

CORWM REPORT TO GOVERNMENT

GEOLOGICAL DISPOSAL OF HIGHER ACTIVITY RADIOACTIVE WASTES July 2009

EXECUTIVE SUMMARY

1. Publication on 12 June 2008 of the White Paper, "Managing Radioactive Waste Safely – A Framework for Implementing Geological Disposal", marked an important stage in the developing programme for the management of higher activity radioactive wastes in the United Kingdom.
2. CoRWM's work on the process for implementing geological disposal since that date has been:
 - to monitor the interest of local communities in responding to the invitation to express an interest in opening up without-commitment discussions on the possibility of hosting a geological disposal facility at some time in the future
 - to enter into a dialogue with the Nuclear Decommissioning Authority (NDA), the regulators and others about how each of them will play their part in the delivery of the Managing Radioactive Waste Safely (MRWS) programme
 - to avail the Committee of international experience.
3. All of this has led to CoRWM scrutinising the implementation of geological disposal and advising on the process when requested. The following are its conclusions and recommendations.

The Invitation to Participate in the Siting Process for Geological Disposal

The White Paper

4. CoRWM is pleased that, in so far as geological disposal is concerned, the White Paper has closely followed CoRWM's earlier recommendations and advice. CoRWM is strongly supportive of the voluntarism and partnership approach to site selection set out in the White Paper.

Engaging with Local Communities

5. It is of concern that, at this time, only one part of the UK has come forward with Expressions of Interest. This is particularly so since the geological, technical, environmental and social suitability of any area that expresses an interest will remain unclear for some years.
6. Therefore, there is both a need and still time to publicise the invitation to participate more widely. CoRWM welcomes the Government's renewed efforts in 2009 to communicate with local government, stakeholder groups at nuclear sites, Regional Development Agencies and others about geological disposal whilst at the same time working positively with the authorities in West Cumbria who have already expressed an interest in the possibility of hosting a GDF.
7. CoRWM considers greater effort is likely to be needed to inform and support local authorities, particularly in non-nuclear areas.
8. Some local authorities, including some of those that have made an Expression of Interest, have expressed concerns to CoRWM about what would happen if the

present voluntarism approach to site selection failed. They think it is possible that, if they exercised their right to withdraw some way into the site selection process, sufficient work may have been undertaken in their area for Government to select it if the present process failed and a non-voluntary approach were adopted. CoRWM considers that it would contribute to the confidence that local stakeholders have in the current site selection process if Government were to restate its commitment to the voluntarism approach and to indicate that it would consult stakeholders before adopting any other approach.

Managing the Implementation of Storage and Geological Disposal

Decision Making

9. CoRWM considers that, because most of the decision-making arrangements for implementation of geological disposal have been in place for less than a year, it would be premature for it to express any views on their overall adequacy or efficiency. However, CoRWM notes that there is a lack of clarity on two aspects of decision making at the local level.
10. One aspect was to some extent foreseen in the MRWS White Paper and concerns which local authority (or authorities) should be the Decision Making Body (or Bodies) in situations where there is more than one tier of local government. It has become apparent that Government advice may be required in such situations. CoRWM encourages Government to provide such advice in a timely way.
11. The other aspect of local decision-making where there is currently a lack of clarity is in the identification of potential sites and, therefore, potential host communities, after a Decision Making Body has made a Decision to Participate. It is CoRWM's view that potential sites should only be considered for surface-based investigations where there is credible support in the potential host community. Such support may not be forthcoming unless communities have a clear understanding of how potential sites will be identified and CoRWM therefore encourages Government to provide the necessary clarity.

