

# 2431

## Review of MRWS White paper September 2008

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CoRWM's Terms of Reference require it to provide appropriate and timely evidence-based advice on Government plans under the MRWS programme. It must also report annually to Government.

This paper is a first consideration of the MRWS White Paper on the framework for geological disposal. It is based primarily on discussions in Working Group D on July 21 2008 but also draws on CoRWM's informal comments on the draft White Paper, on CoRWM's recommendations as reported in 2006 and on an overview of the responses to the consultation that preceded the White Paper. There have been few opportunities, as yet, to discuss the White Paper through the CoRWM PSE process. The main exception to this, is the Working Group D meeting with NuLeAF held on July 17 2008, which was used to inform the present paper.

Further work on the MRWS programme as set out in the White Paper will take up the greater part of CoRWM's work programme in future months. This will include dialogue with various stakeholders and, in addition, the MRWS programme will form a significant part of the PSE Workshop to be held on 30 October 2008.

## REVIEW OF MANAGING RADIOACTIVE WASTE SAFELY: A FRAMEWORK FOR IMPLEMENTING GEOLOGICAL DISPOSAL (Cm 7386, June 2008) [3 Draft revised after plenary discussion]

### WORKING GROUP D

#### Purpose of Review

1. To provide commentary on the White Paper for use in CoRWM's future work.
2. To highlight any issues that CoRWM may wish to raise with Government as part of its ongoing advice.

#### Background

1. Published as part of the Managing Radioactive Waste Safely (MRWS) programme, the "White Paper sets out the UK Government's framework for managing higher activity radioactive waste in the long-term through geological disposal, coupled with safe and secure interim storage and ongoing research and development to support its optimised implementation. It also invites communities to express an interest in opening up without commitment discussions with Government on the possibility of hosting a geological disposal facility at some point in the future"<sup>1</sup>.
2. Chapter 1 of the White Paper traces the history leading to its publication starting with the initiation of the MRWS programme in 2001 which led to the setting up of CoRWM. Government broadly accepted most of CoRWM's recommendations<sup>2</sup> but placed particular emphasis on geological disposal based on a voluntary approach to site selection. The response<sup>3</sup> to CoRWM's recommendations committed Government to taking the MRWS programme forward. A consultation paper<sup>4</sup>, itself informed by further work undertaken by CoRWM<sup>5</sup>, was published in

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<sup>1</sup> *Managing Radioactive Waste Safely. A Framework for Implementing Geological Disposal.* Cm 7386, June 2008, Executive Summary, paragraph 1.

<sup>2</sup> Committee on Radioactive Waste Management, *Managing our Radioactive Waste Safely- CoRWM's Recommendations to Government*, July 2006, CoRWM Document 700, available at [www.corwm.org.uk](http://www.corwm.org.uk).

<sup>3</sup> UK Government and the devolved administrations, *Response to the Report and Recommendations from the Committee on Radioactive Waste Management (CoRWM)*, (PB 12303) October 2006, available at [www.defra.gov.uk/environment/radioactivity/waste/pdf/corwm-govresponse.pdf](http://www.defra.gov.uk/environment/radioactivity/waste/pdf/corwm-govresponse.pdf).

<sup>4</sup> Defra, BERR and the Welsh and Northern Ireland devolved administrations, *Managing Radioactive Waste Safely: A Framework for Implementing Geological Disposal*, 25 June 2007, available at [www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm](http://www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm). Note that the Scottish Government is not party to the consultation or the White Paper because it has decided not to pursue geological disposal as a long-term management option.

<sup>5</sup> Committee on Radioactive Waste Management, *Implementing a Partnership Approach to Radioactive Waste Management: Report to Governments*, April 2007, CoRWM Document 2146, available at [www.corwm.org.uk](http://www.corwm.org.uk).

June 2007, the responses to which<sup>6</sup> were taken into consideration in developing the way forward set out in the White Paper<sup>7</sup>. CoRWM, as reconstituted, was able to offer some informal advice to Government on the style and content of the White Paper.

