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operating officers of companies, but we have to find where to draw the line beyond that." (Walter Gilbert, of Biogen, has announced that he will resign from Harvard as of 1 July rather than relinquish his position in the company he helped found.)

Resolution of the conflict-of-interest issue was left to individual universities, each to handle according to its "special circumstances and traditions."

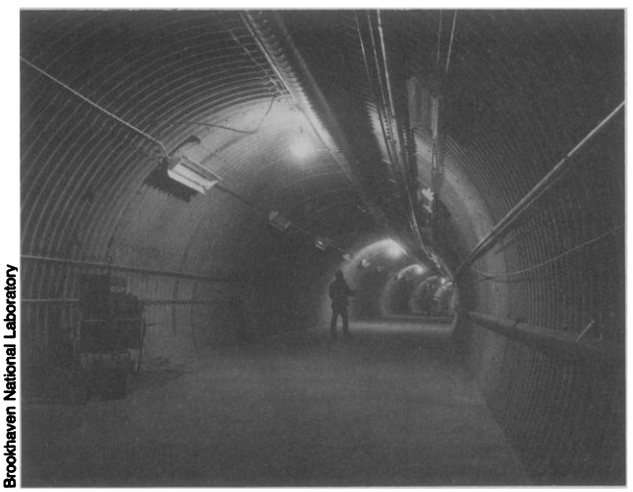
In handing resolution of the issues back to university faculties, the Pajaro Dunes conferees exhort them to continue a deliberative process that is already under way. The Pajaro Dunes statement, in effect, simply codifies the questions. With the imprimatur of the five presidents, it achieves a visibility it might not otherwise have. Its overriding message is that there is, as yet, no certainty about how far to go in writing rules and no presumption that they need to be the same for every campus. Pluralism and a certain measure of confusion prevail.

—BARBARA J. CULLITON

A Requiem for Isabelle

A panel of top U.S. physicists has taken note of the budgetary winds and concluded that the half-built Isabelle accelerator at the Brookhaven National Laboratory on Long Island may have to be abandoned.

The $500 million project, begun in 1978, has fallen some 2 years behind schedule and nearly doubled in price because of inflation and problems with the design of its superconducting magnets. Construction and research to date have cost $160 million.



Brookhaven National Laboratory

A light at the end of Isabelle's tunnel?

A lobbying effort may be the only hope for completion of $500-million project.

The technical problems that initially plagued the project have been solved in the past few months. A new magnet design, adopted in the fall of 1981, has so far resulted in six full-sized prototype magnets that meet or exceed the needs of the accelerator.

The current difficulties stem from a shortage of cash. The Reagan Administration proposed a fiscal year (FY) 1983 high energy physics budget of $429 million, whereas the High Energy Physics Advisory Panel (HEPAP), a group of elder statesmen who advise the government, says $440 is needed to support the U.S. program and continue work on Isabelle. A key objective of the Administration's FY 1983 budget is to increase utilization of existing accelerators from the current level of 35 percent up to 60 or 70 percent. To achieve this and other objectives, a budget increase of $65 million has been proposed. Nevertheless, no construction funds have been set aside for Isabelle. These developments, according to HEPAP chairman Sidney D. Drell, while not absolutely dictating the ditching of Isabelle could mean "this construction project cannot continue." *

The gloomy prognostication came in a final HEPAP report on the future of the U.S. high energy physics program. It is an updated and expanded version of an earlier paper (*Science*, 13 November 1981, p. 769). A key difference is that HEPAP has now had a chance to examine the Administration's budget proposal.

Isabelle was meant to be the cadillac of the next generation of U.S. atom smashers. Its 2-mile-long circular array of superconducting magnets would have guided beams of counterrotating protons to nearly the speed of light and then smashed them together, breaking the protons into their constituent parts.

Despite the financial uncertainty surrounding the machine, work on Isabelle speeds ahead with what remains of the $15 million in construction funds that Congress dished out in FY 1982. Although the finishing touches were put on a 2-mile-long circular tunnel in the spring of 1981, concrete is still being poured for huge experiment halls. The work, according to a spokesman at Brookhaven, "will not grind to a halt" on 1 October because contracts let during FY 1982 will still be honored during the next fiscal year. In addition, Brookhaven officials still hold out the hope that a line item for construction might still be added to the FY 1983 budget. The lobbying effort centers around Representative William Carney (R–N.Y.), in whose district Isabelle resides and who is on the House Committee on Science and Technology. A concerted lobbying effort by the New York congressional delegation might yet save Isabelle, one of Long Island's biggest construction projects. However, a last-minute rescue is perhaps unlikely given the current squeeze on the federal budget.

If Isabelle is abandoned, the question that high energy physicists must ponder is what becomes of the vacant multimillion-dollar tunnel out on Long Island. A crash program for the development of superconducting magnets is still under way at Brookhaven, and speculation now centers on what might be the configuration of an Isabelle II. One possibility mentioned in the HEPAP report is an electron-proton collider or a less expensive proton-proton collider. The cost might reach $250 to $300 million, according to the report. If the cost were to go higher, "completion [of the machine] would be delayed well into the 1990's."

—WILLIAM J. BROAD

*Drell's comments are contained in a cover letter to "Report of the subpanel on long range planning for the U.S. high energy physics program of the high energy physics advisory panel" (U.S. Department of Energy, Division of High Energy Physics, March 1982).

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