

which had previously been endorsed by the committee, particularly because of problems with leakage in the existing British fast reactor steam generator components. Mr Wydler also said, however, that UK Atomic Energy Authority officials felt that cooperative agreements with the United States presented unique difficulties because of the Freedom of Information Act and the Atomic Energy Act requiring the disclosure of proprietary business information.

In contrast with his defeat in the fast breeder debate, Mr Stockman seems to have won on the other point of dispute with nuclear advocates in the Department of Energy, namely renewed federal support for spent fuel reprocessing from commercial reactors. The nuclear industry has been pushing for the reopening of the Barnwell reprocessing plant in South Carolina, which was denied funds by the Carter Administration; no money for commercial reprocessing is, however, included in the budget request, although there are funds for the West Valley Demonstration Project.

Backing up its general stance in favour of reprocessing, however, the Reagan Administration has decided to discontinue the spent-fuel programme intended to provide storage facilities away from power station sites. This programme is being refocused within the Department of Energy to concentrate on the development of alternative spent-fuel storage technologies which can be used by utilities at existing reactor sites.

Although the Administration has set its face against subsidies for commercial reprocessing, it has in the past few days become known that plans to dismantle at least this aspect of the Carter anti-proliferation policy are being worked out.

David Dickson

German big science

Win some, lose some

Germany should spend an extra DM 800 million (£170 million) on big science projects over the next ten years, recommends the committee set up a year ago by the previous minister of science, Volker Hauff — and another DM 425 million of projects should be accounted for under the current budget.

The "big science" committee, chaired by Professor Klaus Pinkau (who was recently appointed director of the Max Planck Institut für Plasmaphysik at Garching) reported last week to Minister Andreas von Bülow on a shopping list of ten major projects (*Nature* 3 July 1980, p.8) ranging from high-energy physics to geology, which, if they were all undertaken now, would have cost Germany at least DM 2,015 million (430 million). On being given the task, Pinkau said it would be a "work of art" to steer the right course between scientific worthiness and the government's

ability to pay — for the committee was given no financial guidelines. In the interim, the German economy has weakened, and the Pinkau committee felt obliged to take cost strongly into account.

However, some sleight of hand reduces the bill. The committee recommends that Germany support LEP, the large electron-positron collider which physicists would like to see as the next major facility at CERN, the European subnuclear physics laboratory in Geneva. LEP will cost Germany DM 350 million; but as it is likely to be built within CERN's current budget and staff, the committee reckons it will mean no extra expenditure. Similarly, a DM 75 million replacement for Meteor, Germany's principal and ageing oceanographic research vessel, can be paid for within the current geosciences budget.

Of the other projects, the committee says the refitting and expansion of the BER II research reactor at the Hahn-Meitner Institut, Berlin, costing DM 47 million, should be undertaken immediately"; so should the construction of the DM 33 million SUSE, a 250 MeV superconducting cyclotron for heavy ion physics proposed by the Technical University of Munich — provided the university can raise part-finance from the regional government of Bavaria, and make the accelerator a national facility. An equivalent facility proposed by the Jülich nuclear laboratory near Cologne was rejected (it cost more).

The committee puts some of the most expensive projects on ice. HERA, a high energy proton-electron collider for the DESY subnuclear physics laboratory at Hamburg which would cost DM 600 million (in two parts) is recommended "in principle", but a decision should await developments in superconducting technology; and the question of a relativistic heavy ion accelerator for GSI Darmstadt (DM 190 million) is to "remain open".

The latter raises an interesting question in physics: will relativistic heavy ion collisions lead to entirely new states of nuclear matter (as in neutron stars) as some nuclear physicists predict, or will it just lead to a mass of high energy but otherwise familiar fragments? The feeling in Germany is that some low cost test of this question should be made first, for example, by feeding heavy ions into the intersecting storage rings at CERN. But if such experiments were done, German thinking goes, it should be *outside* CERN's budget or there will be no money for LEP.

On this issue, on HERA, and on others such as the proposed spallation neutron source (where Jülich and Karlsruhe have competing proposals) and the deep drilling programme of the Deutsches Forschungsgemeinschaft, Germany will also be looking for increased international collaboration. The European synchrotron radiation source, however, proposed by the European Science Foundation, is said to be "not of high priority". **Robert Walgate**

Madrid conference

Detente denied

Western leaders have failed to react "realistically" to Mr Brezhnev's latest proposals for detente, a *Pravda* editorial complained last week. The proposals, put forward at the party congress last month, covered three main issues: the extension of "confidence building measures" (CBMs) to all Soviet territory west of the Urals, and the possibility of introducing similar measures in the Far East, special negotiations on the Persian Gulf and Afghanistan, and a moratorium on medium-range nuclear weapons in Europe.

The party congress coincided with the closing weeks of the Madrid review conference on implementation of the Helsinki Final Act. CBMs, as specified in the Final Act, cover notification of major military manoeuvres (more than 25,000 troops), exchange of observers for manoeuvres and also notification of major troop movements, though this last clause is left to the discretion of the participating states. Notification of manoeuvres, moreover, in the case of a participating state whose territory extends beyond Europe, is mandatory only for an area within 250 km of its European frontier. The suggestions that the Helsinki clauses on CBMs should extend as far as the Urals, came, initially, from the French delegates to Madrid, and were not greeted with enthusiasm by the Soviet delegation, until, on 23 February, Mr Brezhnev made them his own. Not surprisingly, Mr Brezhnev suggested some kind of reciprocity from the West. Since the whole of Europe falls within the CBM zone, this would presumably have to be of a qualitative nature, such as the discretionary notification of smaller-scale troop movements, or, judging from hints in the Soviet media, curtailing "provocative" broadcasts to the Soviet bloc.

Afghanistan, too, was an issue which the Soviet delegation at Madrid at first tried to block as "irrelevant" (because the Helsinki Final Act referred to security and cooperation in Europe). Mr Brezhnev's call for a moratorium on nuclear arms seems to reiterate the Polish proposal at Madrid for a European disarmament conference in autumn 1981. Unfortunately, none of Mr Brezhnev's peace proposals touched on the sensitive issue of declaration and verification of troop and armaments strength — the point on which all similar negotiations have broken down for the past 35 years. His suggestion of an "authoritative international committee" whose members "might include the most prominent scientists" of the countries concerned, which would "demonstrate the vital necessity of averting a nuclear catastrophe" has, however, been passed on to the international Pugwash council as a matter of urgency.

On the other aspects of detente, the