3. CoRWM is committed to scrutinising the MRWS programme as it is taken forward. This paper is a first step in that scrutiny. Its purpose is to report on the extent to which Government has taken account of CoRWM's advice, to identify any gaps in coverage, and to offer some advice/recommendations on areas where the Committee considers further work may be needed either to clarify matters or address current or future concerns.
4. CoRWM will report more fully on the MRWS programme in its report to Government on geological disposal in June 2009.

### **General Observations**

5. CoRWM's 2006 report made a package of recommendations which identified geological disposal as the best available option for the long-term management of higher activity waste but further recognised the need to ensure that there was a robust system of interim storage available until such time as a geological disposal facility might become available. There has been some concern within CoRWM that the Government's response placed too much emphasis on geological disposal. The balance has been redressed to some extent and there is reference to other things recommended by CoRWM<sup>8</sup>. Nevertheless, the White Paper is essentially about geological disposal. CoRWM will consider what more is required for interim storage and will report on this topic in March 2009).
6. In so far as geological disposal is concerned, the White Paper has closely followed CoRWM's recommendations and advice and has benefited from on-going discussions with NuLeAF. Most of the points raised below are on matters of detail and do not detract from the overall messages of the White Paper, which are clearly presented.

### **Key Points**

#### ***Timing***

7. It was CoRWM's view that any community could volunteer and that there was no need to restrict potential host communities to localities where there are existing

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<sup>6</sup> As summarised in Defra, BERR and the Welsh and Northern Ireland devolved administrations, *Summary and Analysis of Responses to the Consultation on Managing Radioactive Waste Safely: A Framework for Implementing Geological Disposal*, 10 January 2008, available at [www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm](http://www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm).

<sup>7</sup> As stated in paragraph 1.7 of the White Paper.

<sup>8</sup> See, for example, paragraph 1.1 which refers to interim storage and research and development.

nuclear sites. Experience overseas has shown that non-nuclear communities do sometimes express such an interest in hosting radioactive waste facilities. It is unrealistic, however, to expect communities or their representatives to express interest in the possibility of hosting a geological disposal facility (GDF) if they know very little about the issues that are involved. Many, if not most, non-nuclear communities are unlikely to have the background knowledge and understanding of what is entailed. In CoRWM's view, the difference in knowledge base between nuclear and non-nuclear communities has two major implications for the likelihood of obtaining volunteers from across the country. First, sufficient time must be given to allow communities to get to grips with the issues sufficiently to be able to make an informed decision on whether to express interest and secondly, some effort is likely to be needed to provide the 'education' for non-nuclear communities.

8. The first issue is dealt with in the White Paper to the extent that there is no closing date for the receipt of expressions of interest<sup>9</sup>. However, the implication is that early indications of interests would be preferable and this could disadvantage non-nuclear communities and put them off from even considering whether to consider the issue at all. Similarly, any community considering coming forward might need greater certainty on the timing of the window of opportunity.
9. The second issue is not covered adequately. The information and links on the dedicated website will provide a starting point but puts all the onus on the community to make the effort to find out more and does not make it easy to ask questions or engage in discussion. Furthermore, the mechanism for the provision of further information to any local community – nuclear or non-nuclear – in the early stages of the volunteer process is not clearly explained. It is at this early stage in the development of ideas that people will be in the greatest need for clear authoritative information from trustworthy sources. As expertise develops so will discernment but, at the beginning, people will wish to have confidence in the information they receive. It is not apparent to CoRWM who is to provide this information. Government does not wish to be involved because if they went out to communities this might be viewed as targeting volunteers, the NDA feels it cannot become involved in the site selection process until partnerships are in place, largely for the same reasons, and CoRWM cannot fulfil this role because this would conflict with its scrutinising remit and it does not, in any event, have the resources to undertake such work.

