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Windscale to be world capital for radioactive waste?

British Nuclear Fuels Ltd, launched commercially in 1971 with a mighty boost from public funds, are embarking on a major expansion programme. One of their objectives is to make Britain the radioactive waste management centre for the world.

The Atomic Energy Act 1971 split up the United Kingdom Atomic Energy Authority, and gave to the new BNFL the nuclear installations at Windscale, Calder Hall, Chapelcross, Capenhurst and Springfields - plants built largely for the manufacture of nuclear weapons, but more recently involved in supplying and servicing civil nuclear power.

Calder Hall and Chapelcross are themselves nuclear power stations, each with four small reactors. Springfields is a uranium factory, now manufacturing fuel for power reactors. Capenhurst is an 'enrichment' plant, to extract the rare form of uranium which will sustain a chain reaction. Windscale facilities include a plant for processing used reactor fuel to recover uranium and plutonium, storage tanks for the ferociously radioactive waste remaining, and a plant for manufacturing plutonium reactor fuel. All five installations are vast.

BNFL, as a commercial venture, publishes accounts each year. A note in the Annual Report for 1973-1974 gives an unexpected insight into the status of the commercial venture. It reads: 'Assets originally provided for Defence purposes, and which the Company may in certain circumstances be required to use for such purposes, had no value attributed to them on their transfer to the Company.'

All the five installations above-mentioned come into this category. The 1973-74 BNFL accounts value the company's fixed assets at £26.6 million. The 1974 profit is given as £10.3 million, a performance that would be laudable, were not the figures meaningless.

BNFL is a one-third partner in international consortia URENCO and CENTEC, developing a new approach to uranium enrichment, which is as hush-hush for commercial reasons as its precursor was for military reasons. BNFL is also a partner in United Reprocessors, another international consortium, for processing used reactor fuel and managing the leftovers.

BNFL imports used fuel from other countries to be processed at Windscale. A contamination accident in September 1973 put the 'head-end' plant at Windscale out of action. But when the new 'head-end' comes into service, perhaps by the end of 1975, Windscale will be one of only two or three commercial reprocessing plants in the world.

For the foreseeable future all the radioactive waste from imported used fuel will be stored at Windscale, making it one of the world's main radioactive dustbins.

In due course BNFL propose to solidify the waste and return it to the country of origin. But in early 1975 the government, noting BNFL's status as a commercial undertaking, refused to pay for the development of the solidification process, suggesting that BNFL fund the process from its own income.

In late 1974 BNFL announced plans for expansion involving an investment of £500 million. It is not clear where the £500 million will come from. But since it will be used to update or replace many of the 'fixed assets originally provided for Defence purposes', it will help to bring the true costs of servicing nuclear power stations out from behind a twenty-year veil of ambiguity, into the light of commercial reality. Electricity users may not of course appreciate the view.

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