

Meeting:	NuLeAF Steering Group, 15 October 2014
Agenda Item:	4
Subject:	Update on the Geological Disposal Facility (GDF) siting process
Author:	Philip Matthews
Purpose:	To update members on developments in the siting process and review the draft NuLeAF Briefing on the recent White Paper

Introduction:

The Government White Paper – **Implementing Geological Disposal: A Framework for the long-term management of higher activity radioactive waste** – was published on the day of the last NuLeAF Steering Group meeting, 24th July. NuLeAF has now drafted a Briefing Paper on the White Paper, for review by Steering Group. This is set out below, along with an update on other developments in the GDF process.

Recommendation:

That the Steering Group approve the draft NuLeAF Briefing Paper on the recent White Paper on Geological Disposal (Appendix 1).

Contribution to 2013/15 Service Plan:

This report is in pursuance of the following tasks under the Geological Disposal Facility (GDF) work-stream for 2013/14 in the NuLeAF Service Plan 2013-15:

- *Fully engage with the review of the MRWS siting process and advise DECC and RWMD as appropriate.*
- *Respond to any consultation to develop a National Policy Statement for a Geological Disposal Facility (GDF).*
- *Help DECC and RWMD develop an informed national debate about the case for geological disposal.*
- *Continue to support the interests of local authorities (including those hosting wastes earmarked for geological disposal) in the GDF process as it develops.*
- *Promote relevant aspects of the generic advice generated by the WCMRWS Partnership, and other learning from international experience, should other areas in England or Wales wish to consider engagement with MRWS.*
- *Advise planning authorities in the development of policies for higher activity waste storage and/or disposal.*
- *Continue to advise DECC, NDA and regulators in the delivery of Government policy for HLW locally. Seek to engage with any new Geological Disposal Implementation Board.*
- *Continue to monitor and contribute to relevant international programmes and disseminate international best practice.*

1. Recent developments in the GDF Siting Process

The GDF White Paper was published on the 24th July 2014. The Executive Director received an advance briefing on the key points of the new policy from DECC and reported this to the Steering Group. This was followed by a discussion among NuLeAF members of the various aspects of what is now proposed.

A final position on many important aspects of the GDF process is not provided by the White Paper. Instead, it is proposed that over the next two years expert groups will develop the approach to working with communities, land use planning and the provision of geological information.

Since publication of the White Paper, NuLeAF has engaged with DECC and RWM Ltd to discuss the proposals and set out the views of local authorities. It has been agreed that monthly phone or face to face meetings be held between DECC, RWM and NuLeAF to provide regular updates on progress. NuLeAF is also hopeful of being invited to participate in the Community Representation Working Group and to be engaged in discussions on other aspects of the new policy.

Geology meeting

The Business Support Co-ordinator attended the technical workshop organised by RWM at the Geological Society of London on 30 September. The workshop was well attended with around 70 participants from academia, industry, government and NGOs. Presentations were given by:

- Bruce Cairns, DECC on UK Government policy on geological disposal of Higher Activity Radioactive Wastes;
- Adam Dawson, GDF Siting Director at RWM on the national screening exercise;
- Neil Chapman, Sheffield University, on the approach taken in other countries;
- Nic Bilham, Geological Society of London, on the role of the society in the screening exercise and the establishment of an independent review panel;
- Gerard Bruno, IAEA, on their guidelines on geological screening; and
- Lucy Bailey, Safety Case Manager for RWM on the geological attributes which are included in the generic safety cases.

The presentations were followed by a panel discussion on developing the scope of the national screening exercise, and the British Geological Survey demonstrated their 3D geological model of the UK¹.

The whole event was filmed and this, along with edited highlights and copies of the presentations will be available online.

RWM are organising a series of workshops on the geological screening exercise and NuLeAF has circulated the invitation to its membership.

¹ <http://www.bgs.ac.uk/services/3Dgeology/home.html>

A proposal has also been put to RWM and DECC for increased funding for NuLeAF to enable proper engagement of local authorities as the new policy develops. A decision on this proposal is awaited.

