Nuclear Industry Association

Nuclear Industry Association response to the Department of Energy and Climate Change's public consultation into the management of the UK's plutonium stocks

The Nuclear Industry Association (NIA) welcomes this opportunity to comment on the Government's proposals for the long-term management of UK owned separated civil plutonium. This is an important issue, not least in terms of the UK's leading role in encouraging sustainability and non-proliferation.

NIA is the trade association and information and representative body for the civil nuclear industry in the UK. It represents over 250 companies operating in all aspects of the nuclear fuel cycle, including the current and prospective operators of the nuclear power stations, the international designers and vendors of nuclear power stations, and those engaged in decommissioning, waste management and nuclear liabilities management. Members also include nuclear equipment suppliers, engineering and construction firms, nuclear research organisations, and legal, financial and consultancy companies.

Several of these companies, particularly the generators and those involved in the fuel cycle, will be making their own submissions to this consultation. The purpose of this NIA response therefore is to make some higher level points.

Overview

The NIA welcomes this consultation as an important step forward in developing a strategy for managing our plutonium stockpile. Whilst we believe that current storage arrangements are both safe and secure, we agree it makes sense to develop a longer-term vision. This could be important in terms of the international non-proliferation debate, creating a role model for others to follow.

We agree with the Government's preliminary view that reusing plutonium in the form of MOX fuel offers the best prospect for long term plutonium management. However we agree that further work is required to test the practicality and affordability of this option. Further work is also required on the alternative 'immobilised waste' option.

In this context it is important that further work to develop the reuse option does not in any way undermine progress in taking forward the current UK nuclear new build programme, which will use uranium fuelled reactors. It is vital that progress is maintained if the UK is to meet its security of supply and climate change objectives. Similarly there must be no undermining of the current momentum in implementing a long term solution to UK radioactive waste management and spent fuel.

Consultation Questions

Q1 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. Since fast reactors are unlikely to be deployed commercially for some years it makes no sense to postpone taking decisions on these grounds. As the consultation document recognises, unless the plutonium has been put beyond reach the Government will have the ability to reassess the position. Importantly the adoption of the MOX option would not rule out any future fast reactor programme since, in that event, the necessary plutonium could be recovered from the reprocessing of spent MOX fuel.

Q2 Do you agree that the UK Government has got to the point where a strategic sift of the options can be taken?

Yes. Extensive work has been undertaken on this issue over many years. Last year's NDA Credible Options Paper identified the two high level long term options and the key issues associated with each. Having got to this point it is important that momentum should be maintained, and a strategic sift is a sensible first step. We believe that the direction of travel outlined in the Government's 'preliminary view' is the right one.

Q3 Are the conditions that a preferred option must in due course meet the right ones?

Yes. We agree with Government that the option finally chosen must be safe, secure, affordable, deliverable and offer value for money. We believe that the conditions set out at 5.3 in the consultation document will help achieve this. It is also important to recognise that public confidence will be a key factor.

Q4 Is the UK Government doing the right thing by taking a preliminary policy view and setting out a strategic direction in this area now?

Yes. As we mentioned in our reply to Question 2 there has been extensive work over many years, and the NDA's Credible Options Paper has identified the key issues related to each. In the light of this it makes sense to take a policy view at this point, and to focus necessarily limited resources on the option that currently presents the best prospects for delivering a solution.

Q5 Is there any other evidence Government should consider before coming to a preliminary view?

The NIA is not aware of any other key evidence that the Government should consider at this preliminary stage.

Q6 Has the UK Government selected the right preliminary view?

Yes. As stated above we support the Government's proposed approach. It is clear from overseas experience that in principle MOX fuel can be fabricated and used safely and securely.

However we agree with Government that further work is required to learn more about the requirements of the reuse option, not least its ability to meet the criteria set out in paragraph 5.3. The NIA would be happy to contribute to this process going forward.

As the consultation notes a key issue going forward will be to understand the willingness of new build operators to use MOX fuel in their reactors. Currently prospective new build operators have no plans to use MOX fuel, and this position would probably only change if MOX use was part of a national strategy to reduce the plutonium stockpile that meets all the criteria in paragraph 5.3.

Q7 Are there any other high level options that the Government should consider for long-term management of plutonium?

No. As noted earlier we believe that the Government has correctly identified the two key options for dealing with the UK's plutonium; namely through disposal as an immobilised waste or through reuse as MOX fuel. We are not aware of any other proven or credible options at this stage, and we agree with Government that doing nothing is not a sensible option.

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