

From: Hollands, Judith [mailto:judith.hollands@nda.gov.uk] **On Behalf Of** foi
Sent: 08 July 2008 09:26
To: Jean McSorley
Cc: Simper, Adrian
Subject: 8202043 - NDA response
Importance: High

Dear Jean,

I am writing in response to your Freedom of Information request to Richard Waite on 23 June in relation to Spent Fuel Storage and Richard's presentation at the 17th June Cumbria County Council seminar on the recent Managing Radioactive Waste Safely white paper.

It is perhaps useful to recap that the NDA last year completed a Study of the options for spent fuel management, and the process and outcomes were shared with an NSG sub-group, of which I believe you were a member. The three bounding scenarios considered were the "immobilisation and disposal" of spent fuels, the "maximum recycle" of the spent fuel, and also a "store" option for up to three hundred years (in line with CoRWM recommendations), which would enable future generations to switch to dispose or recycle at a future date as appropriate. The NDA is in the process of advancing the output from that Study to a position where NDA policy options, preferences or recommendations can be made to Government in the short term.

In saying that "we need to think very carefully about whether we want to dispose of spent fuel" Richard was illustrating the store option described above. He was also reflecting on the fact that around the world many countries, France for example, take the view that spent fuel has, in certain circumstances, value as an energy resource either through recycle as MoX in thermal reactors or for use in fast neutron reactors. Disposal forecloses the use of spent fuel in this way. Similarly there are arguments that by recycling the transuranic elements of spent fuel, the radio toxicity burden that the disposal facility has to safely manage is reduced. These factors need to be carefully considered.

It may be useful to clarify that by Disposal we mean disposed of without intent to retrieve. Although disposal facilities are likely to be designed so as to not preclude retrieval, retrieval would be something done exceptionally and not included as part of the design requirement for routine operations. Disposal is quite different, therefore, from interim storage, where recovery is designed in as a routine operation, even if the periods of time under consideration are very long. This is an important distinction to bear in mind when interpreting Richard's statement that we need to think carefully about whether we want to *dispose* of spent fuel.

Richard was not indicating that a decision has been made on this, nor was he particularly indicating a direction of travel but was openly sharing the thinking that NDA is duty bound to engage in. Of course, such a decision on the management of spent fuel will be subject to significant stakeholder engagement and debate and a final decision would be for government. As Richard indicated, NDA is not the only player since the spent fuel from a new nuclear programme will also have to be considered and this is not a matter for NDA.

In respect of your specific questions:

- 1) I am not aware of any approach by potential reactor vendors or operators with a view to the storage of spent nuclear fuel followed by reprocessing from new build rather than the direct disposal option in the white paper. NDA is certainly not pursuing business opportunities in this area.
- 2) I assume that by "proposal" you mean Richard's indication that long term storage might be an option. As indicated above, this is no more than sharing that the management of spent fuel needs proper consideration. It is not the floating of any specific proposal.

- 3) The means of storage of spent fuel would depend on the period of storage and the purpose of storage. I refer to the importance of distinguishing long term storage from disposal. It is possible that a long term store may be a “repository” with recovery designed in.
- 4) If, and I reiterate there is no proposal, there is to be long term storage rather than disposal of spent nuclear fuel then an appropriate location would have to be chosen. It would be disingenuous to claim Sellafield would not be a candidate, but there is not a foregone conclusion (and indeed can't be since there is no proposal)
- 5 NDA will not be actively progressing the matter of 200 year storage of spent fuel from new build. This is entirely a matter for Government. The current position in the new build white paper is clear – that the fuel would be stored on site pending disposal. Any changes to this policy position would be managed by Government. NDA will remain focussed on its mission of decommissioning and clean-up of legacy wastes and facilities and implementation of the Geological Disposal Facility. We do of course share thinking with government policy makers.
- 6 As we discussed when we last met NDA needs to consider all options for the fuel from the AGR fleet. We already know that the entire AGR fuel stocks cannot credibly be reprocessed through the existing Sellafield reprocessing capability (THORP) and so something else will have to be done with the fuel. The current plan is that this will involve some form of longer term storage pending disposal in the GDF. Such storage would not preclude a future change in policy for the management of the fuel but ,again, this would be subject to wide consultation and ultimately Government approval.

In short, Richard was sharing with the group some of the thinking that needs to happen as we (the sector collectively) consider the back end of any new nuclear programme and was not making any definitive statement of new policy. There is no explicit proposal (at least that NDA is aware of) to move the policy position in respect of spent fuel arising from new nuclear generation from that in the white paper of storage at site pending disposal. Similarly the position in respect of AGR fuel remains as it was when we last spoke, that a certain amount will be reprocessed and a certain amount will necessarily require some form of storage pending disposal.

As always I would be happy to discuss this with you.

Dr Adrian M Simper

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From: Jean McSorley [mailto:Jean.McSorley@uk.greenpeace.org]
Sent: 23 June 2008 16:18
To: Waite, Richard; Hollands, Judith
Subject: FOI spent fuel storage 200 years

Dear Richard

I am writing to you on behalf of Greenpeace to request the following information under the Freedom of Information Act and the Environmental Information Regulations.

The information requested concerns responses to questions - by you - following your presentation on 17th June at the seminar for Cumbria County Council on the White Paper on Managing Radioactive Waste Safely.

In reply to a question concerning whether or not new build spent fuel should be disposed or reprocessed you replied "we need to think very carefully about whether we want to dispose of spent fuel."

You then raised the issue of the possibility of dry storage of spent fuel from new build for 200 years - in safe and secure storage.

You said the matter would be taken to Government rather than the NDA just using the baseline assumption (for wastes for disposal). Can you please clarify exactly what is meant by this?

In addition to seeking clarification on the above points, there are a number of other questions on this matter. These are:

1. Has the NDA been approached by any potential reactor vendors/operators with a view to storage of spent fuel from new build (for 200 years) - followed by reprocessing - rather than the direct disposal option in the White Paper on nuclear power?
2. If not, where has this 'proposal' come from?
3. It is envisaged that the possibility of 'storage' of spent fuel from new build be in above ground stores or in a repository?
4. Would 200 year storage be at a central store (e.g. at Sellafield) or at reactor sites?
4. Exactly when and how will the NDA progress the issue of 200 years storage of spent fuel? At what point in the new build process would this be discussed and at what point in the repository process? How will the matter be consulted on nationally and with local stakeholders (at reactor sites)
5. Is the NDA now also considering longer term storage of uncontracted spent fuel from British Energy's current operation pending possible reprocessing?

Many thanks for your attention to this matter.

Regards

Jean McSorley
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