Finally, it has been suggested that it is now less useful for NuLeAF to participate in the **Regulatory Interface Management (RIM)** meetings held by RWM Ltd, given other engagement and a refocussing of the work of that group.

2. NuLeAF Briefing Paper on GDF White Paper

NuLeAF has prepared a draft Briefing Paper, explaining the key elements of the new White Paper and highlighting some important areas that NuLeAF/local government believe should be addressed as the policy evolved over the coming years. The draft Briefing Paper has taken on board comments made at the Radioactive Waste Planning Group (RWPG) and in the initial discussion on the White Paper undertaken at the July Steering Group meeting.

Further comments are now invited. A final version of the Briefing will be published following this meeting.

Appendix 1: INTERIM BRIEFING PAPER ON THE NEW WHITE PAPER ON A GEOLOGICAL DISPOSAL FACILITY

Briefing Paper 27

September 2014

This is an interim Briefing Paper on the recently published UK Government White Paper on Implementing Geological Disposal. The briefing outlines the main elements of the White Paper and also NuLeAF's view on the new process. This Briefing Paper will be finalised following approval at NuLeAF's Steering Group meeting on the 15th October 2014.

1. Introduction

Following the decision of Cumbria County Council in January 2013 not to proceed to Stage 4 of the Managing Radioactive Waste Safely (MRWS) process, the UK Government has been developing a new approach to the management of Higher Activity radioactive wastes.

A 'call to evidence' on a new policy was launched in May 2013, with this being followed by a wider consultation on September 2013². Following representations from NuLeAF (Ref) and a range of other organisations a White Paper – **Implementing Geological Disposal: A Framework for the long-term management of higher activity radioactive waste** – was published in July 2014³.

The White Paper restates the Government's commitment to manage *'higher activity radioactive wastes in the long term through geological disposal which will be implemented alongside ongoing interim storage and supporting research.'* However, while the overarching objective remains the same, many elements of the new process have been altered or are to be decided following further discussion.

This Briefing Paper sets out the main proposals contained in the White Paper and the initial view of NuLeAF. This is an interim Briefing Paper – it will be finalised in October 2014 following discussion at NuLeAF's Steering Group and Radioactive Waste Planning Group.

2. White Paper: Background and structure

The White Paper replaces the 2008 White Paper in England and Northern Ireland. Wales is not issuing the new White Paper. Its policy remains that set out in the 2008 Paper, but like in England and Northern Ireland, communities

² <https://www.gov.uk/government/consultations/geological-disposal-facility-siting-process-review>

³ <https://www.gov.uk/government/publications/implementing-geological-disposal>

in Wales have the potential to be involved in the new GDF siting process. The Scottish Government has a separate policy on the management of Higher Activity Waste and Scotland is not participating in the siting process.

The new White Paper provides contextual information on the inventory for the GDF, on the policy background and the technical aspects of its delivery. It establishes a number of actions that will be undertaken by the Government and the developer, Radioactive Waste Management Ltd (RWM), over the next two years, concerning:

- National geological screening;
- Establishment of the policy framework for planning decisions in England; and
- The development of a process for working with communities.

Following the completion of these actions, it is expected that the formal process of engagement with communities will begin in 2016.

3. Higher Activity Waste and Geological Disposal

In 2003 **CoRWM**⁴ undertook a detailed study of all main options for the long term management options for higher activity wastes, including indefinite storage, disposal at sea, disposal in outer space and deep geological storage.

