

Name: Prof. Roger Barlow

Organisation: ThorEA, the Thorium Energy Amplifier Research Association

Please select the category below which best describes who you are responding on behalf of

- ☐ Business representative organisation/trade body
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- ☐ Local Government
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ThorEA is a not for profit organisation, aimed at developing Thorium as an alternative nuclear fuel, for a safer and more sustainable carbon-free economy. It includes industrialists and academics of many disciplines

Q1 *Do you agree that it is not realistic for the Government to wait until fast breeder reactor technology is commercially available before taking a decision on how to manage plutonium stocks?*

Yes. This may well not come about in the foreseeable future.

Q.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 fact it is overdue.

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

The conditions listed in the report (It must be achievable and deliverable, it must be shown to be capable of meeting health, safety and environmental requirements as well as meeting non-proliferation and security objectives, and it must demonstrate that it provides value for money and is of overall benefit to the UK.) are unobjectionable.

Q.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?*

Yes. In fact it is overdue.

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

It should look at the EU-funded MYRRHA project, which is attacking the problem through use of Accelerator Driven Reactors.

Q.6. *Has the UK Government selected the right preliminary view?*

It is right to reject storage in favour of re-use, but wrong to see MOX as the only re-use option.

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

Yes. It should consider options for reuse by techniques other than conversion to U/Pu MOX. Using Thorium instead of Uranium avoids the tendency of MOX fuel to generate more Plutonium than it consumes. Plutonium in a Thorium reactor (of which there are several proposed systems) will be destroyed more effectively and efficiently than a standard MOX system. The ADSR, with its ability to generate extra neutrons, can also destroy the higher actinides which are problematic for MOX.

It would be prudent to explore such options, while continuing the present system of storage, rather than irrevocably deciding now to adopt MOX as the only incineration method.