

Committed to the Best Science?

The U.S. Department of Energy (DOE) has plenty of important science responsibilities on its plate. For example, it is dealing with over 300 high-level nuclear waste tanks at Hanford, Washington; cleaning up environmental messes at Rocky Flats in Colorado and the Savannah River in South Carolina; and overseeing major projects at the “weapons laboratories”: Los Alamos National Laboratory and Lawrence Livermore National Laboratory (LLNL). DOE also has a wide range of research projects, including extramural programs in biomedical research, science, and technology that are just as fundamental as those supported by the National Institutes of Health. High officials of the department repeatedly pledge their commitment to “the best science.”

This commitment often occurs under circumstances in which security is also an issue. Several weeks ago, this page explored the chronic tension that exists between science and security; when the two push in different directions, sensitivity is required to balance them in the public interest. That is certainly the case with the weapons laboratories, which have been managed for 60 years by the University of California (UC). That relatively relaxed, science-friendly style has suited many of the researchers. But during recent years, rumor and scandal have raised questions about management, resulting in congressional hearings and a recent decision by DOE Secretary Spencer Abraham to put the Los Alamos contract out for competitive bid when it expires in 2005.

Some, including an organization called Project on Government Oversight (POGO), have charged that UC’s management has been lax on security. POGO had urged the secretary to go to competitive bidding without waiting until 2005, prominently citing security problems. Competitive bidding is good procedure, and issues of health, safety, and fiscal management may deserve examination here. But the evidence of security lapses is unimpressive. After all, the botched probe of the former Los Alamos nuclear scientist Wen Ho Lee was not of UC’s making (the FBI and DOE itself brought us that one). As for the former LLNL security officer involved with the modern-day Mata Hari who allegedly gave national security secrets to the Chinese, he too was FBI. If this is really a contest between science and security, it isn’t exactly clear why science should lose it.

Another DOE struggle involves the use of polygraph testing, providing an instructive entry into the way the department manages the balance between science and security. Congress, in the National Defense Authorization Act for 2002, asked DOE to review its use of lie detectors to ferret out security risks. DOE was told specifically to take into account a report by the National Academy of Sciences that was produced in due course by a distinguished scientific panel. The academy report took the issue seriously (somewhat to my surprise, because most neurobiologists and psychologists I know don’t put much faith in polygraphs) and recommended against the use of polygraphs for security screening. Their central conclusion: “Its accuracy in distinguishing actual or potential security violators from innocent test takers is insufficient to justify reliance on its use in employee screening.”

That could hardly be plainer. In its Notice of Proposed Rulemaking, however, DOE referred to the report but said that although the academy’s recommendation might be all right for the academy, its own mission was different, so the judgment couldn’t apply to it! So, unless dissuaded by the comments it may get, DOE will go ahead and use polygraphs, presumably in the same way it was using them when Congress first compelled DOE to do a review.

DOE is an important science agency that has done some really good things: It deserves much of the credit for starting the Human Genome Project, and it has given vital support to alternative energy research. But the two continuing episodes described above are likely to undermine the confidence of the scientific community in DOE. The agency owes the public a clear statement of the parameters on which it will judge the bids in the forthcoming national lab competition, along with some assurances that the conditions will not be stacked to disfavor incumbency. As for the polygraph proposal, it’s just bad science. The issue is open for comment until June 13, so if you have views, there is time to contribute them. Perhaps DOE can be persuaded to send those lie detectors to a place that needs them—maybe the National Collegiate Athletic Association.



Donald Kennedy
Editor-in-Chief