has been expressed (two others, Shepway and Cornwall, decided against expressing an interest). This calls into question the basis of voluntarism because there is no debate about alternatives with regard to specific conditions, and there could be undue pressure on a single volunteer to accept a site.

In other countries where voluntarism has been implemented, there has been initial geological screening for the specific requirements for disposal / storage, before the volunteer stage and also more than one volunteer.

The MRWS White Paper

The White Paper itself has also proved problematic to implement. Firstly it is unusual for such a process to be guided by an instrument lacking statutory force. It is therefore unclear as to the status of actions that have ignored its advice, eg Councils that failed to consult, or who consulted less extensively as recommended in Stage One (DEFRA 2008 : 50) prior to expressing an interest, and more broadly the extent to which it should be necessary to follow its advice.

Secondly, the WP is unclear with regard to certain issues of definition and these have proved highly contentious. The main issue concerns the use of the term 'community' or

'host community' where in some cases this is equivalent to the term 'Decision-Making Body (DMB)' (ie Borough / County Council) and in other cases may refer to the community (or communities) at the candidate site.

Certain other aspects of the White Paper are also widely regarded as unsatisfactory, in particular the way that the Right to Withdraw from the process is framed. This is clearly vested in the DMBs, with local communities having only advisory powers. One result of this is that many Parish and Town Councils have taken votes on whether to proceed to the next stage and the majority have been clearly against.

Focus on GDF to the exclusion of interim storage

The West Cumbrian MRWS Partnership has been explicitly constituted to discuss 'the possibility of the development of a GDF in West Cumbria' (W Cumbria MRWS: 11). This specific focus on deep disposal has meant that all other aspects of 'managing radioactive waste safely' have not been explored. However, as CORWM1 pointed out, a GDF is only one element of an overall process which must embrace interim storage – necessary if only because of the long time-scales involved in developing a GDF (under the current timeline high level wastes would not go into a repository until 2075 and the final legacy wastes would not be emplaced until 2130). The exclusion of storage from the MRWS considerations means that current, and in some cases quite pressing, safety issues are not getting the attention they deserve.

Time-scales

Overall, there is a sense of time pressure over this issue which has not been helpful and which risks the proposals going ahead without the requisite R & D needed to underpin such a complex project.

The date for opening the GDF was originally envisaged as 2040, but it has been suggested by Government, and others, that this be moved forward to 2029, a date which the Nuclear Decommissioning Agency (NDA) does not believe it can meet.

The fact that Copeland Council expressed an interest within weeks of the White Paper's invitation meant that the MRWS Partnership was set up with very little attention to the White Paper's recommended Stage One, a preparatory phase.

The West Cumbria MRWS Process

Credibility

The near-absence of a Stage One preparatory phase meant that the Partnership was constructed in haste, with Copeland leading and others joining. An important opportunity was therefore missed for developing the potential membership's understanding of what this new type of process meant and what it would involve. Its Terms of Reference were never finally agreed, and there was insufficient deliberation over its *modus operandi*. This resulted in a lack of credibility in certain important respects. The use of independent facilitators was a considerable strength, and there can be little doubt that this was significant in enabling the Partnership to survive its 3 ½ years of deliberation.

Lack of trust was identified as an 'over-arching issue' in the Partnership's Final Report. This derived from submissions made to the Partnership in its final Consultation and it referred beyond the Partnership itself to relations with central government.

Dominance of local government

The presence of three local government partners as prime stakeholders (rather than one as envisaged by the White Paper) affected the way the Partnership was constituted. It meant that local government was dominant both in terms of the 3 Councils, each of whom had 4 member representatives and overall Partnership members (9 out of 17). If the National Park Authority is included, only 9 members out of 29 were not from local authorities.

Furthermore, the 3 Councils which had expressed an interest also officially support new reactors at Sellafield and therefore had an interest in 'solving' the nuclear waste issue. Material obtained under FoI indicated agreement among them that public consent to a GDF would be a 'trump card' in attracting a new reactor at Sellafield, a site which was otherwise considered less suitable than others in the south of England where energy demand is greatest.