### ***Dealing with Uncertainties***

10. CoRWM recommended geological disposal as the best option available at the present time. It did not say that a GDF was a guaranteed solution to the problem

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<sup>9</sup> Paragraph 8.3 states that the option to express and interest will be left open for the foreseeable future.

of long term management of radioactive waste<sup>10</sup> because it is not possible to make such a statement. All the indications suggested to CoRWM that this option was worth pursuing because there seemed to be a good prospect that the remaining uncertainties could be resolved through further research or could be addressed through a risk assessment process. The Committee considers that the language used in the White Paper is in places too confident and optimistic. The case for geological disposal might prove more acceptable to the public if the uncertainties were acknowledged up-front. To raise false expectations and/or appear to smooth over the difficulties at this early stage does not set a good standard for future deliberations and will do nothing to enhance public confidence. Box 3 on geological disposal internationally provides an example. This creates the impression that the UK is one of many countries taking the same course of action but it glosses over the fact that the UK's waste inventory is very different from that of most other countries.

11. In this respect, it is worth referring to the consultation exercise that preceded the publication of this White Paper and informed its contents. A summary and analysis of these responses has been published<sup>11</sup> which attempts to present the range of views submitted. In many cases there is no clear preference for one course of action over another and this problem is made more difficult to interpret because not all respondents responded to all questions and it is not possible to deduce what the nil returns imply. CoRWM members have read some of the responses and have concluded that there is a wealth of useful information there that Government could use in its public and stakeholder engagement on MRWS. Government analysed the responses in detail to assist it in drawing up issues to be addressed in the White Paper. **CoRWM advises Government to publish this more detailed analysis of responses because it believes this will go some way to re-assuring the public that Government is aware that there are still many uncertainties surrounding a number of issues.**

12. Making decisions on and planning developments of long term management facilities for radioactive waste is notoriously difficult because of the many uncertainties surrounding the subject. Some of these uncertainties cannot be resolved at this time, hence the need for more research. Others may never be resolved prior to the need to make a decision, hence the need to provide an adaptive management system that can address uncertainties in a risk-based approach. It is CoRWM's view that most people will understand and accept the need to work around these uncertainties if the situation is carefully explained to

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<sup>10</sup> In Recommendation 2 of its report CoRWM recommends "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 ..." (emphasis added). Available at [www.corwm.org.uk](http://www.corwm.org.uk).

<sup>11</sup> See note 6 above.

them. The White Paper does not do this but, instead, either ignores or glosses over uncertainties or implies that these will be readily resolved in due course.

13. Furthermore the White Paper adds to the uncertainties, especially those that will be faced by local communities considering whether to accept the invitation. The timing of the invitation could hardly have been worse because of the following reasons:

- Uncertainties over the waste inventory because of the prospect of new build and the lack of any decisions over materials not currently considered to be waste.
- Uncertainty over what is going to happen to ‘Scottish waste’.
- Uncertainty over how the decision-making in the planning regime in England and Wales will be carried out.

### ***The Waste Inventory***

14. People will wish to know how much, and what sort of, waste they are committing themselves to. Without clearer understanding of the intended inventory it is difficult to scope the scale of the GDF project in terms of space or time. A facility designed to take new build waste would need to be larger than one restricted to legacy waste and would need to be open for longer.

15. Defining waste in terms of what it does not include, as in paragraph 3.2, is not helpful for people who have little knowledge of the subject, especially as the exclusions are expressed in rather obscure language.

16. The reference to other materials that “may ... need to be managed through geological disposal” (paragraph 3.5) not only makes it impossible to determine the size of the inventory but also suggests a lack of adequate preparation before publication of the White Paper, especially as no dates for reaching decisions are indicated. Simply stating that “in the meantime the NDA will factor possible inclusion of all these materials into the design and development of the geological disposal facility” is unlikely to inspire confidence.

17. Turning to new build, the White Paper<sup>12</sup> refers to CoRWM’s opinion that “should a new build programme be introduced... it would require a quite separate process to test and validate proposals for the management of wastes arising” but the text that follows does not make it clear to what extent Government considers that it has addressed this need through the nuclear consultation<sup>13</sup>. The statement that

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<sup>12</sup> Paragraph 3.18.

