

MOX CONSULTATION 4.

Analysis of their depletion has enabled an estimate of the length of time the Thorium fuel rods unearthed at Winfrith actually spent in the prototype reactor they were made to power. The experiment was discontinued very quickly.

When they came to light they had been buried and forgotten for some four decades without detectable hazard- no one still employed at the works knew they were there, nor, when first retrieved from burial, what they were for.

But for civil, fission powered nuclear generation the Thorium cycle offered a distinctly superior technology which was only set aside because the objective of nuclear programmes was plutonium production. Whatever its merits, Thorium was not a means to produce warheads.

Today the US & Russians are seeking to agree terms on which to neutralise unwanted warheads by incorporation of Plutonium into MOX fuel. The US Nuclear Regulatory Commission is considering an application to construct a facility at Savannah River. I am sympathetic to their view that Pu is a dangerous liability which needs to be neutralised by some means. I advocate keeping an open mind as how best this can be achieved.

BNFL's approach by contrast, has been to reiterate the benefits of separating Pu from spent fuel; they have already made the investment in a MOX facility before approval has been secured. They have sought to narrow the terms on which such approval should be considered to avoid the implication that Pu disposal should be undertaken in tandem with the decision to halt its production.

In other words the reference case on which the public are being invited comment reflects only the putative profitability of those contracts which BNFL have contrived to enforce on their clientele which in the first place bind them into paying for spent fuel to be reprocessed and then, bolted on top as it were, oblige them to buy into the Plutonium economy over which BNFL seeks to exercise monopoly.

That is not a sustainable economic strategy. As I outlined above there are alternative means to power reactors for civil use that do not deliver operators into the pocket of what has now become a very large multinational.

Over the course of four public consultation exercises on MOX, the terms of debate have been whittled away down to the point that only those contributions which make the same assumptions as form the premises for the reference case will be deemed valid.

This, not surprisingly, is itself a circular argument: those contracts have been written with the express intention of a profitable outcome for BNFL regardless of the impact on their clientele- therefore, unless the contracts are set aside or the clients wiped out, they will generate a profit for BNFL. QED.

However not even BNFL have the bare-faced arrogance to vite comment on their marketing posture in these terms. Instead we are presented with a carefully elaborated spreadsheet model which gives the appearance that market analyses of Nuclear Fuels are subject to much the same approach

modellers adopt in respect of conventional energy feedstocks.

Now the way to challenge the implicit fallacies of such a model is of course to test it against real life. Models are useful if they show robust consistency with real market conditions under wide fluctuations in value of the parameters the model employs. An ideal opportunity arises to test the rigour of a model when a sudden, step function change takes place to a variable and its effect can be monitored over the period the model predicts such a fluctuation could produce a distortion in the market.

Although they should not be thought to have deliberately arranged for it, BNFL could not have presented themselves with a better opportunity to test their model than the episode they have called the MOX Data Falsification at MOX Demonstration Facility (MDFMDF).

Instantly demand for their product plummeted. Over the subsequent months the company have nurtured its recovery as assiduously as they were able to. And now they are making it clear that if they are not permitted to proceed with the next stage of committed investment, they will lose the opportunity to build a successful market for themselves.

Effectively they have performed the textbook exercise of testing an econometric model, -they must have, because they have continuously monitored the success of measures taken to restore confidence in demand terms throughout the ensuing period.

What they have omitted is to publish these figures, or the results that analysts might use to make an assessment of the rigorousness of their model. So, having shot themselves in the foot with MDFMDF, they are leaving a lethal flaw in their case unless and until they show that the events which flowed from their initial blunder are consistent with the story they would like us to believe about blunder-free market operation.

It is a glaring omission which no serious shareholders would allow on the part of management in any other context. The Government are the majority shareholders and the public are therefore entitled to put forward requests for information the company is using to inform their decisions while refraining from its publication. Indeed, by a finding of the European Commission in 1996 they are bound in law to make available their information about nuclear energy and other such matters of environmental significance whether or not it is requested.