Funding

12. The issue of funding is important to a range of stakeholders and to the wider public. CoRWM's consideration of NDA funding for implementation of geological disposal showed that the main need in the immediate future is for Government and the NDA to consider and explain more fully the mechanisms by which funding will be made available during the various stages of the implementation of geological disposal. It is essential that the issue of intergenerational equity is taken into account.
13. CoRWM notes that Government is committed to funding Engagement Packages for communities that have expressed an interest in entering discussions on hosting a geological disposal facility. In Cumbria, the Government has already provided some financial support to the West Cumbria MRWS Partnership. It is important that the formal Government agreements with local authorities to fund Engagement Packages give confidence to communities that sufficient funds will be available for as long as they are required.
14. CoRWM considers that Government should begin work to develop the principles that will be used in developing Community Benefits Packages. Based on CoRWM's previous work, it expects these principles to include:

- The package will aim to enhance the wellbeing of areas on which the disposal facility will have a significant impact in both the short and longer term in recognition that they are enabling a national need to be met.
 - The package will reflect the future development aspirations of areas.
15. Government will also need to set out clearly the process by which the Package will be delivered.

RECOMMENDATION 1

CoRWM recommends to Government that it begins work now to develop the principles to be used in deriving Community Benefits Packages and the process by which Packages would be agreed. This should include work on providing confidence that, once agreed, such Packages will be delivered.

Management of Risks

16. CoRWM welcomes the establishment by the NDA and Government of risk management frameworks and risk registers and will monitor how these operate in practice.
17. CoRWM looks to local government to develop a risk-based approach to those aspects of implementing geological disposal in which it has a role.

International Experience

18. CoRWM considers that important lessons are available from overseas experience and is pleased that the NDA and UK regulators are gaining knowledge from their international counterparts. It is desirable that Siting Partnerships should also be able to benefit from overseas experience, both directly and *via* the NDA and the regulators.

Public and Stakeholder Engagement

19. The White Paper acknowledges the importance of public and stakeholder engagement in the geological disposal facility site selection process and identifies the NDA framework for public and stakeholder engagement and communication as a key element.
20. When the White Paper was published, Government set up a dedicated website to provide information and indicated a willingness to respond to any approach for information from a community. It responded to a number of approaches and met with communities when asked to do so. It now regularly attends meetings of the West Cumbria MRWS Partnership. It has also commenced a new initiative for raising the profile of the siting process for geological disposal.
21. In the case of NDA, CoRWM is concerned that the PSE and communications work of its Radioactive Waste Management Directorate (RWMD) is not yet sufficiently integrated within the overall NDA family. CoRWM thinks that RWMD should work more closely with the rest of the NDA to produce an overall PSE and communications strategy that will take account of the fact that the RWMD will, in due course, become the site licence company that will be the delivery organisation for geological disposal.
22. CoRWM itself undertook PSE in the preparation of this report. A consultation draft was placed on the website and copies were sent to a number of stakeholders.

Bilateral meetings were held with NuLeAF and the NDA whilst a stakeholder workshop was held in Cumbria to discuss the draft report.

Regulation and Permitting

The Regulators – the Regulatory Framework

23. CoRWM welcomes the moves towards setting up a joint regulators' team and office for geological disposal. It also welcomes the revised Environment Agency guidance on geological disposal (the GRA).
24. CoRWM is pleased that steps are being taken to make the legislative changes needed to allow staged authorisation of a geological disposal facility under the provisions of the Radioactive Substances Act 1993 and to allow geological disposal facilities to be licensed as such under the Nuclear Installations Act 1965. These changes will provide greater clarity to potential host communities about the regulatory framework for geological disposal.

Land Use Planning

25. The new provisions contained in the Planning Act 2008 and the possible change of attitude regarding whether one or more planning applications will be appropriate to deliver a GDF are creating some uncertainty amongst community representatives.

RECOMMENDATION 2

CoRWM recommends to Government that it should explain how local stakeholders would have an opportunity to influence the outcome of the planning application process for a GDF if the application is referred to the Infrastructure Planning Commission.

