3 May 2011

Dear Sir/Madam,

COMMENTS ON PLUTONIUM MANAGEMENT CONSULTATION

I write on behalf of NuLeAF, which is a Special Interest Group of the Local Government Association that seeks to represent the views of its member local authorities in England and Wales on nuclear legacy management issues and developments that may impact upon that management.

The comments below were finalised after discussion in the NuLeAF Steering Group on 13 April.

1 Do you agree that it is not realistic for the UK Government to wait until fast breeder reactor technology is commercially available before taking a decision on how to manage plutonium stocks?

Yes, there are a number of significant drivers for change, including:

- the need for the ongoing refurbishment or replacement of specialist and costly plutonium storage facilities;
- uncertainties about the ageing processes that may affect plutonium in long-term storage;
- the finite life of packaging and the likely need for periodic re-packaging;
- the radioactive decay of plutonium to americium, which is more challenging from a dose and heat perspective, thereby making the plutonium more complex and costly to handle over time;
- the inherent un-sustainability of long-term storage with site clearance at Sellafield by 2120;
- the early need to more accurately characterise the inventory for eventual disposal to a geological disposal facility; and
- the responsibility of this generation not to defer difficult decisions and costs to the next generation.

These drivers provide significant reasons to implement options other than the continued storage of separated plutonium.

2 Do you agree that the UK Government has got to the point where a strategic sift of the options can be taken?

Yes, in principle, although we have comments on the actual strategic sift that is proposed.

As stated in our comments on the NDA"s Plutonium Options paper in October 2008 (http://www.nuleaf.org.uk/nuleaf/documents/NDA_Plutonium_Options_Response_1_Oct_08.pdf), we agree that some of the specific approaches to immobilisation

should be ruled out at this stage (namely immobilisation (a) with HLW in glass and (b) in cement).

We would also request that the Government clarify whether further consideration will be given to the potential use of Inert Matrix Fuel (IMF) in the on-going further work on the reuse option. We note the conclusions of the BNFL National Dialogue that IMF may offer significant advantages over MOX in terms of intrinsic proliferation resistance and enhanced disposability.

3 Are the conditions that a preferred option must in due course meet, the right ones?

We note the proposed conditions, that the preferred option:

- must be achievable and deliverable
- must be shown to be capable of meeting health, safety and environmental requirements as well as meeting non-proliferation and security objectives
- must demonstrate that it provides value for money and is of overall benefit to the UK.

We propose that a further condition be adopted by Government. This is that the preferred option be “capable of inspiring public confidence”. The Government will note that this was the formulation set in CoRWM‟s original terms of reference for consideration of long-term management options for higher activity wastes.

As the long-term management of plutonium also raises substantive societal issues, we consider that such a condition would be appropriate. Note that we do not intend this to mean that the Government should run a similar scale of public and stakeholder engagement to CoRWM in the period 2003-6. However, we do think that Government should consider how judgements might be reached about whether a “capable of inspiring public confidence” condition has been met.

Subject to this additional proposed condition, we consider that, at a very high level, the proposed conditions appear to be the right ones. However, we wish to stress the importance and weight that should be attached to the first two conditions and would welcome further clarification of: (a) what factors the Government intends to take into account to make judgements that the conditions can be met; and (b) how judgements will be reached (including what assessments will be undertaken).

4 Is the UK Government doing the right thing by taking a preliminary policy view and setting out a strategic direction in this area now?

In principle, we think it appropriate that the Government takes a preliminary policy view and sets a strategic direction, and that it should publish a clear statement setting out the reasons for its choice.

Nonetheless, we would also like to stress the importance of giving continued support to on-going work on alternatives, so that realistic contingencies can be

developed should a preferred option ultimately not meet the conditions outlined above.

5 Is there any other evidence government should consider in coming to a preliminary view?

There is a need for Government to carefully consider how and when to seek the views of potential host communities and their local authorities with regard to:

- the siting process for a Geological Disposal Facility (GDF);
- the siting of any new MOX fuel fabrication plant; and
- the potential use of MOX fuel in proposed new nuclear power stations.

On the siting of a GDF, as a starting point, potential host communities and their local authorities will wish to understand the implications of reuse and immobilisation options for (i) the design of a GDF and surface facilities, (ii) the size of the underground footprint, (iii) the period of operation of the GDF, (iv) the developing GDF safety case, (v) the number of required GDFs and (vi) the use of alternative disposal methods.

On the potential siting of a new MOX plant, potential host communities and their local authorities will wish to understand the implications for (i) security arrangements for the manufacture, buffer storage and transport of fresh MOX fuel and (ii) other local impacts and socio-economic benefits.

On the potential use of MOX fuel in proposed new nuclear power stations, as a stating point, potential host communities and their local authorities will wish to understand the implications for (i) safety case development and licensing of a new nuclear power station, (ii) security arrangements for the transport, receipt and storage of fresh MOX fuel and for the interim storage and transport of spent MOX fuel, and (iii) the duration of the interim storage of spent MOX fuel at the nuclear power station site.

We note that consuming the bulk of the plutonium stockpile “in situ” – in one or more dedicated MOX burning reactors on available land beside the Sellafield and NuGeneration Ltd sites in West Cumbria – could provide significant safety and security benefits compared to use in other new nuclear power stations that may be built in other parts of the country.

It will be important for Government to give careful consideration to the impacts that potential approaches to plutonium management are likely to have on local confidence in GDF siting and/or construction of new nuclear power stations.

6 Has the UK Government selected the right preliminary view?

There are a range of views (positive and negative) amongst NuLeAF member local authorities about whether the Government has selected the right preliminary view.

Notwithstanding this, we wish to propose that Government give closer consideration to the pros and cons of moving forward more promptly with the immobilisation of that proportion of the plutonium stockpile that is unlikely to be reusable as a reactor fuel. We suggest that this consideration focus on the potential for producing a “low specification MOX” waste form using the existing Sellafield MOX plant (SMP), once commercial contracts for MOX fuel production have been completed. We would encourage the Government to publish the results of this further consideration.

This proposal takes account of the Government’s view that:

- the technology to make “low specification MOX” pellets is well developed (para 3.25);
- it may be possible to adapt the existing SMP to produce some “low specification MOX”, but there would not be enough remaining design life for it to be used to convert the entire UK stockpile (para 3.32).

7 Are there any other high level options that the UK Government should consider for long-term management of plutonium?

See the comments above about IMF (response to Q2) and a “low specification MOX” waste form (response to Q6).

Yours faithfully,

Fred Barker

Executive Director