Industry Wary of Tech Transfer Bills

Technology transfer legislation is not likely to start moving through Congress until fall, but provisions in the House and Senate bills already are creating a stir. The proposals' aim is to enhance productivity of the nation's 380 federally owned research laboratories and to increase industry's access to technologies spawned by these facilities.

At first glance, it does not appear that there is much to debate. The legislation has attracted the support of Senate Majority Leader Robert Dole (R–Kans) and House Minority Leader Robert Michel (R–Ill.), who are sponsoring S. 65 and H.R. 695, respectively. And a similar bill, H.R. 1572, is being sponsored by five members of the House subcommittee on science, research and technology. But industry lobbyists are scrutinizing provisions in the House and Senate bills dealing with royalty assignments.

The sponsors of the three bills want to give federal labs greater authority to enter into joint agreements with private parties and to provide a better reward system for federal inventors. Under the legislative proposals, the laboratories would get 100 percent of all royalties paid by manufacturers for inventions. The revenues could be used to finance new research programs as well as pay inventors' royalty fees and cover related administrative costs.

The proposed amendments to the Stevenson-Wydler Technology Innovation Act of 1980 are targeted at federally operated laboratories like the National Bureau of Standards. It would permit them to transfer technology to industry and to enter into technology development pacts. Except for a handful of Department of Energy facilities, federal labs have lacked adequate legal authority to reassign patent rights. Passage of these provisions would cap a 3-year effort by the Reagan administration to improve industry's access to federal laboratory inventions and facilities.

The most controversial issue is a proposal to reward government inventors with "at least 15 percent" of the royalties on any invention licensed for commercial uses. Industry views it as a potential threat—because it could trigger legislation to require specific compensation for private inventors. "It would set an unfortunate precedent . . . " and have an "anti-innovative impact," contends Richard C. Witte, chief counsel for Procter & Gamble Co., and chairman of the National Association of Manufacturers' task force on intellectual property.

"I don't think that NASA, DOD, or DOE employees should be moonlighting on the job," says Russell C. Drew, the Institute of Electrical and Electronics Engineers' (IEEE) vice president for professional affairs. "We don't want the laboratories mission subverted," says Drew, who fears the laboratories might change their orientation to short-term research that has greater commercial value. "We don't need any more competition from federal laboratories, says Drew, a former NASA scientist. His company, Viking Instruments Corp., manufactures a portable spectrometer under an exclusive license from the National Aeronautics and Space Administration (NASA).

The Reagan Administration has yet to take a position on the legislative proposals so far. In part, this is because agencies such as the NASA and the Department of Defense are at odds with the compensation formula, which the Department of Commerce supports. NASA, which has its own reward system, says the the legislation is not balanced. It fails to consider the need to compensate scientists and inventors with discoveries that don't have products or ideas with commercial applications, they argue.

Furthermore, the legislation leaves it to each of the national laboratories to make its own deals. This decentralized approach can be unwise and in some cases unworkable for some agencies, DOE officials say. The laboratories, they note, frequently need legal and technical guidance from headquarters. In addition, DOE officials say there is a need to be able to reward other people who have contributed to the development of an invention but are not the legal inventors.

Management needs the flexibility to make awards that are commensurate with the value of an invention and to compensate other people, says Representative Edward Zschau (R–Calif.). A sponsor of H.R. 695, he says the legislation must be revised to address these problems.

In the wake of testimony presented 21 and 22 May before the House subcommittee on science, research and technology and the absence of a formal administration position, congressional aides are saying the legislation must be overhauled. Commerce Department officials concede that some modification of existing language to provide administrative flexibility will be required.

To help foster this technology transfer, H.R. 1572 contains a provision that establishes a Federal Laboratory Consortium for Technology Transfer within the National Science Foundation. This organization already exists at NSF but is slated to be shut down in fiscal year 1986, which begins 1 October. In line with the Administration's plan, NSF is officially opposed to reestablishing the consortium within the agency. And there are indications that Congress may does not want the group centered at NSF.

Senate legislation (S. 65) and the bill offered by the minority in the House (H.R. 695) call for empowering the Department of Commerce to monitor and promote technology transfer betweeen the national laboratories and the private sector. However, behind-the-scenes bad blood between some Commerce Department officials and their counterparts in affected federal agencies is fueling opposition to the concept. Just how this will be resolved remains unclear, although subcommittee chairman Doug Walgren (D–Pa.) favors giving Commerce the responsibility.

The speed with which the legislation moves through the House this fall may be affected by the cloud that has been cast over Commerce's role in this legislation. Representative John Dingell (D–Mich.), chairman of the House Energy and Commerce Committee requested the General Accounting Office to examine whether the department had gone too far in pushing legislation and had in fact lobbied.