Limited nature of the Partnership

The Partnership's membership was limited, with the kind of wide involvement that is usually associated with Partnerships (eg environmental NGOs, the health & voluntary sector) absent. Numbers of seats on the Partnership were limited and invitations were extended but not taken up - for this and a variety of other reasons.

Even with its limited membership, the Partnership was never able to come to agreement over its Terms of Reference.

There was no consideration of models of NGO (and other) participation, which could usefully have drawn on international experience. At the request of representatives of NGOs the Partnership commissioned the NDA to review such models, but the review was unsatisfactory as it failed to include the most successful and equitable (in Canada).

NDA as lead body, DMBs as chair

The above example illustrates a further concern, that the NDA as lead body – as well as being the implementing body – had a conflictual position. In addition, the chair rotated between the 3 local Councils, who were the Decision Making Bodies. Other projects elsewhere in the world have benefited greatly from these roles being independent.

Involvement of Comms in MRWS from the outset

The process embraced a substantial budget for Communications from the outset. Given the deliberative nature of its work, this was difficult for those outside it to understand. However, it became clear that Communications activity extended into the Public and Stakeholder Engagement process, where it often appeared that it was pursuing a brief favourable to moving to Stage Four.

The opinion poll commissioned from IPSOS MORI during early 2012 revealed a widespread ignorance of the process (overall, 4% knew 'a lot' about it; 16% a 'fair amount'; 36% 'a little'; 25% had 'heard of it but know almost nothing' and 19% had 'never heard of it').

This means that the 'support' from a representative sample of the population in Cumbria came from people where 80% of people knew less than a 'fair amount'. This has been presented conversely as 'more than half are aware'. For a process that has produced more than 300 documents on its website this seems woefully inadequate and a very partial representation of affairs. But most of all, it does not reflect well on a Comms strategy that has been very costly but has not delivered in informing the public.

The Partnership and decision-making

As alluded to above, the Partnership's dominance by the 3 Councils also meant that it was dominated by the bodies who were going to make the decisions as to whether or not to proceed. This was viewed by some of its members as problematic, and its ability - and the sense of this - that it would make recommendations as it were 'to itself' was challenged. In response, it has retracted from its initial intention to make recommendations and instead put forward a qualified position and issued advice. This then poses the question of how the DMBs can be considered more qualified than the Partnership (which has done all the deliberation) to take these important decisions.

During the Consultation phase in early 2012, 3 organisations with 5 members: Cumbria Association of Local Councils, Churches Together in Cumbria and the representatives of South Lakeland District Council expressed reservations about moving to Stage Four. The result of this was that the Partnership's Final Report indicates that it was unable to achieve a consensus on most issues.

The 3 Councils covering W Cumbria agreed to decide on the matter on the same day and there is a further agreement that both tiers of government are needed to favour going ahead. An initial discussion at a Cumbria County Council meeting on Sept 5th indicated a majority not in favour of proceeding. A meeting with Baroness Verma at the end of September has resulted in an agreed delay of 3 months in order to address some of the problematic issues identified in this paper:

- ⓐ the need to strengthen the Right of Withdrawal
- ⓑ further work on how the Community Benefits package would be negotiated
- ⓒ recognition that geological investigation is urgent but will be lengthy, and that in the meantime alternative waste management solutions need to be developed in parallel with the MRWS process.

Also identified are the needs for

- ⓓ adequate engagement funding and
- ⓔ brand protection

This letter indicates there will be a pause in the process while further discussions and work take place.

Conclusion

The current situation over radioactive waste disposal is that there is a focus on deep disposal that has marginalised the wider issue of safe and secure interim storage, which is vital regardless of how disposal proceeds.

An internationally novel type of deep disposal facility (incorporating intermediate & high level waste, and potentially different types of spent fuel and plutonium) is being contemplated using a voluntarism approach which is novel in UK policy.

