

Nuclear Waste GDF Siting Process Review Consultation

Response from Professor John Shepherd (in a personal capacity)

1. Do you agree that a test of public support should be taken before the representative authority loses the Right of Withdrawal?

Yes, but I think it is unrealistic (and probably unhelpful) to talk about the representative authority “losing” the Right of Withdrawal. In practice if a community ever decides to withdraw its support, it can and will do so, and that situation would have to be dealt with somehow. Also, the proposal to make District Councils the “representative authority” is likely to be perceived as a cynical device to exclude the County Council and adjacent Districts from the process (despite the proposals for consultation). Given the (generally poor) level of competence and technical ability of most District Councils I do not think that this is a credible process anyway.

If so, what do you think would be the most appropriate means of testing public support, and when should it take place?

I suspect that only a referendum of the District concerned, adjacent Districts, and the County would be perceived as legitimate (NB these could be separate so that the results could be weighted in some way). Unless consent is eventually obtained at **all** these levels there will most likely be opposition that may de-rail the process.

If you do not agree with the need for such a test, please explain why.

n/a

2. Do you agree with the proposed amendments to decision making within the MRWS siting process?

Only up to a point. The proposal to adopt a more continuous process is sensible, but the distinction between Learning and Focussing stages probably still needs to be more fluid (see below)

If not, how would you modify the proposed phased approach, or, alternatively, what different approach would you propose? Please explain your reasoning.

The goal is to build a consensus such that interested parties at all levels are content with all aspects of the proposals. That almost certainly requires a **more continuous and somewhat iterative process**. All aspects really need to be considered in parallel from the outset, at some appropriate level of detail (not just geology & socio-economics). Promises that important issues (e.g. engineering, safety, or health & environmental impacts) can be deferred and will be assessed by other bodies at a later stage are unlikely to be trusted as acceptable or be helpful to this process. A progression from generic to specific & more detailed studies is possibly the only viable approach.

3. Do you agree with this approach to revising roles in the siting process set out in the White Paper?

Yes. Only national & government level bodies really have the competence to deal with the technicalities and complexity of the issues adequately, and involvement of these throughout the process, initially primarily in an advisory role, is really inescapable. NGOs are also now *de facto* interested parties and need to be involved in consensus-building throughout. **I strongly support the use of independent peer-review groups** to evaluate and comment on technical reports (etc). I have

some experience of this in the context of controversial off-shore decommissioning projects, and it can help to ensure high quality work, assist in communication, and help to establish public confidence very effectively. Such groups must be free to publish their findings, and can & should supplement and support (rather than replace) the role of statutory regulators.

If not, what alternative approach would you propose and why?

I suggest that it may be desirable to establish separate review groups for each of the main scientific & technical aspects (geology, engineering, health & environment, socio-economics), rather than any of the options listed at paragraph 2.85. Such groups can have a degree of continuity and establish familiarity with their subjects, and also become known to stakeholders.

4. Do you agree with this proposed approach to assessing geological suitability as part of the MRWS siting process?

Up to a point. I support the intention to provide UK-wide information, but find the continued emphasis on a binary suitable/unsuitable classification unhelpful.

If not, what alternative approach would you propose and why?

I would suggest a much more nuanced approach to this issue, since (as stated on p37) numerous geological contexts may be suitable, subject to appropriate engineering (not necessarily the archetypal horizontal galleried design usually depicted). The word “screening” is not appropriate, as what is required is an assessment or evaluation. Use of a graduated (say 5-point) scale of geological suitability may be more helpful, possibly based on an explicit multi-criterion approach to deal with the various relevant aspects (including hydrogeology, geochemistry etc). An isolated and small geologically suitable location within an otherwise unsuitable province is unlikely to inspire confidence. A suitable location within a much more extensive area is likely to be more convincing as an appropriate choice. An excessive focus on immediate local properties should therefore be avoided.

5. Do you agree with this proposed approach to planning for a GDF?

Yes, but only up to a point. I think that it will be necessary to engage with and obtain consent from all levels of local government. The planning process can be used to manage this, but excessive reliance on the “representative authority” or the statutory planning authority alone would be unwise. I strongly support the intention to ensure that adequate EIAs (both strategic & project-specific) under the EIA Regulations, and Appropriate Assessments under the Habitats Regulations are undertaken, as early on as is reasonably achievable.

If not, what alternative approach would you propose and why?

Some mechanism that involves all relevant levels in the local authority hierarchy efficiently & effectively needs to be devised (but sadly I’m not sure what that should be).

6. Do you agree with this clarification of the inventory for geological disposal — and how this will be communicated with the volunteer host community?

Yes: this is another situation where independent peer review is likely to be helpful (maybe CoRWM itself in this case)

If not, what alternative approach would you propose and why?

n/a

7. Do you endorse the proposed approach on community benefits associated with a GDF?

Yes, broadly

If not, what alternative approach would you propose and why?

See comments concerning multiple levels of the hierarchy above.

8. Do you agree with the proposed approach to addressing potential socio-economic and environmental effects that might come from hosting a GDF?

Yes, but it is important that the environmental aspects (which are mentioned explicitly here, but not along with geological & socio-economic issues in Chapter 2) are considered comprehensively (not just focusing on local issues such as noise, road traffic, etc). Appropriate assessments should be undertaken at an early stage, along with the geological and socio-economic reports mentioned at paragraphs 2.46 and 2.50

If not, what alternative approach would you propose and why?

Concerns about possible contamination of the environment are **not** restricted to the immediate locality of a repository, so an excessively localized approach is inappropriate. It is important that the spatial scale considered is appropriate to the nature of the hazard (e.g. allowing for groundwater transport etc).

9 Do you have any other comments?

(a) As is explicitly recognized in paragraph 3.21, there are six or seven relevant major criteria (the list there excludes engineering feasibility/complexity). In my opinion it is important that all of these are considered in parallel (not sequentially) and that none is allowed to play a dominant role. It is likely that some form of explicit and formal Multi-Criterion Decision Analysis will be necessary and desirable, but this need not (and ideally should not) be very complex or unduly mechanistic. Even some simple form of unbiased presentation of an evaluation according to the various criteria (such as a radar plot) can be extremely helpful in forming a synthesis as a basis for discussion and a guide to a final choice.

(b) The whole subject is bedevilled by the extremely poor public understanding of the risks associated with radioactivity in the environment, and the historic use of extremely conservative assumptions and safety factors. Part of the process should be a sustained campaign to improve public awareness & understanding of these risks.

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