antitrust laws—a total of $150 million.

Chemical Abstracts is expected to respond in legal filings later this month that it satisfied all the terms of its 25-year-old NSF contract long ago and it has been self-supporting ever since. "No public money is involved," declared Crum in the 29 June press release.

And there the situation stands: a stalemate. However, there is one side to be heard from in this dispute—the database users. They will have their first chance to speak up later this month when the ACS Committee on Chemical Abstracts convenes in Washington, D.C., at the society's semiannual national meeting. The occasion could be a noisy one. It turns out that many chemical information specialists are basically on Dialog's side.

"A number of us have been trying to reason with Chemical Abstracts for some time to liberalize access" to their databases by making them available through other vendors, says organic chemist Ronald Doeltzen, an information specialist at 3M. "So personally, as a member of ACS, I'm really going to be upset if my dues money goes to pay a bunch of defense lawyers."

For a database user, Doeltzen explains, it's a pain to have crucial chemical information isolated in STN away from all other non-ACS data. Suppose you do a search through the abstracts, for example, and you find that a lot of the entries you retrieve have references to U.S. patent numbers. You want to know more about those patents. In Dialog, he says, you could port those references into a patent database and pull up a new set of bibliographies and abstracts automatically. But in STN you're stuck, because STN doesn't have those patent data.

"The ACS has been using Chemical Abstracts as a cash cow for years," says Doeltzen, "so Chemical Abstracts has begun to make decisions based on the best cash-generating policies, not the best information dissemination policies for chemists and society as a whole." The irony, he says, is that this effort to control the information flow may actually be self-defeating: If more online services offer access to Chemical Abstracts databases, then more people will search them and Chemical Abstracts will make more money.

"In my opinion there's no evidence for that assertion," says board chairman Dixon. And in any case, ACS can't afford to take risks. "I consider the Chemical Abstracts databases a legacy that ACS must protect," he says. "It's almost a holy mission—but it costs a hell of a lot."

Both sides have plenty of time to reflect on the issues: it will be at least 2 years before the suit can possibly get on the court docket.

■ **M. Mitchell Waldrop**

SSC Cost Estimates Climb

The cost of building the Superconducting Super Collider could climb as high as $8.9 billion—more than double the original cost estimate—a Department of Energy advisory committee warned last week.

When the project was first proposed in 1987, DOE officials assured reporters that the machine could be built for $4.4 billion. By late 1988 the cost had escalated to $5.9 billion. And early this year, the department acknowledged that it had climbed to about $7.5 billion, largely because changes had to be made to the original design in order to ensure that the accelerator would perform as required (*Science*, 25 August 1989, p. 809). Now the High Energy Physics Advisory Panel (HEPAP) says even DOE's latest figure is unrealistic.

This new price tag could cause the SSC's supporters some problems on Capitol Hill. Although political support for the project has so far remained strong, the escalating cost projections have already drawn caustic remarks from a few members of Congress. Thus, in a clear attempt to blunt the political impact of HEPAP's estimate, DOE officials called a press conference the day before it was made public to announce that other analyses are expected to come in with lower—and, in DOE's view, a little more palatable—figures. Deputy Energy Secretary W. Henson Moore said that Universities Research Associates (URA), the consortium that will build the machine, is reporting that it can complete the project in 1998 for $7.835 billion. And an internal analysis by DOE's Office of Energy Research will estimate $8.3 billion. A fourth cost analysis is being performed by a team of DOE officials and outside contractors, but Moore says he has not yet heard what its conclusion will be. The estimates, according to Moore, differ largely in the amounts they include for unexpected technical problems and slippage in the schedule.

Moore says DOE will try to reconcile these wildly varying estimates in the next 2 weeks and present Congress with an official figure on 17 August. But the department may already have made up its mind: "We feel very strongly from what we have seen so far that we should go with what the contractor [URA] thinks," said Moore.

HEPAP made it clear that it believes URA is being far too optimistic, however. "The biggest problem, to put it bluntly, was a lack of confidence about their scheduling," says Jack Townsend, director of the Goddard Space Flight Center and chairman of the HEPAP committee that reviewed URA's cost calculations. HEPAP suggests in its report that 6 to 12 months should be added at the front end of the SSC's schedule. This would push up the estimated cost by $300 million. The advisory group says another $500 million should be added to cover unanticipated expenses related to tunneling and development of the superconducting magnets that will steer protons around the racetrack-shaped collider. And still another $300 million may be needed to upgrade two detectors that will record the results of proton collisions.

SSC Laboratory Director Roy Schwitters told *Science* he is confident that the 1998 deadline can be met and that costs can be kept within URA's $7.8-billion estimate. Stretching the schedule now when there is no demonstrated need just drives up the cost, he says. Schwitters also takes issue with HEPAP's suggestion that more capable detectors should be budgeted for. While better detectors would permit a "broader and more varied research program" when the SSC first starts operating, he notes, the detectors will have to be upgraded anyway in later years in response to new findings and to take advantage of improved detector designs. In other words, there's no argument that improved detectors will be needed, the only question is when.

Townsend's committee points to many reasons why it thinks URA's estimates and schedule are too rosy. Ramping up the construction programs in a short period will be difficult because key personnel still are not in place, it says. And nobody has yet been put in charge of the superconducting magnet program, yet this program "probably has the highest degree of risk of any of the technical elements." (Even SSC officials say the magnets will cost $2.1 billion, twice the figure estimated in 1987.)

The project would also be stretched out if huge funding increases are not provided in the next few years. The SSC's schedule requires that the budget be doubled from $525 million in fiscal year 1991 to about $1.2 billion in 1992. "Given the state of the federal budget deficit now, factors of 2 are kind of hard to attain," notes Townsend.

■ **Mark Crawford**

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