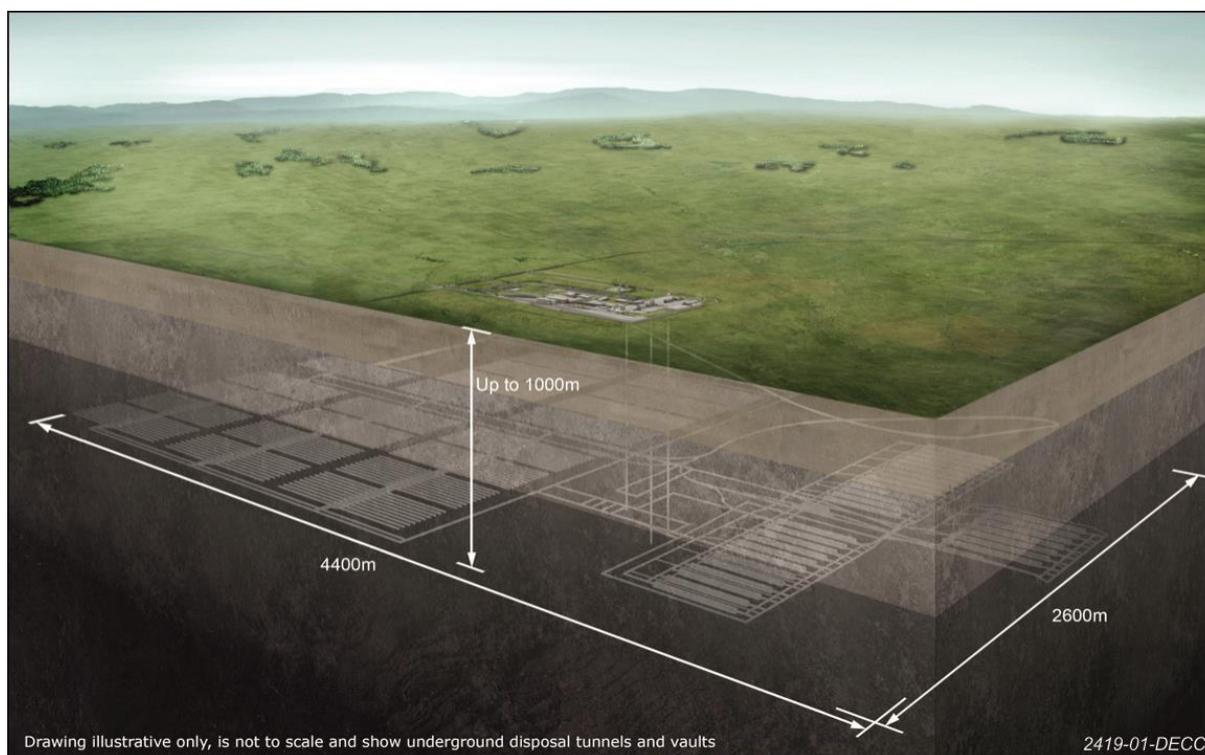
CoRWM's conclusion was that geological disposal was the best available approach for the long term management of such wastes. A similar policy is being pursued in other countries including Sweden, Finland, Canada, the USA and Switzerland. Policy in Scotland is for long term storage in near surface facilities.

Geological disposal involves the use of multiple barriers contained within a suitable rock formation with the aim of ensuring that no harmful quantities of radiation reach the surface or affect humans and the environment. The multiple barriers are:

- The form of the waste itself. For example high level waste that arises as a liquid is converted into glass before storage and disposal;
- Packaging of the waste;
- Engineered barriers that protect the waste packages and limit the movement of radionuclides if they are released from the packages;
- Engineered features of the facility itself; and
- A stable geological setting.

⁴ CoRWM – The Committee for Radioactive Waste Management provides independent scrutiny and advise to UK Governments on the long term management of higher activity radioactive wastes. It is an advisory non-departmental public body sponsored by the Department for Energy and Climate Change.

The GDF will have surface facilities covering an area of around 1 square kilometre. These would be linked to the vaults and underground facilities through access tunnels or shafts, with the underground facilities up to 1,000 metres below the surface and potentially several kilometres from the surface access point. The total underground footprint of the site could be 10 to 20 square kilometres.



The Government has a 'strong preference' for all waste to be placed in one facility. However, development of more than one GDF, with each facility accommodating part of the waste inventory, has not been ruled out.