The highly experimental nature of this programme is being implemented with undue haste, and it is therefore not surprising that problems are arising along the way. The case for further careful deliberation, and longer term R & D on storage / disposal seems clear to most of those involved. A 3 month pause does not seem adequate for resolving such a wide range of complex issues.

The experience of the past 3 ½ years suggests that a credible long term policy needs to encompass:

- ① a process that engenders trust by supporting full and independent review and critique
- ① geological screening for radwaste disposal at the initial stages
- ① a clear definition of the inventory envisaged
- ① examination of alternatives to the GDF concept, and to candidate sites
- ① clarity over what constitutes 'communities' and the exercise of rights of withdrawal
- ① a comprehensive approach to waste disposal and storage including long term storage
- ① a timescale that is realistic for meeting the challenges of such a complex issue.

The current pause in the process will begin to address some of these issues. But for West Cumbria the decision will still be highly problematic in 3 months' time.

References

Committee on Radioactive Waste Management 2006 *Managing our Radioactive Waste Safely – CORWM's recommendations to government* CORWM document no 700

Cumbria County Council 2012 *Letter from 3 Council Leaders to Baroness Verma DECC* October 1st

DEFRA BERR & the Devolved administrations for Wales and Northern Ireland 2008 *Managing Radioactive Waste Safely; A Framework for Implementing Geological Disposal* Cm 7386

West Cumbria MRWS 2012 *The Final Report of the West Cumbria Managing Radioactive Waste Safely Partnership* Copeland Borough Council and 3KQ

October 4th 2012

The Government is interested in your views on the geological disposal facility site selection process outlined in the 2008 Managing Radioactive Waste Safely (MRWS) White Paper. To assist us you may wish to consider the following issues in your response:

- What aspects of the site selection process in the MRWS White Paper do you think could be improved and how?
- What do you think could be done to attract communities into the MRWS site selection process?
- What information do you think would help communities engage with the MRWS site selection process?

Site selection process

Volunteerism and partnership concepts should not be abandoned just yet! As noted below, this approach would have worked ethically and successfully for Stage 4 in West Cumbria apart from the existence of two-tiers of local government.

Widening the invitation and search area. Going beyond White Paper para 6.16, maybe the door should be more explicitly opened to industrial volunteers, particularly concerns that have access to large salt deposits that are generally regarded as particularly favourable for disposal (eg WIPP in USA). This is a rather specific point, but it is worth re-examining the possibility of deep sub-seabed sites, particularly those that can offer salt formations. The OSPAR commission permits sub-seabed CO2 disposal subject to conditions (2007), so maybe radioactive waste can be looked at again. Coastlines aren't fixed over geological time! Offshore areas are likely to include essentially static and very slowly moving / diffusing groundwater conditions favourable to geological disposal. The protection of safety and the environment is the driver, and if an offshore location can achieve a disposal safety case justification, surely this should be on the agenda.

Attracting communities into the site selection process

These suggestions are mainly about clarifying the 'rules of engagement'.

1. Design and publish a new and simple definition of 'communities'. The West Cumbria case of the actual community affected as represented by the Borough Councils being over-ridden by the County shouldn't be repeated. MRWS White Paper Box 6 is relevant – having two layers of decision-making body was foreseen (para 6.19), but proved unworkable. This issue is tied up with 'who is the planning authority for waste developments' – such frameworks are essentially aligned to landfills, so something new should be identified for a one-off national radwaste facility.
2. Contrary to the spirit of para 6.2, MRWS White Paper Table 2 (and Section 6 in general) now looks too ponderous and formulaic. It's logical enough, and it's good to indicate some sort of direction of travel, but with the benefit of hindsight communities might want more freedom to work out themselves just how things may unfold. There are conflicting pressures, because there is also a need for Government to be more forthcoming in some areas (see next point).
3. Experience shows that the right of withdrawal process needs strengthening. The policy

and ministerial commitment should be enough in theory, but Councils are suspicious about political and other changes undermining commitments, and want to get as much as they can legally nailed down.

