

SUPERCONDUCTING SUPER COLLIDER

University Consortium Faulted On Management, Accounting

Four years into the job of building the Superconducting Super Collider (SSC)—and in the face of growing political pressure to kill the project—congressional and federal officials are questioning whether the university consortium that runs the SSC is up to the job. Universities Research Association Inc. (URA), a group of 80 public and private research universities that also operates Fermilab, was selected as prime contractor in January 1989. But after repeated charges of mismanagement and accounting abuses, the Department of Energy (DOE), which funds the project, is contemplating major changes to the contract, including terminating it.

Representative John Dingell (D-MI), chairman of the energy and water investigations subcommittee that held a hearing last week on the matter, says that “everyone from the subcontractors to the DOE to the various audit agencies now recognizes that this choice of [URA as] prime contractor was a mistake.”

With the SSC's future already in doubt (*Science*, 2 July, p. 27), nit-picking over accounting details may seem like rearranging the deck chairs on the *Titanic*. But the SSC has shown the capacity to come back from the dead before, and Dingell defends his inquiry as part of a series of investigations into alleged abuses in DOE contracting. In his years of investigating defense contractors, Dingell noted, he had seen dozens of dodgy contracts, “but the SSC ranks among the worst in terms of contract mismanagement and failed government oversight.”

Although DOE has been criticized for failing to obtain enough foreign contributions and for its own management flaws, much of the problem, according to Dingell, lies with URA, whose only previous construction project, the Fermilab accelerator, was one-

twentieth the size of the SSC. URA was the only bidder on the original contract because its previous experience (a 1983 upgrade at Fermilab, the Tevatron accelerator, also uses superconducting magnets)—not to mention its close ties to the scientific community—seemed unbeatable. But so far the SSC has been largely a \$1.6 billion construction project, with science taking a back seat to pouring concrete and boring tunnels.

That lack of expertise seems to be showing up in irregular accounting practices. One charge leveled last week by investigators from Dingell's staff and the congressional General Accounting Office (GAO) was that SSC officials maintain what amounts to two sets of books, effectively hiding overruns. While the project publicly claims to be under budget, internal accounts show overruns of as much as \$75 million since the double

accounting system was set up in March. GAO also took the SSC to task for lacking an approved cost estimating system—4 years into the project and more than a year after it had promised to implement one.

URA president John Toll, in an interview with *Science*, argued that these concerns, while legitimate, do not affect the project, which has achieved all its technical milestones. The project has had a cost-control system from the beginning, he said, but it had taken longer than expected to integrate it

into the computerized accounting system. The parallel accounting, which Toll said he learned about only days before the hearing, was intended to be a temporary holding place for overruns that SSC officials expected to be able to offset with future savings. Nevertheless, he said he thinks the account is “a dumb idea,” and he intends to “get rid of it.”

This is not the first time that URA's competence has been questioned. Last week's congressional investigation and hearing was the fourth on SSC management in the past 3 years. And DOE officials tried twice before, in 1991 and 1992, to remove URA as the prime contractor, only to be overruled by then-DOE Secretary James Watkins, who decided to shake up management instead.

Although DOE officials publicly maintained that the alleged problems were overstated and that any lapses in management and oversight would soon be corrected, in private they were frustrated with the project. “I can't tell you how many times I had the URA team in to haul them over the coals,” says Watkins, now a consultant with APCO Associates, a Washington consulting firm. Finally, he says, “we decided to split out the science from the program management.”

Watkins, a retired admiral, turned the construction part of the project into a Navy operation. He appointed two former Navy officers he had known from his service days, one, Edward Siskin, as the SSC general manager within URA and the other, Joseph Cipriano, as SSC project manager within DOE. This move, Watkins says, effectively removed the SSC laboratory director, Roy Schwitters, who works for URA, from overseeing most construction. “I think Schwitters is a good scientist, but he did not have the experience to be a good manager,” Watkins says.

Princeton physicist William Happer, who until March was DOE's director of energy research, says that URA, formed in the mid-1960s, was stuck in the past. “There was this attitude of ‘just send us the money and don't bother us,’” Happer says.

DOE Secretary Hazel O'Leary joined Dingell in pillorying URA last week. Calling URA officials “arrogant,” she censured the consortium for attempting to withhold documents from the congressional investigators and otherwise obstructing their work.

O'Leary has begun a 30-day review of the project and has laid out three options: terminating the URA contract; going beyond what Watkins did and awarding separate contracts for science and conventional construction; and renegotiating the existing contract to give DOE a larger oversight role. Sources close to the project predict that O'Leary will pick a variation of the third option and will remove at least one of the managers grilled at last week's hearing.

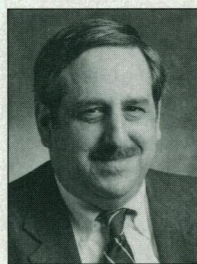
—Christopher Anderson



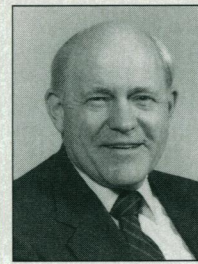
O'Leary



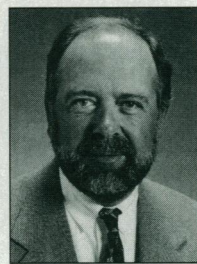
Cipriano



Siskin



Toll



Schwitters

Shakeup ahead?

Cipriano and Siskin were added to the DOE/URA management team to bolster the work of Toll and Schwitters. Now DOE Secretary O'Leary must decide whether to reshuffle the lineup.