Research Status in DOE Looking Good

Many scientists are optimistic that a healthy prominence for basic research will be ensured by both the structure and leadership of the new Department of Energy (DOE), which was slated for final congressional passage on 2 August.

Much of the optimism is the result of a meeting on 14 July, arranged by presidential science adviser Frank Press, between Energy Secretary-to-be Schlesinger and a dozen or so scientist-administrators from universities and national laboratories. The meeting, held in the White House, was scheduled for 1 hour but lasted for 2, and the scientists emerged with the feeling that Schlesinger understood and shared their concerns.

All were impressed with Schlesinger's brains and openness. Louis Rosen of the Los Alamos Meson Factory thought he was "one of the most intelligent and one of the brightest people I have ever come in contact with." The meeting, he said, was "a very encouraging sign in terms of Dr. Schlesinger's perception of how basic research fits into his program. . . ." Richard Caldecott of the University of Minnesota was downright effusive. "I've been pretty down on the mediocrity we have had" in high government councils, he said, but contact with Schlesinger, Press, and National Science Foundation director Richard Atkinson made him feel "well, damn it all at least we've got a chance . . . we've got really superior intellects in those jobs. This guy Frank Press is really pretty special."

What has the scientists so pleased is that the DOE will have a high level "Office of Energy Research" that will coordinate R & D activities throughout the agency and, it is expected, will have programmatic responsibilities of its own in basic research. It is to be located in the Secretary's office and is to have a budget of its own, therefore avoiding the fate of those advisory bodies that are left to float off on their own, penniless and ineffectual, without links to the chain of command.

The existence of this office is, in large part, attributable to the efforts of academic scientists around the country who were anxious to see that research would not be trampled in the bustle of the new agency. Responding to approaches from the University of California and the Association of American Universities, Representative John Moss (D–Calif.), an enthusiastic fan of big science, introduced an amendment to the House DOE bill to establish an Office of Energy Research for administering the physical research program transferred from ERDA, as well as advising the secretary on R & D throughout the department. The House-Senate conference changed the office's duties from administering the ERDA program to advising the secretary on it. However, scientists are confident that the director will still be free to initiate research under a provision that allows the office to "carry out such additional duties . . . relating to basic and applied research . . . as the Secretary considers advantageous." They see the office as a device to ensure a sustained high-level focus on the country's long-range research needs, and also as a mechanism to support research that "falls between the cracks" of the agency's functions as well as long-range research in esoteric fields like theoretical thermodynamics.

Just how the office will work remains to be seen, because the legislation is designed, as Schlesinger wished, to leave a great deal to the discretion of the secretary. The law spells out 11 DOE "functions,"* to be overseen by eight assistant secretaries, but how these areas are combined under which secretaries is left up to Schlesigner.

Nonetheless, academic scientists think things are looking good. As a Moss aide says, "the science and R & D folks will have their inside person," and they are confident that the research office will have considerable influence if the right person is picked. And substantial good will was generated by the meeting put together by Press. Says a Press aide: "I guess this is one example of a science adviser quietly getting things done."—C.H.

*Energy resource applications; R & D; environment; international programs and policy; national security; intergovernmental policies and relations; competition and consumer affairs; nuclear waste management; conservation; power marketing functions; and public and congressional relations.

an internal memorandum prepared by nine geologists and seismologists at the U.S. Geological Survey (USGS) center at Menlo Park, California, was somehow leaked to the press on 20 March, the day before the Department of the Interior's water projects review team was to begin a hearing on the Auburn project. This memo, based on a brief field inspection of some trenches near the dam site, reported that less than a mile from the site a relatively young and presumably active fault had been found and that it "trends" toward the dam's right abutment.

Actually, the trenches examined by the USGS scientists had been part of a seismic risk evaluation commissioned by the Bureau of Reclamation almost a year earlier. For, after the Oroville quake had dispelled the belief that the foothills province was safe from surface faulting, the bureau had begun to rethink its past failure to submit the seismic hazards at Auburn to outside evaluation. The upshot was that, in the spring of 1976—and the bureau contends this was done of its own volition and not in response to pressure from its critics—the San Francisco consulting firm of Woodward-Clyde Associates was retained to make an exhaustive seismic study under a $1.5-million contract. About the same time, several other outside consultants were appointed to review the adequacy of the dam design in light of what might be learned of the earthquake hazard.

The findings of the Woodward-Clyde study, now virtually completed, were disclosed at a press conference in Sacramento on 28 June by Lloyd S. Cluff, the consultants' chief geologist. Although judgments as to what these findings meant for the future of the project were studiously avoided, it seemed clear that they were not encouraging. One conclusion was that, instead of the magnitude 5.5 earthquake hypothesized earlier as possible near the dam, there was evidence of active faults within 2 miles of the site that could produce an earthquake of magnitude 6 to 6.5. Such a quake would represent a "maximum credible event" for the dam designers much more powerful—and possibly more damaging—than the one that caused the extensive cracking in the 1976 computer study that had alarmed Donald Rose and the AEG.

As for the numerous faults that traverse the foundation itself, Cluff said there was somewhere between 1 chance in 10 to 1 in a 100 that there has been displacement on some of them within the last 100,000 years, which would make them "active" faults according to bureau criteria. Moreover, Cluff noted a