Dingell raised this issue with Commerce Secretary Malcolm Baldrige in a 22 April letter, stating that "at the very least" it appeared as though there was "a Czar-like approach from Commerce officials toward other agencies and an intention to engage in lobbying activities not authorized by law." Commerce officials deny that their has been any wrongdoing. Nevertheless, Dingell has asked that Commerce's inspector general look into the matter and report on any violations of law.—MARK CRAWFORD

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extension of rehabilitation programs; and much more data-gathering. The report notes that federal efforts are now lamentably fragmented: most epidemiological and prevention research is done within the DOT; biomechanics is spread around the National Institutes of Health, and rehabilitation research is mostly conducted at the Veterans Administration. Surprisingly, the committee did not find any trauma research worth mentioning going on in the Department of Defense.

With regard to injury prevention, the report contends that "automatic protection" (such as collapsible steering wheels, or perhaps weaker liquor for drinkers) is the best strategy. Education is not seen as the answer: "neither safety-education campaigns nor driver-education programs have been shown by scientific evaluation to justify the faith and large budgets accorded them." Legal remedies are better, says the report, but laws "tend to be least effective among the very groups that are at highest risk of injury."

The committee decided the CDC was the best place for a Center for Injury Control because much of the work is too applied and too interdisciplinary for the National Institutes of Health. Besides, NIH doesn't want any more institutes. According to neurosurgeon Ayub K. Ommaya, a consultant to the DOT, the transportation subcommittee of the House Appropriations Committee, headed by William Lehman (D–Fla.), is now working on legislation to facilitate the panel's recommendations. Initial funding is to be by the DOT; no budget has yet been determined.—**Constance Holden**

California Gears Up to Bid for the SSC

California's congressional delegation is formally stepping into the fight to land the Superconducting Super Collider (SSC). On 23 May the state's representatives and senators announced the formation of the Superconducting Super Collider California Committee (SSCCC). The State of California already has appropriated $500,000 to the University of California to develop a site proposal for the project, outlays for which could total $6 billion if it is completed in the early 1990's. And aides to the California delegation say the state is preparing to match offers made by competing states.

Meanwhile, the state of Texas has established the Texas National Research Laboratory Commission to lead efforts to capture the high-energy particle accelerator. The state legislature has given the commission eminent domain authority to condemn land where necessary. Texas already has identified six potentially suitable sites, two of which have existing buildings that could be used to house laboratory facilities. Governor Mark White's Office of Economic Development indicates that the state will be able to donate the land. Contrary to previous reports, Texas has not committed, formally or informally, to construct the machine's tunnel. Nor has it agreed to erect any new buildings at this time.

Also vying for the SSC is the state of Illinois, which would like the project tied in to the Fermi National Accelerator Laboratory's existing 1-mile ring. To rally private sector support for locating the machine in Illinois, Governor James R. Thompson has established a private sector task force dubbed "SSC for Illinois, Inc." The state has appropriated $500,000 in 1984 and 1985 for related research and planning. That budget is being hiked to $2.5 million in 1986 to prepare a preliminary site proposal for submission in 1987. For 1987 the state is appropriating $5 million for acquiring rights-of-way for the SSC tunnel, which might have to be placed 300 to 400 feet underground because of uneven terrain and geologic problems, state officials say.

Even though these three states are moving aggressively to win the SSC, the project is not much more than a paper dream. High-ranking Department of Energy officials say the government's support for related research—about $20 million annually—does not mean the SSC will be built. Noting the chilly budgetary climate, one program head says: "Right now we are just trying to keep the idea alive."

State officials are realizing that the SSC may be a long time in coming to fruition. Texas officials are instructing communities that are potential sites to plan for the SSC but not to count on it. Says one Illinois official about the prospect of the project being funded in the next few years: "We know it's pretty bleak."—**Mark Crawford**

NRC Considers Dropping University Reactor Rule

The staff of the Nuclear Regulatory Commission is expected to recommend on 19 June that the agency revise—and perhaps back away from—rules requiring university research reactors to convert to low-enriched uranium fuel. It is uncertain, however, whether the commission will support taking this tack, which would run counter to the NRC's proposed rule-making of a year ago.

Since 1982 the NRC has called for limiting the use of highly enriched uranium in research and test reactors to the maximum extent possible. And in June of 1984 the agency proposed that 31 university and industrial reactors be required to convert to low-enriched fuel. The broadly written rule provided for exempting unique facilities and took a flexible approach toward scheduling conversions.

The purpose of the fuel change was not only to stop bomb-grade material stored at U.S. universities from falling into the hands of terrorists, but to encourage foreign countries to make fuel conversions at their research reactors. Without fuel switches at American facilities, proponents argue, U.S. efforts to halt the spread of nuclear weapons overseas will fail.

But some U.S. reactor operators have opposed the fuel conversion because not all costs would be covered by the government. In some cases, NRC officials say, commercial operations at industrial facilities might be affected. In addition to expense that could be incurred, agency officials say some universities are concerned this action will set off a push to ban reactors from some campuses.

Since the rule-making was first proposed the number of universities with reactors using highly enriched fuel has dropped to about 21 and to five for industry. In total they possess about 300 kilograms of highly enriched fuel, only about 90 kilograms of which are unirradiated or slightly irradiated, NRC officials estimate.

—**Mark Crawford**