4. The above sentiment applies to the benefit package as well. Councils want something enshrined early on that will withstand future national political and economic changes. Otherwise how can councillors defend to their electors a decision to proceed?
5. These observations point to the need to re-consider bespoke legislation (White paper para 5.6)
6. Summarising the above, the MWS white paper is too prescriptive in places, but still manages to leave potential communities wondering what they might be getting into.
7. With regard to Section 7, Figure 1 suffers from the same formulaic issue as Section 6. The 'unsuitability test' may be an idea whose time has gone. It would be better to do a rounded geological appraisal to determine initial views about positive as well as negative potential. This would make more sense to stakeholders. In any event, it would be good to insert some form of external review and validation to build confidence through all technical steps. As noted later in this response, regulatory oversight is not enough for some stakeholders. CoRWM is essentially aligned to process, and is not constituted to provide fully detailed technical oversight. A partly international expert team might be advisable, clearly separated from Government. IAEA?
8. Any proposal for a subsurface retrievable *storage* facility for ILW would be likely to be seen as a 'Trojan Horse' for permanent disposal of all higher activity waste including used fuel. If this is acknowledged up front, and steps are taken to insert strong hold points and transparent decision making, then this could offer an attractive way forward. Building an underground ILW store would be a useful achievement in its own right. The science of the site would be become much better understood, and the response of the ground and groundwater to the excavation would help the performance assessment.
9. The 'storage' approach might assist in letting the local waste *disposal* authority off the decision making hook, but as note earlier, it would be better to sort out a more focused approach to decision making bodies altogether.
10. The successful implementation of underground storage would provide reassurance about the next step to disposal status if this can be justified. On the other hand, if the safety justification cannot be made, the store would just be another interim facility.
11. There is a regulatory issue that needs to be ironed out with regard to the vires of EA and ONR. The waste store would be a nuclear licensed site, with all the process, procedures and reassurance that this status provides. It would also be a disposal site in waiting. A clear exposition of regulatory roles, responsibilities and expectations would help reassure communities.
12. The 'storage or disposal' issue has been kicked around for at least 20 years, and CoRWM expended a lot of effort on retrievability / reversibility. The first stage of a facility could easily be deemed warehouse-type storage (particularly in a hard rock environment). People may think the concept of underground caverns is novel and uncertain, but there's plenty of evidence about sound and safety-sensitive deep underground operational facilities. Consider the controlled environment of the machine hall of the Dinorwig Pumped Storage Scheme in Wales, for example, built around 35 years ago.
13. The re-introduction of *storage* should be discussed with the present CoRWM because in 2006 the original CoRWM explicitly opted for *disposal* ('no intention to retrieve').

14. The reliance on regulators to only authorise appropriate developments has been undermined in the minds of some stakeholders by the perceived failure of financial regulators in the case of banking. Cynicism about regulators is therefore a problem, and Government may have to implement an additional ('enshrined') oversight / authorisation mechanism to reassure communities. See earlier.
15. Clearly no radioactive waste could be put underground (even for storage) until the appropriate regulatory authorisation has been obtained.

Information to help communities engage

See comments above about making greater use of enshrined or confirmed positions. Communities don't want to 'buy a pig in a poke'. Government needs to come off the fence about these issues early on to overcome potential disquiet and distrust. In other words, switch to more open 'selling' tactics that communities can identify and respect as such. Draft sales messages could be aired in the consultation document.

Later on, for each potential community there should be a full exposition early on of what the disposal (or initial storage) scheme might entail. Numbers of construction workers, amount of traffic, noise and visual impact, possible development schedule. A full SEA or EIA is fine, but big reports aren't great for general communication. Early in the community engagement process people need to have an understanding of roughly what the scheme might look and feel like. Generic information on various possible scenarios would be useful in the consultation document.

This is an initial response to suit time available. A follow-on might be provided later on, particularly if discussions in the media or with acquaintances trigger more ideas.