

BNFL's MOX fiasco

MOX fuel is a mixture of reprocessed plutonium and uranium and is intended to be used in conventional nuclear reactors as a way of burning up the plutonium. This plutonium was originally meant for use in 'fast breeder' nuclear reactors. However, this plan failed for technical and safety reasons. In spite of this failure, a growing stockpile of weapons useable reprocessed plutonium is still being built up at Sellafield, with no realistic prospect of any future use. BNFL operates a small-scale MOX demonstration facility (MDF), and has already built a full-scale plant, which is awaiting Government approval to start up. In the meantime, BNFL continues adding to its plutonium stockpile by continuing reprocessing nuclear waste fuel.

BNFL's first commercial shipment of MOX fuel left Cumbria in July 1999 bound for Japan. The fuel was intended to be loaded into the Takahama-4 reactor owned by the Kansai Electric Power Company in Japan. The fuel's manufacture and shipment was a test-case for BNFL's future MOX business.

Before the ship arrived, the Independent newspaper revealed that safety checks on MOX fuel rods had been falsified (Independent, 14 September 1999). Initially, BNFL claimed that the false data did not affect the fuel on its way to Japan.

However, it emerged in December that the Nuclear Installations Inspectorate had confirmed to the Japanese Embassy in London that the consignment delivered to the Kansai Electric Power Company did indeed include fuel rods whose data had been falsified.

Kansai Electric confirmed that it would not load the fuel into its reactors and called for the fuel to be returned to the UK.

Helen Liddell, the Government minister responsible for BNFL, was forced to apologise to the Japanese ambassador in London. In addition a senior civil servant in the Department of Trade and Industry, together with representatives of the Nuclear Installations Inspectorate, were sent to Tokyo to reassure Kansai and the Japanese Government that everything was being done to ensure that British MOX was made to the correct standards.

The result of these efforts was that the Japanese Government joined Kansai Electric in demanding that the fuel be returned to the UK.

Japanese nuclear generators have now been ordered to suspend their plutonium trade with BNFL indefinitely.

The implications of this fiasco are huge for BNFL. The company needs Japanese orders to justify opening its new £300m MOX plant at Sellafield, which is currently waiting for Government consent to open. Without new orders, the plant's operation could never be justified. Without any use for BNFL's main product – reprocessing - the pointless and deadly nature of continuing reprocessing would also be highlighted.

In addition, the UK Government is considering a partial privatisation of BNFL. With relations with its biggest overseas customers at an all time low, and the credibility of BNFL's safety record once again in question, it appears unlikely that the Government would find it easy to promote the company to potential investors.