The **Environment Agency/Natural Resource Wales** will regulate the development of the site under the **Environmental Permitting (England and Wales) Regulations 2010**, while the **Office for Nuclear Regulation (ONR)** will advise on operational safety, security and transport. ONR also has a key role in regulating the storage of Higher Activity Wastes on nuclear sites until a GDF is available. A GDF will be classed as a nuclear installation under the **Nuclear Installations Act 1965**.

While Government is responsible for policy, the delivery of a GDF is the responsibility of the recently formed **Radioactive Waste Management (RWM) Limited**, a wholly owned subsidiary of the Nuclear Decommissioning Authority (NDA). RWM is responsible for safety, security and environmental protection for the lifetime of the GDF development.

4. Making it happen

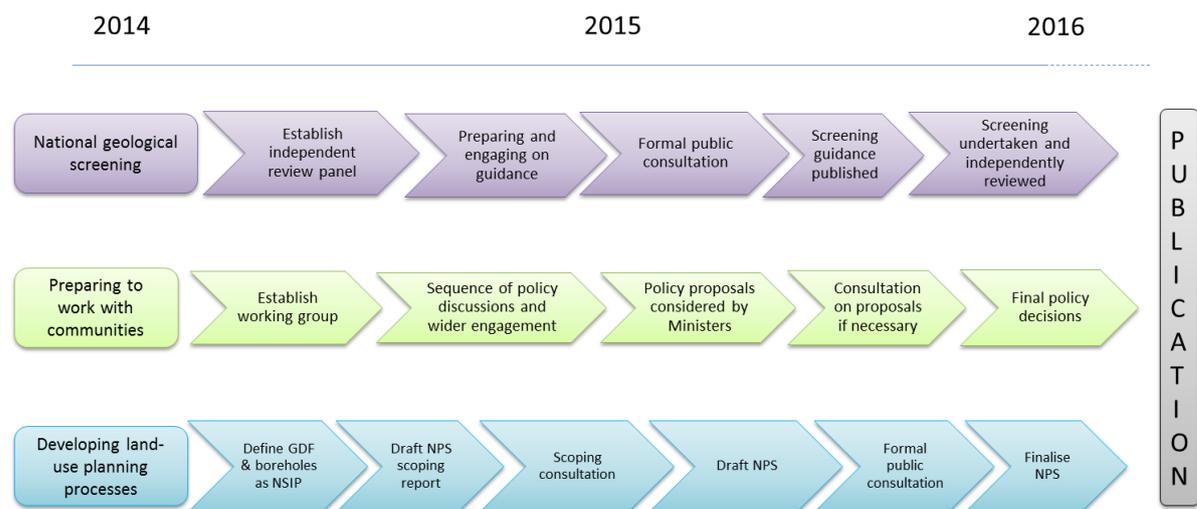
The core commitment of the UK Government remains, namely that **only those communities that put themselves forward will be considered as potential hosts** of the GDF and that there must be a **test of public support** before a site or sites for a GDF are given the final go ahead. Communities are free to enter into the process and also to withdraw up to an agreed point.

However, the Paper concedes that useful lessons have been learned from MRWS and on this basis some significant changes have been made. Overall there is an acceptance that greater clarity is required on some issues from the outset, while on other issues there will now be a greater degree of flexibility with fewer formal stages and milestones.

The detail of some crucial aspects of the process will only be determined following further engagement over the next two years. Work, and engagement, will be focussed in three areas:

1. National geological screening;
2. Developing land use planning processes; and
3. Working with communities.

The timeframe for each process is set out below and more detail on the proposals in each of these areas is provided in the following sections.



Activity between now and 2016 will consist of:

- Actions the UK Government and RWM will conduct to deliver clear, evidence based information at the national level that will help inform local discussions.
- The development, by the UK Government in liaison with public and national stakeholders of a process for working with communities.