<sup>13</sup> DTI. *The future of nuclear power. The role of nuclear power in a low carbon UK economy: consultation document*. May 2007.

the “inclusion of new waste will be taken forward in discussion with host communities as the programme proceeds”<sup>14</sup> adds to the uncertainty.

### ***How many facilities***

18. Government’s stated preference is for a single GDF. The fact that Scotland is not party to the White Paper strongly implies that there will need to be more than one long term management facility for higher activity wastes in the UK so there are strong reasons for thinking that the single site option will not be achievable. There are also serious concerns amongst some specialists that it will not be possible to co-dispose of the full range of wastes. These concerns are referred to in the White Paper but paragraph 4.25, nevertheless states that “in principle the UK Government sees no case for having separate facilities if one facility can be developed to provide suitable, safe containment for the Baseline Inventory. ... There is no reason why this should not be technically possible, in theory, although the final decision would be made in the light of the latest technical and scientific information, international best practice and site specific environmental, safety and security assessments.” This statement suggests that it would take a lot to change Government’s mind on this issue.

### ***Retrievability***

19. As noted in the White Paper<sup>15</sup>, Government acknowledges that there is a divergence of views on the issue of retrievability but considers that “closure at the earliest opportunity provides greater safety greater security from terrorist attack, and minimises the burdens of cost, effort and worker radiation dose transferred to future generations”. It has, nevertheless, decided to leave open the question of retrievability. It is CoRWM’s view that by delaying making a decision on this issue, Government has left open an area of considerable potential disagreement and controversy. The suggestion that in the meantime before a final decision on this issue is made “the planning, design and construction can be carried out in such a way that the option of retrievability is not excluded”<sup>16</sup> may raise expectations that retrievability is a practicable option that can be decided upon simply as a matter of choice.

20. This ignores the fact that, while it is desirable to discuss retrievability with potential host communities, it may not be technically practicable to leave a GDF open for long periods without compromising its post-closure safety. There is also the ethical issue of leaving a decision on GDF closure, and its implementation, to future generations.

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<sup>14</sup> Paragraph 3.22.

<sup>15</sup> Paragraph 4.20.

<sup>16</sup> Paragraph 4.22.

### ***The Planning Regime***

21. The voluntary approach is based on the idea that local communities will play an active, participatory role in site selection. Under the present town and country planning regime in England and Wales, Local Planning Authorities are important players in the decision-making process. Even if an application is called in for consideration by ministers, as would almost certainly be the case for a GDF (but not an Underground Research Laboratory (URL)), a Local Inquiry would be held providing ample opportunity for local engagement. The White Paper was published while the Planning Bill was going through Parliament. Until the legislation is finally enacted (probably in Autumn 2008), there will be considerable uncertainty as to what process will be involved in determining planning aspects of a GDF or even what those planning aspects will be. The Bill applies to England and Wales but, because planning is a devolved matter in Wales, detailed implementation is likely to be different in the two administrations. At the moment, a GDF does not come within the list of developments to be covered by the Infrastructure Planning Commission introduced in the Bill. Although “Government is currently inclined to look towards applying the new planning system”<sup>17</sup> it has not yet made up its mind.
22. No decision appears to have been made on whether a separate planning application will be necessary for a URL and then a GDF or if a single application could be made for a GDF to include the necessary investigative work that would be covered in a URL. The two-stage process was the one adopted in the previous GDF programme but did not get beyond the first stage because Nirex’s planning application for a Rock Characterisation Facility was refused. There is no explanation of why it is considered that this approach may no longer be appropriate. Reference to a ‘parameter-based’ approach “where the characteristics of the facility would be defined in such a way to allow the environmental and other impacts of the proposal to be described, and any appropriate mitigation measures to be identified”<sup>18</sup> are unlikely to give confidence to local communities that a single application, should this approach be adopted, will not prejudice their opportunity to challenge plans for implementation.

