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The consultation document sets out the Government's proposed approach to the longer term management of the UK's plutonium stocks for public scrutiny and consultation. Comments on any aspect of this issue are welcome, but the key questions posed in this consultation are:

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?
Response
Yes provided that decision does not prohibit use of Pu in possible future reactor Designs

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

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

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

Q5 Is there any other evidence government should consider in coming to a preliminary view?
Response
Yes. The current document does not consider Pu destruction in the Thorium fuel cycle. The thorium fuel cycle has the following advantages over uranium MOX
1) Destruction is far more efficient. A greater proportion of Pu is destroyed in each fuel cycle.
2) Destruction of a far greater range of isotopic grades of Pu is possible.
3) Virtually complete destruction of the UK Pu stockpile is possible via this route. Hence trivialising future concerns over immobilisation and disposal of Pu.
4) Thorium is more abundant than uranium and does not require the potentially proliferating enrichment processes of current fuel cycles.

Q6 Has the Government selected the right preliminary view?
Response
Partially. The option should not preclude the use of Thorium-Plutonium MOX fuel. It should be noted that any future thorium fuel cycle is not practical without a fissile starter material.
Reactor waste Pu is an ideal fissile starter for this cycle. Once the cycle has begun no further fissile starter is necessary as the cycle breeds its own fissile material.

Subsequent fuel cycles just require the addition of more thorium. The one time use in uranium MOX does degrade the fissile value of the Pu stockpile and helps the proliferation argument. However the immobilisation and disposal choice following use in MOX is not helpful for future fuel cycles.

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

Response

Yes. The option of:

1) In the near future, use Pu in thermal uranium MOX fuels.
2) Recover the considerably degraded Pu content from the waste of these fuels.
3) Use any remaining current Pu plus the recovered and degraded Pu in future thorium MOX fuels.
4) Ensure that investment in the new MOX facility allows the manufacture of both U-Pu and Th-Pu MOX fuels.