RECOMMENDATION 3

CoRWM recommends to Government that the NDA and the Government should discuss with communities that have expressed an interest, the advantages and disadvantages of single- and two-stage planning applications for underground investigations and construction of a GDF. In particular, the discussions should cover the hold points, that could be subject to conditions attached to approval of a single application, and opportunities for local stakeholder engagement at such hold points.

26. CoRWM considers that the proposed NDA Framework for Sustainability Appraisal and Environmental Assessment for Geological Disposal meets current requirements for SEA, SA and EIA and that principles of good practice have been incorporated.
27. CoRWM welcomes the fact that SEA, SA and EIA will be utilised at all stages (both at strategic and local levels) of the implementation of geological disposal to inform key decisions. CoRWM also welcomes the proposals for extensive consultation with stakeholders and the public, peer review of all assessments and the establishment of an independent Advisory Group.

Inventory of Radioactive Waste

28. Previously, CoRWM recommended that the NDA (with DECC) produce a "Future Scenarios" paper that would provide an overview of what wastes might be placed over time into a GDF. This would be complementary to the information in the UK Radioactive Waste Inventory. CoRWM welcomes the positive response given to this suggestion.

Development of Geological Disposal Concepts and Facility Designs

29. CoRWM welcomes NDA work on its Provisional Implementation Plan (PIP) for geological disposal and its Disposal System Safety Case (DSSC). CoRWM notes that NDA is producing a shorter, more accessible, report on “planning for Geological Disposal” and an overview report on its generic DSSC. The Committee is pleased that both of these will be in the public domain.
30. There are two stages in designing for geological disposal: concept development and facility design development. CoRWM considers that option assessments are essential at both stages.
31. The NDA is currently at the concept development stage. CoRWM is of the view that, in option assessments at the concept level, it is important to consider a wide range of options. These should include disposal in facilities constructed using various techniques, at depths ranging from about 200m to more than 1km, disposal of all higher activity wastes in a single facility, separate facilities for various types of higher activity wastes, and facilities incorporating differing degrees of retrievability. In identifying the concepts to be assessed, the NDA should take full account of recent advances in engineering and mining technologies. The NDA should keep up to date with developments relevant to deep borehole disposal and reassess the viability and potential costs of this concept at intervals. This will enable deep borehole disposal to be considered for particular types of higher activity wastes if an alternative to other concepts is required.
32. In preparation for the design level options assessments, it is necessary to have in place an integrated process of GDF design, site assessment and safety case development. This will enable designs for each candidate site to be evaluated and compared.
33. CoRWM believes that a wide range of stakeholders should be involved in option assessments, at both concept and facility design level.

RECOMMENDATION 4

CoRWM recommends to Government that it should ensure that the NDA carries out option assessments in which a wide range of geological disposal concepts is considered. These should include disposal in facilities constructed using various techniques, at depths ranging from about 200m to more than 1km, disposal of all higher activity wastes in a single facility, separate facilities for various types of higher activity wastes, and facilities incorporating different degrees of retrievability. A wide range of stakeholders should be involved in these assessments.

RECOMMENDATION 5

CoRWM recommends to Government that it should ensure that the NDA has an integrated process in place for geological disposal facility design, site assessments and safety case development. The process should be described in publicly available documents that have been reviewed by independent experts and the regulators.

Screening out Unsuitable Areas

34. CoRWM welcomes the Government’s commitment that the draft BGS report on site screening will be made available to stakeholders and public in the relevant area as well as being subject to peer review.

Desk-Based Studies

35. NDA is committed to a consultation on the proposals for Stage 4 of the site selection process and on how this will be implemented within a framework of sustainability appraisal and strategic environmental assessment (SA/SEA).
36. CoRWM considers it advantageous for time to be allowed in this process for potential host communities, having expressed an interest, to participate in the consultation and for their inputs to be taken into account in developing the proposals before they are put to Government for agreement.

Progress So Far

37. CoRWM welcomes the progress made by Government and the NDA in carrying forward the geological disposal implementation programme set out in the June 2008 White Paper.