Panel endorses price rise

Washington

A PANEL of eminent physicists, assembled by the Department of Energy (DoE) to defend its Superconducting Super Collider (SSC) from cutbacks, weighed in last week with a strongly worded opinion that the accelerator should be built despite cost overruns that could reach nearly \$2,000 million.

Although the panel's conclusions come as little surprise (see *Nature* 343, 103, 1990), DoE officials have indicated that they believe such an endorsement from an influential advisory body (including five Nobel laureates) is necessary ammunition for the approaching congressional battle over the 1991 budget. Congressional critics have been saying that cost overruns are likely ever since the project began four years ago.

The panel was unequivocal in its support of the machine at its full design energy of 20 TeV. Lowering the beam energy to 17 TeV would "yield an insufficient cost reduction to justify the reduction in physics", the panel's draft report says. Below 15 TeV, the SSC would "unacceptably . . . risk missing important new physics". "The only way to keep the cost of the SSC at \$5.9 billion [DoE's original cost estimate] would be to seriously reduce its capabilities", the report continues. Asked to look for features that

could be initially removed for substantial savings, but could then be restored later, the panel said that it found none. One reason for not cutting the SSC's energy is that one quickly reaches a point of diminishing returns, Columbia University Nobel prizewinner T. D. Lee told DoE's High Energy Physics Advisory Panel (HEPAP). He explained that when looking for particles such as the Higgs boson, the desired 'foreground' signal roughly doubles in strength between 15 TeV and 20 TeV, while the background noise increases only linearly. Although there would be some cost savings by shaving the SSC's energy, the chance of exploring new physics would decline precipitously, he said.

Senator Phil Gramm (Republican, Texas), an SSC supporter in whose state the accelerator would be built, warned HEPAP panel members that the project was facing resistance in Congress, and that austerity would be necessary. "We are in a position of trying to compete for resources with other projects that have large constituencies", he said. "It is important that we end up not with a Cadillac, but a sturdy Chevrolet." Although he emphasized that he could not predict how far the SSC's cost could escalate before it reached its "political threshold", he said he could "try to get Congress over the sticker shock".

G. Christopher Anderson

FRENCH UNIVERSITIES

More for crowd control

Paris

FRENCH education minister Lionel Jospin has managed to secure an extra FF500 million (about \$80 million) from the government to offset overcrowding likely to provide a chaotic start to the new academic year. Next September, an extra 40,000 candidates are expected, all of whom have the right to a university place, having passed their *baccalauréat*. But, in Paris at least, most campuses are already severely overcrowded and building work under way will not solve the shortage of space in time.

The 1990 higher education budget, voted through parliament only a few weeks before Christmas, was already up by 9.5 per cent over 1989. But by the end of the year, it was clear that the FF27,500 million would not be enough. If the universities are already overcrowded, an estimated 200,000 square metres of teaching space needs to be found for the extra intake. Following a cabinet meeting on 10 January, it now seems certain that Jospin will receive the extra money he needs. Most of the new supplement will be used to rent space in addition to new buildings already under construction and due to open in the

autumn. A further 400 posts of lecturer will be created to cope with the new intake, and researchers will be paid to take on some lectures.

The extra money will relieve some of the stress in France's 71 universities and 66 technical universities. But additional libraries, restaurants and student accommodation are also required. Plans are under way to build five new campuses and to modernize what some claim is Europe's oldest university, the Paris Sorbonne. But this will take time.

In order to speed up the process, the government is considering incentives to regional and local governments willing to share the financial load. As universities can bring economic returns in the form of local investment — particularly when science and technology skills are available — many regions may be keen to accept. This is particularly likely for the depressed Nord region where one new campus is planned. A former mining area, the region is just at the entrance to the Channel tunnel, scheduled to open in the mid-1990s and a good site for a new European campus to rival Grenoble and Strasbourg.

Peter Coles

Weapons clean up

Boston

THE US Department of Energy announced last week that for the first time ever it would undertake sweeping environmental studies of its nuclear weapons production facilities. One of the 'programmatic environmental impact statements' will cover the department's plans to conduct a massive clean up of its existing facilities; another will review the agency's options in its efforts to modernize nuclear weapons production facilities.

The Energy Department's announcement came in the face of a lawsuit brought by eighteen environmental groups including the Natural Resources Defence Council. Although the Energy Department included no timetable or budget for the environmental reviews, it nonetheless marks a major step in opening up to greater public debate the potential environmental and health dangers from nuclear weapons production. S.S.

Out damned SPOT

Paris

A LAST-MINUTE failure in one of the tape recorders on board the French Spot-2 commercial Earth observation satellite has set the launch back by several weeks. According to a French national space research centre (CNES) communiqué, the recorder did not rewind under remote control during a final check while the satellite was already aboard its Ariane launcher on the pad at Kourou, French Guyana.

The tape recorder is one of the two on board that temporarily store images while the satellite is out of range of ground receiving stations. Two similar tape recorders from the same manufacturer, the US company Odetics, were installed on Spot-1. One of these stopped working soon after the satellite was put into orbit, leaving a few permanent blind spots. But the surviving recorder has continued to function for the past four years — twice as long as planned.

Spot-2 has now been removed from the rocket's payload area so that the faulty component can be replaced — an operation which could take more than two weeks. P.C.

Benveniste all-clear

Paris

DR Jacques Benveniste, whose controversial work on the biological activity of high-dilution solutions earned him a reprimand from the French medical and health research institute (INSERM) where he works, will be allowed to continue as head of his laboratory until 1992, when his present contract expires. When Benveniste's research was examined in a routine review last year, Philippe Lazar, INSERM's director general, made the continuation of Benveniste's post contingent on 'good behaviour' — which meant keeping out of the press. P.C.