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The fast reactor looks an expensive way to cheap power. But has the Government some other purpose, asks Walter Patterson

The Slow Dawn of the Fast Reactor

BRITAIN'S official National Audit Office published a report earlier this year by the Comptroller and Auditor General on *Development of Nuclear Power*. Reading between the well-mannered lines, it was apparent that the comptroller, an independent financial overseer of Government activities, was distinctly unhappy with the UK Atomic Energy Authority, and with its control over the £200-plus million it gets every year from public funds. The AEA's fast breeder reactor programme came in for particular stricture.

The House of Commons Committee on Public Accounts held hearings on the report. Sir Kenneth Couzens, Permanent Under-Secretary of State at the Department of Energy, admitted to the committee that "there is no date for a next stage" of the fast breeder programme, and that "there is a great problem about whether the technology is there yet, can be developed, can be overcome." Sir Peter Hirsch, part time chairman of the AEA, declared that expenditure on the programme to date had been about £2,400 million at 1982-3 prices, and anticipated spending a further £1,300 million before a "commercial" fast breeder power station could be built.

The two officials did not expect "commercial" ordering of fast breeders to begin for more than 30 years - some time after 2015.

Thereafter, Hirsch asserted, the fast breeder would provide "benefits of several billions of pounds" compared to the cost of electricity from conventional reactors - beginning, presumably, some time after 2025, more than 40 years hence, and depending crucially on assumptions about the price of uranium at that time.

This is a remote, desperately speculative and ultimately trivial payoff for such a vast and prolonged effort and outlay. It cannot possibly be advanced as a credible justification for the British Government's stubborn support for the fast breeder, at a rate of more than £100 million per year of taxpayers' money. Another more immediate objective may however be discernible.

Britain's weapons-plutonium production reactors, at Calder Hall and Chapelcross, are more than 25 years old, and nearing the end of their working lives. Nothing has been said officially about replacing them. The British Government is nevertheless committed to a major new programme of nuclear weapons, centred on the Trident system. This programme will require substantial quantities of plutonium of high isotopic quality - such as that found, for instance, in the blanket elements of a fast breeder reactor.

As far back as 1982, the *Guardian* speculated on the possibility that the blanket plutonium from the Prototype Fast Reactor might be being stockpiled for possible weapons-use. In March this year Giles Shaw, Under-Secretary of State for Energy, in a written Parliamentary answer to Gavin Strang, MP, confirmed that none of the blanket elements from the PFR had been reprocessed. Although Shaw did not say so in so many words, this must mean that the blanket elements are indeed being stockpiled, for a future use as yet unspecified.

The Government has asserted repeatedly that it has "no plans" to use plutonium from its civil nuclear programme for weapons. It calls in evidence the fact that the Prototype Fast Reactor is subject to safeguards, according to an agreement between Britain, Euratom and the International Atomic Energy Agency, signed in 1978. Clause 14 of this agreement, however, stipulates that Britain, as a nuclear-weapons state, is entitled to use plutonium from its civil programme for weapons if the Government should so decide. Thus far it may

not have so decided; but should it in the future so decide, the plutonium from the blanket of the Prototype Fast Reactor will be ready and waiting.

Britain, via the Central Electricity Generating Board, is also in a small way a participant in the Super-Phenix fast breeder project in France. French authorities are on record as intending to use the blanket plutonium from Super-Phenix for nuclear weapons for the Force de Frappe.

Like the British Government, the French Government says that Super-Phenix will be under Euratom safeguards. Like the British Government, it fails to acknowledge that the relevant safeguards agreement will undoubtedly contain a let-out clause explicitly permitting France, as a nuclear-weapons state, to use its civil plutonium for weapon, if it so decides.

In this respect France is at least consistent. It has always refused to become a party to the Non-Proliferation Treaty, or accept the treaty's clear-cut provisions for separation of civil nuclear activities from military. Britain, however, is not only a party to the treaty but one of its three original sponsors, with the United States and the Soviet Union. The evident ambivalence of Britain's ostensibly "civil" plutonium programme, both domestic and international in cooperation with France, will drive yet more nails into the coffin of the "peaceful atom". It must, in particular, present a further obstruction in the path to the five-yearly review conference on the treaty, due to take place in Geneva in September 1985.

The last review conference, in 1980, broke up in disarray, without even achieving agreement on a final statement. The prospects for the forthcoming review are already unpromising.

The treaty is a flawed and fragile document; but it is the only one we have. Its collapse would trigger a global nuclear free-for-all. If Britain, as one of its three depositary countries, persists in a plutonium programme that blurs yet further the ostensible boundary between civil and military nuclear activities, it is difficult to see why any other countries should accede to the treaty, or even remain party to it.

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