If the model presented in their submission is a useful predictive instrument in formulating energy policy, they have the evidence that would lend it plausibility. If not, they are not using it themselves, and neither should we.

West Cumbria & North Lakes Friends of the Earth

Response to Government Consultation on UK Plutonium Stockpile

Respondent details:

Dr Ruth Balogh

West Cumbria & North Lakes Friends of the Earth

I am willing for my response to be disclosed

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?

I am responding on behalf of our group which is situated in the immediate locality of the Sellafield complex where the stockpile of plutonium is of huge concern, and therefore has a special interest in these matters.

This is a tendentious question that it is very hard to find an answer other than 'yes' to since fast breeder technology has been such a disaster in this country so far and has fared little better elsewhere. I disagree with the condition the question sets in the first place.

However, I do propose that the government calls a halt to this consultation because the disaster at Fukushima has (1) changed the entire basis of the 'plutonium economy' (2) undermined the basis of a justification for a new MOX plant and (3) prompted a review of nuclear safety by the UK Government. This consultation should be informed by the findings of the review.

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

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

No. For any strategic action to be credible, DECC must convince us that it plans to deal more responsibly than its predecessor Defra with the growing amount of reprocessed nuclear waste that we host here in Cumbria. The performance of the existing MOX plant at Sellafield has been absolutely dismal in comparison with the wide-eyed optimism of the 2001 consultation which somehow managed to convince the government that there was a 'robust economic case for proceeding with SMP' 'supported by a number of prudent assumptions' (Defra & DH 2001 p 35). The fact is that the plant was supposed to produce 560 tons of fuel in its first decade but so far has produced just 15 tons (Daily Telegraph, Feb 12th 2011) and the consultation

paper further glosses over these failures as being the result of minor design faults and difficulties. This plant has been costing the taxpayer £90 million a year – a figure that astonishes and angers those of us whose incomes and access to services are being steadily eroded by the government's implementation of cuts to public spending.

In addition, the true 'costs' of MOX in terms of waste need to be appraised. It is frankly incorrect to speak of MOX as a 'recycling' facility when the ensuing spent fuel is even more radioactive and problematic to deal with – creating a further problem of waste. This is an urgent issue here in West Cumbria where we have the only 'communities' in the UK who are willing to consider 'volunteering' to host a Deep Geological Disposal Facility. DECC must put forward a convincing argument that it is not going to be hoodwinked yet again.

Finally, the disaster at Fukushima and the subsequent review of nuclear safety must be taken into account. The disaster involved the proximity of spent MOX fuel in ponds to reactors in melt-down, so the basis of any safety case involving MOX fuel must be called into question. It also means that DECC cannot proceed with the same assumptions about the market for MOX fuel. The Japanese Prime Minister has today proposed the closure of the Hamaoka nuclear plant, apparently the only customer for MOX fuel (Independent 9th May 2011). There may be no market for it and it would therefore remain as a part of the plutonium stockpile – along with the high level wastes that would arise as a consequence of its fabrication. This, again, would have serious consequences for people in West Cumbria.

These points seriously compromise the assumptions that underpin this question.

References

Daily Telegraph Feb 12th 2011 A bomb factory in our back yard Geoffrey Lean p 24

Department for Environment Food & Rural Affairs & Department of Health 2001
Assessment of BNFL's Business case for the Sellafield MOX plant July 2001

Independent May 9th 2011 Closure of Japanese plant casts doubt over viability of Sellafield's Mox operation Steve Connor

Q4 Is the government doing the right thing by taking a preliminary policy view and setting out a strategic direction now?

No. The disaster at Fukushima has prompted a review of nuclear safety in the UK, and this must report before any further consultation is undertaken. The fact that a MOX plant was involved in the disaster makes this all the more compelling. Safety issues both national and international are central to the use of MOX fuel.

Q5 Is there any other evidence government should consider in coming to a preliminary view?

See responses to previous questions

Q6 Has the government selected the right preliminary view?

See responses to previous questions

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

Halting reprocessing at the THORP plant.