



15 April 2011

We write in response to your public consultation on the management of the UK's plutonium stocks. First we welcome the desire of Government to address this important and long-standing issue. The stocks of separated plutonium in the UK have mainly arisen from reprocessing operations at Sellafield, operations that have supported low-carbon, sustainable power generation in the UK over many decades. While this material is safely and securely stored at present, there are undoubted safety, security, moral and economic benefits from using this material for further power generation on an early timescale, thus minimising the need for future, extensive and expensive storage facilities. Early commitment to re-use also provides continuing international leadership by the UK in responsibly managing sensitive nuclear materials. Taking the specific questions in your consultation document in turn:

#### Question 1

We fully agree that it is not realistic to wait until fast breeder technology is commercially available before taking a decision on the management of plutonium stocks. While fast breeder technology may well become commercially viable in due course, this will clearly not be for some decades. Waiting for this creates a number of issues. While the UK stocks of plutonium are safely and securely stored at present, continuing storage represents a considerable cost as stores need to be managed and replaced as they reach the end of their useful lives. Additionally, an extended delay in making a decision on the future of plutonium stocks somewhat undermines the UK's international leadership position on the responsible use of sensitive nuclear materials. But, perhaps most important, the quality of plutonium degrades with time due to natural radioactive decay processes. These processes lead to the in-growth of impurities in the plutonium which are both costly to remove (prior to reuse) and increase the radiation doses to plant operators during

#### Question 2

We fully agree that there is now sufficient information available to enable a view to be taken on options for the management of plutonium stocks. In essence there are only two solutions to the management of plutonium stocks – re-use and disposal. The current position of 'indefinite storage' is unsustainable for the reasons outlined in our response to question 1 above. While it is always possible that technology will advance and new techniques may become available in the future, these can realistically only be variations on the two fundamental solutions of re-use and disposal. Keeping all options open, while attractive on one level, serves only to make the implementation of the ultimate solution harder (due to the degradation of the plutonium) and prevents the realisation of the benefits of tackling the issue early. Delay inevitably increases costs. We firmly believe there is sufficient, internationally recognised evidence and experience to allow decisions to be taken now.

#### Question 3

We are content that the conditions identified in the consultation document should be satisfied before a final decision is taken to implement the preferred solution. That said, we are strongly of the view that the first two conditions can be satisfied now. While the Sellafield MOX Plant has had technical issues, there is significant international experience of successful and economic MOX fuel manufacture and use. Despite the technical issues with SMP, the plant is demonstrably safe and environmentally benign and complies with all international security and safeguards (non-

proliferation) requirements. Other MOX fuel manufacturing plants in operation or under construction in other parts of the world meet similar standards. As responsible operators of many nuclear facilities we would not support any proposals that did not meet the highest standards of safety, environmental protection, security and non-proliferation requirements. We also support the need to demonstrate that the solution being implemented provides value and is of overall benefit to the UK . We believe that an early decision to re-use plutonium as MOX fuel will be of demonstrable benefit to the UK (domestically and internationally) and will be shown to represent value for money.

#### Question 4

We believe the UK Government is doing the right thing by taking a policy view now. For the reasons identified above we are strongly of the view that decisions taken on an early timescale are in the best interest of the nation and will provide the best value proposition. There is a wealth of evidence to show that sufficient information exists now to enable policy decisions to be taken and we fully support the setting of clear direction in this area.

#### Question 5

We do not believe that further evidence is needed to enable a preliminary view to be taken. While we understand, appreciate and support the desire for Government to engage the private sector in finalising and implementing a re-use option, the management of the UK 's stocks of plutonium is ultimately the responsibility of Government and we would not wish to see action delayed by the pursuit of potentially unachievable desires in this area.

#### Question 6

We believe that Government has selected the right preliminary view. There is a wealth of evidence that shows re-use as MOX fuel to be technically and economically viable and implementable in a safe, secure and environmentally responsible manner. Re-use is also wholly in tune with the more general ethos of maximising the benefit from the use of natural resources and recycling those resources wherever possible. In our view the stocks of plutonium in the UK represent an energy bank. The disposal of this material would be grossly wasteful, inconsistent with the general philosophy of recycling and will result in a far greater technical and social challenge to the ultimate geological disposal of nuclear wastes. Material to be disposed of in the geological disposal facility should be minimised wherever possible for technical, economic and social reasons. We believe that a clear commitment to this approach will maximise the likelihood of communities volunteering to host a geological disposal facility.

We also support the view that the UK Government should consider offering to take ownership of foreign owned plutonium and treat it in the same way as UK plutonium. We believe that this has the potential to allow the UK to help others deal with their materials, to ensure that this is done to the highest standards and to extract value from foreign owned materials currently held in the UK .

#### Question 7

We do not believe there are any other, credible options for the long-term management of plutonium.

Secretary to the Joint Committee