

Fast reactors

Britain falling behind?

BRITAIN'S nuclear engineers were making a strong plea last week for a British commitment to the development of fast reactors — little over a year after the government announced there was no need for haste. Nothing has changed, of course, in the engineers' perception of need: they say Britain needs the reactor as part of an arsenal of energy sources for the next century. What has changed, however, is the engineers' perception of politics. Since January, Britain has been signatory to a five-nation European umbrella agreement on fast reactor research and development, and there are growing fears that Britain will become second fiddle to France.

The plea last week came from Dr Tom Marsham of the United Kingdom Atomic Energy Authority (UKAEA), at a dinner for members of the British Nuclear Energy Society and British Nuclear Forum, that "we need to follow present plans enthusiastically and avoid further delay".

Whispers at the tables, however, indicated that the future may be with TOR, a new fast-fuel reprocessing plant under construction at Marcoule in France. Until TOR, Britain was generally thought to have the lead in efficient fast-fuel cycle management with a plant at Dounreay.

The preference for TOR gains significance in the context of an emerging consensus that Europe should develop just one major fast-fuel reprocessing plant to cope with all the fuel from the three commercial demonstration fast reactors (CDFRs) that are ultimately expected to be built in Europe (in France, West Germany and the United Kingdom). Since it is expected that Britain will have the last of the three CDFRs, it would be convenient, at least to British nuclear engineers if Britain were to win the reprocessing plant. If nothing else, it would help UKAEA to attract the engineers it needs.

Meanwhile, however, all is not going entirely smoothly on the European mainland. Electricité de France is not happy with the £2,000 million costs of Superphenix, the 1200 MW French CDFR due to start producing electricity at the end of next year, and sees no immediate prospect of further investment in that area.

And in West Germany, the increasing political power of the Greens, the environmental grouping which has now allied with the Social Democratic Party, may prevent any further fast reactor developments (such as the proposed CDFR, SNR 2).

Robert Walgate

Space station

Budget cuts spell delay

Washington

SPENDING cuts proposed by President Reagan in his effort to limit the federal budget deficit without increasing taxes are likely to delay completion of the space station now under development by the National Aeronautics and Space Administration (NASA). NASA services are among the targets listed in a budget plan presented to the cabinet last week, and NASA officials hold out little hope that the agency can escape unscathed at a time when, for example, one cost-reduction measure under consideration is a 5 per cent pay cut for all civilian employees of the federal government — which would, incidentally, also include NASA scientists.

Last year, NASA was told to expect 1 per cent real growth per year between 1986 and 1989 in order to allow development of the space station. Although NASA has traditionally been relatively immune from budget restrictions, the scale of the savings now being sought — \$34,000 million in fiscal year 1986 — means that few agencies can be permitted unnecessary increases. A decision to abandon the 1 per cent annual growth target would leave NASA administrator James Beggs with some hard decisions.

Although President Reagan is publicly committed to the space station project, the project is still in a very early stage of

development and could be postponed without incurring huge additional costs. A recent unfavourable report on the space station from Congress's Office of Technology Assessment might increase pressure for the project to be put back. One difficulty, however, is that when the President announced his plan for a permanent manned space station, in January 1984, he directed NASA to complete development "within a decade". A decision to abandon that target would therefore have to be approved by the President. Initial development costs for the space station — without instrumentation — are put at \$8,000 million.

Other contenders for programme delays are scientific projects for which funds have not yet been approved. Possibilities include TOPEX (Topographic Experiment), an ocean surveying satellite, and the advanced X-ray astrophysics facility planned for the 1990s. The Mars geoscience/climatology orbiter has also been suggested.

The Hubble space telescope, now nearing completion in time for a 1986 launch, is unlikely to be affected by any budget reductions, say NASA officials. Although the project has been subject to many delays due to technical difficulties and budget stringencies, there are now no outstanding obstacles.

Tim Beardsley

Nature Conservancy

Chief geologist resigns

THE British Nature Conservancy Council (NCC) was both criticized and rewarded last week. Dr George Black, NCC's chief geologist for the past 24 years, resigned because he considered recent developments in NCC policy alarming in their "uncompromising militancy". The government, however, has made it clear that it will support a private member's bill, tabled by David Clare, the opposition spokesman on the environment. The bill seeks to arm NCC against landowners who exploit of an anomaly in the Wildlife and Countryside Act of 1981 and destroy their land during the three months before its registration as a special, protected site. If the bill becomes law NCC will be further empowered to block any work on a prospective site that might be harmful.

In accordance with the terms of the Wildlife and Countryside Act, NCC is resurveying the 4,000 Sites of Special Scientific Interest (SSSIs) and "renotifying" owners and users of their obligations under the act, a costly and labour-intensive process. Earlier this year it was claimed that NCC has neither the money nor the manpower to carry out these duties but an increase of 50 per cent in its grant-in-aid budget of £7 million has recently been announced.

Dr Black's resignation, however, has been induced by the council's declared intentions on the selection of additional sites, and its strategy for the future, as published in *Nature Conservation in Great Britain* last June. Dr Black regards conservation as an applied science. "Previously, NCC saw its role as the government's scientific adviser on the natural environment. The report is beginning to introduce other concepts, such as conservation as a cultural matter." According to Dr Black, this marks a departure from its long-established tradition. In a farewell letter to his staff, Dr Black explained that differences grew out of NCC's commitment to the conservation of "a flood of scientifically sub-standard SSSIs for cultural, recreational, inspirational and spiritual reasons". Despite his anxiety to correct press reports that have presented the disagreement rather melodramatically, in terms of feuds and bad blood, Dr Black is resolute. "I've come to the conclusion, as a scientist, that I want to work for a purely scientific organization."

As far as departures from tradition go, some council members feel that NCC's earlier practices were ineffective and in need of change. In the past few years, NCC has been moving not towards confrontation and *diktat*, but very approximately into line with the opinions of the general public who finance it.

Hugh Barnes