excluded, and a compensation payment under the new procedure does not constitute an admission of liability by BNFL.

BNFL is to examine radiation dosage records of its employees at Sellafield (formerly Windscale) and its other plants, and will include employees of its predecessors in the field, the Atomic Energy Authority and the Ministry of Supply, going back to 1950. A BNFL spokesman, while emphasizing the company's continuing efforts to minimize radiation exposure among its employees, estimated that between 10 and 40 additional pay-

ments are expected immediately under the new scheme.

In difficult cases an independent panel of experts, jointly appointed by BNFL and the unions and under the chairmanship of Lord Gregson, will decide the level of compensation. The agreement is provisionally scheduled to last for two years and will be extended if it proves successful. It is also hoped that it might be possible to extend the scheme to cover cases in which radioactive material has been ingested (more difficult to assess for technical reasons) and cases of disablement. **Tim Beardsley**

EEC research council

British block safety reactor

Brussels

An otherwise successful meeting of the EEC's research ministers in Brussels last week was marred by some tough British objections to the new budget put forward by the Commission for the Super-Sara project. The project, which aims to explore ways of managing crises in light water reactors when loss of coolant takes place, is included in the new four-year (1982-86) programme for the EEC's joint research centres (JRC). Super-Sara will absorb a considerable part of JRC's budget at a time when efforts are being made to restructure its work so that it is more in line with other research and development aims of the Community.

Super-Sara was first proposed after the Three Mile Island accident and when the Italians wished to find a use for the Essor experimental reactor which was no longer being used at the Ispra Research Centre. Since then the enthusiasm of the rest of the member states, never very strong, has waned considerably as the original cost estimates have been continually revised upwards. British officials were predicting before Thursday's council that the project could be scrapped and even now its future is by no means certain.

A decision will have to be taken by Coreper, the committee of the member states' ambassadors, within the next two weeks before the revision of the 1982 budget is completed. Mr David Mellors, British Under-Secretary of State for the Department of Energy, has now asked the European Commission to present further details on how the increased project costs can be accommodated and has questioned whether the project, which he thought had been badly managed until now, could still be considered cost-effective.

Mellors said that the results that the project would yield could not be considered essential since it investigated only an extremely unlikely type of malfunction. The Commission has, however, received support from a task force of experts whose report concluded that the project was worthwhile and fitted into the matrix of research being carried out elsewhere. And even the United States has until now shown

interest in contributing to the cost of the project. British opposition might be rooted in national interests because, having chosen to build pressurized water reactors, the United Kingdom will be only marginally interested in the results of the project.

Considerable confusion however, surrounds the various estimates of Super-Sara's cost. An early estimate of 139.53 million European currency units to cover the project until 1988 has been constantly revised, standing now at 293.9 million units (£161.7 million).

European Commissioner Viscount Etienne Davignon told the ministers that 10 million ECU and 17.5 million ECU urgently needed to be taken from the 1982 revised and 1983 budgets respectively, plus a further 15 million ECU each for 1984, 1985 and 1986, if the project was to continue at all. He also pointed out that more delays will increase the cost of the project still further and that the cost of closing down the Essor reactor would not be cheap either.

Part of the explanation for the dramatic rise in cost estimates lies with the nature of the revision of JRC's programmes. Next year will be a special bridging year between the last programme (1980-83) and the 1984-87 programme. More staff are being recruited and 161 new posts are being created, 81 of them for the Super-Sara project, although the Commission claims that this is a temporary expansion to cope with the expected retirement of senior scientists. It now seems likely that instead of new staff being engaged there will have to be redeployment of staff among JRCs and national laboratories or certain other projects or plans will have to be curtailed such as the increase in JRC research asked for in nuclear energy. Except for the possibility of the number of experiments being reduced, there appears to be very little room for compromise over Super-Sara itself, and the British are worried about putting too many eggs in one basket. Even under present calculations, the fast breeder safety and the fuel cycle safety programmes are being cut back.

Jasper Becker

Thermonuclear fusion

Padua approved

Brussels

It is now virtually certain that the reversed field experiment (RFX) which was originally to be funded by the UK Atomic Energy Authority at the fusion research centre at Culham, will be taken on by the Italian Comitato Nazionale Delle Ricerche and built at its laboratories in Padua. The consultative committee of the fusion programme was given the go-ahead to both this project and the construction of the Wendelstein VII advanced stellarator project, to be built at the Garching Laboratory of the Institut für Plasmaphysik in Germany.

Researchers were disappointed last year when the British government decided that there was no room in Culham's budget for the British contribution to the experiment of 16.5 million European currency units (ECU, 1 ECU = 55p). RFX is a direct descendant of ZETA — the zero energy thermonuclear apparatus — which hit the headlines in the late 1950s when it failed to achieve fusion for reasons which were not understood for some years. G.B. Taylor in the next decade proposed the reverse field theory to explain the failure and it was hoped that Britain could continue to lead the world in this field.

Reversed field pinch is one of the three options for achieving fusion which are being pursued in Europe under the Community's research programme. The experiment which will now be started in Padua will involve the construction of a 2,000 kA machine which will enable the experimenters to achieve a longer plasma confinement time. Padua had in 1978 been successful with a much smaller machine, known as ETA-BETA, capable of producing plasma currents up to 250 kA.

The project will still involve staff from Culham but the Italians will be providing the bulk of the cost of the experiment, some 15.7 million ECU, which will start next year and cover about four and a half years. The Community's budget will meet the rest of the cost, totalling 28.5 million ECU although this may rise, depending on whether the US Department of Energy is still willing to contribute to the cost of the project.

Officials in Brussels are, however, confident that the project may now go ahead without further setbacks. In fact, there may be advantages in siting the experiment in Padua where it will not have to play second string to the JET tokamak.

The Wendelstein VII advanced stellarator project will be the first stellarator to use modular twisted coils instead of helical windings to create the poloidal half of the magnetic field that heats and compresses the plasma. The stellarator will cost 12 million ECU to build and the Community will be contributing 5.4 million ECU.

Jasper Becker