### ***‘Plan B’***

23. Paragraph 6.5 states that “in the event that at some point in the future, voluntarism and partnership does not look likely to work Government reserves the right to explore other approaches”. CoRWM understands that there is a reluctance to keep the voluntary approach completely open-ended as this does not provide any incentive to reach a firm decision. However, the statement could prove counter-productive. It has been pointed out to us that some local authorities might be reluctant to put their names forward at all because, even if

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<sup>17</sup> Paragraph 5.30.

<sup>18</sup> Paragraph 5.36.



they subsequently exercised their rights to withdraw, sufficient work might have been undertaken on their area for Government to be able to select it if and when a different approach to site selection was adopted.

### **Funding**

24. Funding issues are not adequately addressed in the White Paper. This is important to potential volunteers for two reasons. First they will wish to be reassured that there is a long term provision to ensure that a GDF, once embarked upon, will be taken through to completion. In the event that circumstances lead to the GDF construction being abandoned, communities will need to know that funding will be made available to enable the site to be restored. No community will wish to be saddled with an abandoned development.
25. Secondly, there is uncertainty over the provision of funds for the engagement package. Paragraph 6.47 refers to responses to the consultation suggesting a need for greater clarity on engagement packages yet paragraph 6.48, while stating that costs of local community engagement will be funded, leaves considerable uncertainties by going on to state that “what support, and the point at which it is available will be something to be considered in the scope of initial discussions”.
26. Thirdly, the community benefits package is dependent on the provision of funds. Recent experience with the use of planning agreements to provide community benefits in relation to the LLW Repository has raised expectations. The White Paper is muddled and confusing over the community benefits package and it is not clear what Government intends here. References to incidental community benefits through incoming jobs naturally associated with the GDF development (paragraphs 6.54-6.55) do not inspire confidence. Local communities are likely to be looking for something over and above this, as is stated in the White Paper, but are unlikely to come away confident that this will in fact happen, especially given the statement in paragraph 6.57 that there “**may** be other benefits which **may** be commensurate with developing the social and economic wellbeing of a community that has decided to fulfil such an essential service to the nation” (emphasis added). Much would seem to depend on the response of Treasury. References to subjective terms such as “affordable” and “value for money considerations”<sup>19</sup>, while understandable from a Government perspective, may cause people to doubt whether their aspirations will be met by Government’s understanding of what is affordable or value for money.

### **The Key Players – Who does What to Who and When**

27. There is confusion over the roles of the key players in the implementation process. These would seem to be, in England, central government departments

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<sup>19</sup> Paragraph 6.60.

such as Defra, BERR, Treasury, inter-governmental committees, local authorities, the NDA and its RWMD shortly to become the Site Licence Company, the Environment Agency, the NII, the OCNS, CoRWM, and the various local partners in the partnership. It is not clear what the respective roles are, especially that of the NDA and its RWMD; indeed the impression is given that this has not been thought through as yet. The issue raised in paragraph 9 above is an example of the difficulties that might arise if these roles and responsibilities are not clarified.

28. The White Paper does not take forward the discussion on what constitutes a community or how different communities are going to work together within a partnership. Noting that all three levels of community will need to liaise closely with one another (paragraph 6.9) without offering any suggestions as to how this might be done is not encouraging for prospective communities. One issue of potential conflict is the extent to which affected communities will be able to influence the decision and whether or not they will be eligible for any form of community benefit, or indeed, engagement package. The voluntary approach can only work within some clearly defined boundaries with clear rules and criteria for engagement. CoRWM is not convinced that these can be left to develop as the need arises and believes they should be clearly stated at the outset. Leaving the decision to be made on a case by case basis raises the possibility of considerable antagonism and controversy over which interests should or should not be included.

### ***Site Selection Criteria***

29. The same argument applies to the site selection criteria. A clear understanding of what the 'test' will be needs to be in place before any detailed assessments of sites are undertaken. This is important for public perception purposes and also to avoid unnecessary expenditure of time and resources investigating the geological and/or social suitability of sites that will likely fail to meet one or more criteria.

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8 September 2008