These actions will be drawn together in a framework. Once this is in place formal discussions with any interested communities can begin. The anticipated timeframe for the whole siting process is summarised in the diagram below.



4.1 Geology

A desire for greater information on local geology emerged as a key issue during the MRWS process. In response it is proposed that RWM conduct a high level **national geological screening exercise**.

The screening exercise will be underpinned by guidance to be developed through close work with external experts such as the British Geological Survey, and which will also draw on international learning and engagement. A draft of the guidance is expected to be issued for consultation during 2015.

It is expected that the geological screening itself will take the form of maps and commentary, and highlight the range of potentially suitable types of geology available across the UK including a range of igneous rocks, clays and evaporites (salt).

Screening is not expected to completely rule certain areas in or out and will not identify target sites for possible development. It is hoped though that it will enable more constructive discussions to take place at the local level regarding whether an area is likely to be suitable. The White Paper also

suggests that further geological studies may be commissioned in local areas in the early stages of work with individual communities, in order to produce a geological report for that community.

Later in the siting process more extensive geological studies, including boreholes, will be required. Borehole drilling is only anticipated in one or two areas, due to the high cost involved.

4.2 Land use planning

In contrast to the previous MRWS process, the White Paper states the intention of Government as being to amend legislation to classify the GDF as a **Nationally Significant Infrastructure Project (NSIP)** and also bring any borehole drilling within the NSIP process.

The amendment of the 2008 Act will be completed by 2016 when the formal process of seeking volunteer communities will begin. A **National Policy Statement (NPS)** on the GDF will be prepared and consulted on once the Planning Act 2008 has been amended. The NPS will be subject to a **Statement of Sustainability** and a **Habitats Regulation Assessment** and it is anticipated that a draft NPS will be available for consultation during 2016.

The decision making processes for NSIPs are set out in the Planning Act 2008 where the **Planning Inspectorate** assesses proposals and then makes a recommendation to the Secretary of State as to whether to grant permission. There are also requirements to consult communities, statutory bodies and other interested parties as part of the NSIP process:

- Before submitting an application for development consent, the Planning Act 2008 requires that the development must be publicised, and a '**Statement of Community Consultation**' produced.
- Once the application for development consent is submitted to the Secretary of State (SoS), the Planning Inspectorate has a period of 28 days to decide if the application meets the standard required to be accepted for examination. During this period local authorities will be invited to make representations to the SoS regarding their view on whether consultation was adequate.
- If an application is accepted there will be a 3 month 'pre-examination' phase during which the public will be able to provide their views on the application. Everyone who makes a relevant representation will be invited to attend a meeting chaired by an Inspector.
- The Planning Inspectorate then has 6 months to carry out their examination of the application. Relevant local authorities will be able to submit **Local Impact Reports** and those who made representations in the 'pre-examination' phase will be able to provide more information on their views.

After the conclusion of the examination, the Planning Inspectorate has 3 months to prepare a report to the SoS which will include a recommendation as to whether to grant permission.

The process set out above applies only to England. Planning decisions related to any GDF development in Wales or Northern Ireland will be subject to separate processes.

4.3 Communities

The arrangements for engaging with local government, and providing community investment, are of particular importance to NuLeAF members.

There are clear commitments in the White Paper to:

The **right of any community to withdraw from the process** at any point up to a final test of public opinion that will determine whether development should go ahead (the so-called 'Community Right of Withdrawal').

A **commitment to substantial community investment** in recognition of the service to the nation that any host community will play. The investment could help fund education and training, improved recreational facilities or transport infrastructure and would be in addition to any agreement for mitigation measures such as those agreed through Section 106 of the Town and Country Planning Act 1990.

All communities entering the process will receive community investment up to £1million per annum. This would rise to £2.5 million per year for a community or communities progressing to the stage where borehole investigations were undertaken. Following final agreement, the successful community would receive much more significant investment. This is not defined in the White Paper but is expected to amount to hundreds of millions of pounds in total.

