

## Credit for University R&D Offered in Tax Reform Bill

"I blanch when people refer to it as a new tax credit," says Washington lobbyist Newton Cattell, speaking of a section he helped insert in the tax bill drafted last month by the House Ways and Means Committee. He is nervous about clashing with the general image of the bill, which has been described as a simplification and "reform" program. But Cattell's section is new. And it will benefit companies that pay for research at universities.

Cattell is active in the Coalition for the Advancement of Industrial Technology (CAIT), a high-tech group that came together about a year ago with the express purpose of making the R&D tax credit permanent. This provision, enacted in 1981 as a temporary measure, permits companies to get a credit against their taxes equal to 25 percent of the increase in their R&D spending, as measured against the record of the previous 3 years. By one estimate, it forgives \$1 billion in taxes each year. It is due to expire this December, and the coalition hopes to get it extended.

Congress approved the credit 4 years ago based on two assumptions: (i) that private work on R&D results in a general benefit for society—increased productivity—and (ii) that companies are not adequately rewarded for their R&D investments. By putting new incentives in the tax code, it was hoped, more companies would invest in innovation.

Private R&D expenditures have grown from around \$30 billion in 1980 to around \$55 billion this year, but it is impossible to guess how much of that growth was inspired by tax policy. Some analysts have argued that the spurt in expenditures began before the tax change occurred.

In any case, the members of CAIT—59 companies, 19 universities, and 11 associations—want to keep the credit. Their voice has been heard. The early tax reform plan proposed by the Administration would have kept the R&D tax credit temporarily, with minor changes. But the preliminary Ways and Means proposal this fall would have made drastic changes, such that, according to CAIT, some companies would have

paid a penalty for doing a lot of R&D.

After some intense redrafting sessions last month, the Ways and Means Committee came out with a new bill at Thanksgiving. This version includes a 3-year extension of the R&D tax credit, at a lesser rate of 20 rather than 25 percent. It also provides something new, a tax credit amounting to a flat 20 percent of any funds spent on R&D at universities above a floor set in 1981–1983. The tax analysts have come up with a crude and, most say, exaggerated estimate of what this would cost the Treasury—about \$100 million a year.

Cattell says that if it survives, this credit could become significant, especially for university heads trying to win corporate support for research. However, the President has given only lukewarm approval of the work done by the Ways and Means Committee, and there are no safe bets on what will happen to the tax reform effort.

—ELIOT MARSHALL

## GAO Finds Errors in A-Bomb Test Data

When an Army-Navy task force set off the first peacetime atomic blasts in the South Pacific in 1946, radiation safety was not the fastidious business it is today. According to a study of those tests released last week by Senator Alan Cranston (D-Calif.), many of the sailors who took part in two early tests (known as Operation Crossroads) may have been exposed to dangerous levels of gamma, alpha, and beta radiation.

The study was performed for Cranston by the General Accounting Office (GAO). The trigger for this reanalysis of old data was the release last year of the personal papers of Stafford Warren, the first dean of the medical school at the University of California at Los Angeles and chief radiation safety officer for the Manhattan Project and for Operation Crossroads.

However, after looking through Warren's papers and other military documents, the GAO investigators found it exceedingly difficult to learn exactly what did happen 40 years ago in the lagoon of Bikini Atoll. Record keeping was not the best when the tests were in progress. Warren bailed

out in the middle of the program, calling a halt to a planned third detonation, arguing that safety standards were being slighted. Since then, the government has had no enthusiasm for digging into this case. The evidence that can be found today is spotty and suggestive. While it is clear from the available records that unnecessary risks were taken, it is not clear, at least not in this GAO report, that the risk-taking led to any serious radiation exposures or injuries.

Nevertheless, on the belief that their illnesses are service-related, 500 veterans from among the 42,000 Navy and Army personnel involved in Operation Crossroads have filed claims for injuries they say were caused by the bomb tests. The government has dismissed all of them with the argument that none was seriously exposed.

The GAO does not challenge any of these dismissals, but it does challenge the attitude and the methodology used by the Defense Department. Among the points the GAO makes are the following:

- Errors in reading exposure badges may have been as great as plus or minus 100 percent, not 30 percent as officials have claimed.
- Decontamination procedures were chaotic and inconsistent, particularly for the second test known as Baker, in which a huge column of radioactive water spilled over test ships. It took 19 days after the blast to get decontamination procedures fully established. Meanwhile, many sailors were working on and in the ships.
- Unjustified assumptions were made about the ratio of gamma/alpha/beta exposures, leading possibly to an understatement of alpha exposures.

The GAO recommended that the military experts reassess their dose numbers, taking into account a wider margin of error on the film badge readings and allowing for the likelihood that sailors ingested radioactive particles or were exposed because of the admittedly poor system of decontamination.

Donald Hicks, the under secretary of defense, wrote in his reply that the department "non-concurs" with these recommendations. For that reason, Senator Cranston has asked Defense Secretary Caspar Weinberger and President Reagan for an independent audit of the data.—ELIOT MARSHALL