

## **WEST CUMBRIA & NORTH LAKES FRIENDS OF THE EARTH**

### **Management of the UK's Plutonium Stock**

#### **Submission to DECC Consultation**

##### **Overview**

The main point that needs to be made is that this consultation, despite the fact that it follows from several other consultations on this question, is premature. It is premature because insufficient work has been done to better understand the consequences and cost of the various methods of managing the UK's Pu stock. So ironically, it is also belated.

For the people of W Cumbria, the place where much of this stock is located, the delay in resolving the issue is very much regretted, and the prospect of another MOX plant is greeted with astonishment amongst many here, given the woeful failure and financial embarrassment of the previous one.

This latest consultation document and the current context provides little to convince us that the options offered for re-use seem any more realistic than previously.

##### **Immobilization**

The option that we would like to see explored more effectively is immobilization. The government claims that this is a new technology, and is therefore not prepared to 'pioneer' it. But there is in fact a substantial literature already. More important, the benefits of immobilization are considerably superior to the other options in many respects, and so should be taken seriously. Immobilization would put both reactor-grade and weapons-grade plutonium beyond reach as far as use for weapons is concerned. The reduction of proliferation risk is an important part of Government policy, strongly supported by public opinion in the UK, and the international community, and this strategy would align with that view. It would also minimise any health effects from this very dangerous substance compared to using it as fuel.

We wish to see immobilization explored more fully as an option for the management of plutonium. If the NDA is prepared to consider the unproven technology of fast reactors - PRISM and CANDU – then immobilization, with its significant benefits, must be explored too.

##### **Question One**

**Do respondents agree with the Government's view that it is sensible to issue generic guidance for the re-use of plutonium?**

This question should be broadened to cover plutonium management, so that other techniques such as immobilization can be included. Re-use is too narrow a concept, given the uncertainty at present about the viability of alternatives currently being considered. If the NDA can investigate reactor-based alternatives to MOX, it should also examine immobilization.

##### **Question Two**

**Are the proposed application and decision-making processes clear, appropriate and proportionate?**

A new Justifying Authority is needed because DECC has already expressed its view on plutonium management and so there is a conflict of interest.

**Question Three**

**Is the indicative list of information in Table 3 sufficient and appropriate to assist in the making of justification applications and justification decisions?  
Does the indicative list omit any relevant information or include any unnecessary information?**

We support the proposals made by in the NFLA submission which are consistent with our view that the notion of plutonium re-use is too narrow, and needs to be extended to embrace plutonium management.

**Question Four**

**Are there any other ways in which the draft justification process can be improved?**

The Draft justification process needs to keep up better with developments in what has now become rather a rapidly changing field.

Since DECC's last consultation in February 2011, the environment has changed radically, in particular as a result of the Fukushima accident in Japan, which has had a big impact on the commercial environment. However, the Weightman Report states that the accident does not 'add to knowledge about the safety case of the use of MOX' fuel in reactors in the UK (ONR 2012). The health implications of the development of a MOX plant must be fully examined before licensing can take place, otherwise there is a risk that the fuel produced cannot be licensed for use in UK reactors.

Prof Allison Macfarlane, chair of the US Nuclear Regulatory Commission has called on the UK to consider plutonium immobilization (Von Hippel et al 2012). CORWM has expressed concerns about the lack of work on disposal of spent MOX fuel at its meeting in February 2011.

Furthermore, the NDA's position has changed in several respects over re-use options in recent months.

**W Cumbria & N Lakes FoE  
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