While the White Paper recognises the central role of local authorities in the new GDF siting process, much of the detail is still to be decided. The Government's view is that *'if the process of community representation and engagement is going to be credible, practical and flexible enough to function over the long duration of the project, it needs to be developed over time, in an open and transparent manner.'*⁵

The Government has committed to developing a new approach to working with communities over the next two years, running in parallel to the commitments on planning and geology. The focus for this work will be a **Community Representation Working Group**, chaired by DECC and with a membership including RWM, local government representatives, academics and other government departments. It will:

⁵ White Paper, page 43

- Develop approaches to defining 'communities' in areas interested in learning more about a GDF, and options for effective community representation;
- Define roles and responsibilities for community representatives and an understanding of how these roles could evolve alongside the GDF siting process;
- Develop options for ensuring all levels of local government have a voice in the GDF siting process;
- Provide greater clarity as to the point at which a test of public support might be appropriate, and the method that could be used; and
- Develop options for disbursement of community investment including the management of such funds and the method by which applications for funding could be assessed.

5. NuLeAF's view on the White Paper

NuLeAF believes that the White Paper is stronger in a number of areas than the original consultation document. That said, there are still significant areas that lack clarity or which do not go far enough in meeting the needs of local authorities and the communities they represent.

NuLeAF supports the commitment to a final **test of public support** as such a development cannot be imposed on a community. NuLeAF believes that this final test of community support should be late in the process. NuLeAF will engage with the Community Representation Working Group to ensure that the method adopted is inclusive and democratic. The identification of a suitable community or communities will require a pro-active process of engagement with Elected Members and officials in local authorities across England and Wales.

Such engagement will need to show the scope for significant community investment and other benefits that could flow from such a scheme. It will also need to allay legitimate concerns regarding safety and security. The process must be responsive to local needs and progress at a pace that is acceptable to individual areas, rather than impose a 'one size fits all' approach.

In relation to **geology**, NuLeAF supports the undertaking of a screening exercise and the provision of more information on geology early in the process, as well as the potential for borehole drilling in more than one site. As the MRWS process in Cumbria demonstrated, lack of certainty about the suitability of geology can cause a great deal of community concern. While the White Paper proposals will not provide absolute clarity as to the suitability of an area, they are a step in the right direction. It is also important that information on geology, and other technical aspects of the proposal, are provided in a language that is understandable to the wider public.

Regarding **land use planning**, NuLeAF accepts that it makes sense to designate the project as Nationally Significant Infrastructure. It is a huge project of national significance, and it is therefore logical for it to be classified as such. Given the particular nature of the GDF project, it is appropriate for the NSIP approach to be adapted so that additional community engagement, consultation and investment are undertaken.

The White paper recognises that '*local representative bodies – including **all levels of local government** – will need to have a voice in this process.*'⁶ While NuLeAF supports this, far greater clarity is needed on the exact role that local authorities (unitary, district, borough and county) and indeed parish councils will have. Local authorities have a democratic mandate and also a wealth of skills in relation to planning, environmental management, economic development and engagement with local communities. They must be at the heart of any local siting processes and NuLeAF will press for this through the Community Representation Working Group.

Developing a **workable definition of what is meant by a 'community'** is likely to prove challenging. NuLeAF looks forward to engaging in discussions on this topic, which needs to be addressed thoroughly as soon as possible. It is of central importance to a successful siting process.

The **commitment to community investment** is welcome, particularly the commitment to provide funding to every community entering into the process. In order to encourage local areas to enter the process, NuLeAF believes there is a need to provide greater clarity as to the scale of investment that will be available to the GDF host community. NuLeAF also believes that local authorities have the skills and democratic mandate required to oversee investment funds and will make the case for this through the Community Representation Working Group.

A GDF is unlikely to be available until at least 2040. Waste bound for a GDF will have to be stored at other sites on an interim basis for many decades, creating issues for host local authorities. NuLeAF will continue to engage with Government and the NDA to find the best solutions to **interim waste management and storage**.

⁶ White Paper, page 43