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Galvin Panel Suggests Rescuing Labs from DOE Mismanagement and Excesses

From its beginning a year ago, there were great expectations that the Galvin task force would gallop to the rescue of Energy Department laboratories, which have been given some new functions and objectives in the post-cold-war years. With the release of the Galvin report on 1 February, hope for the future of the labs increased by leaps and bounds. The 23member Galvin group—headed by Robert W. Galvin, former chairman and CEO of Motorola, and consisting mainly of corporate executives and academic scientists, with a scattering of environmentalists, a physician and a retired Air Force general—offered its highly solicited advice to the Secretary of Energy Advisory Board. In its report, the panel responded to the complaints of the lab directors and opposed the Clinton Administration's intention to push the labs into industrial partnerships to strengthen the nation's economic competitiveness.

The panel, given the cumbersome title of the Energy Advisory Board Task Force on Alternative Futures for the Department of Energy National Laboratories, concludes in its two-volume report that while some of the nation's best scientific research is done at the labs, "the current system of governance of these laboratories is broken and should be replaced with a bold alternative." The blame is not assigned to the labs or its managers. Though some in Congress, particularly in the new Republican majority, have called for consolidating or closing labs, the Galvin group does not recommend such radical changes. Rather, the panel proposes that the labs should be unhitched from the Energy Department and run "exactly like a private corporation."

"One critical finding is so much more fundamental than we anticipated that we could not in good conscience ignore it," the panel declares. "The principle behind that finding is: Government ownership and operation of these laboratories does not work well." Congress does not escape the Galvin panel's wrath: It is accused of micromanaging the labs. But the main fault is with the Energy Department's headquarters and field offices, which meddle in the day-to-day activities of the labs—a grievance that lab directors have made known repeatedly to Energy Secretary Hazel R. O'Leary and to her predecessor, James D. Watkins.

In January, in fact, the Government Accounting Office issued a similar indictment of the Energy Department. "DOE's laboratories do not have clearly defined missions that focus their considerable resources on accomplishing the department's changing objectives and national priorities," says the GAO report. By managing each lab on a program-by-program basis, "DOE has underutilized the laboratories' special talents to tackle complex, cross-cutting issues, and the laboratories may not be prepared to meet future expectations." At some labs the department conducts as many as 400 oversight reviews annually, GAO claims, resulting in lost time for research, higher cost of operation and increased stress and lowered morale among managers and scientists.

"If DOE is unable to refocus the laboratories' missions and develop a management approach consistent with these new missions," GAO's report concludes, "Congress may wish to consider alternatives to the present DOE-laboratory relationship. Such alternatives might include placing the laboratories under the control of different agencies or creating a separate structure for the sole purpose of devel-

oping a consensus on the laboratories' missions."

The Galvin panel, which also found DOE's micromanagement "excessive," delivers a more drastic alternative: "Something really substantial has to be done soon or the vitality of the laboratories will founder." The panel urges the government to divest its authority over the major multipurpose labs-possibly including the nuclear weapons labs of Los Alamos, Lawrence Livermore and Sandia. The labs would be run by an independent nonprofit corporation under a board of trustees who would be appointed by the President from the private sector. Lab directors would serve as chief operating executives of subsidiaries of the proposed corporate structure. Under this arrangement, the current contractors who operate the labs, such as research universities and commercial companies, might be removed altogether.

After releasing the report in a crowded ballroom of a Washington hotel. Galvin said at a news conference that the laboratory corporation would not be subject to government audits or investigations "any more than government people go into Ford Motor or Motorola." Congressional oversight, says the report, would be limited to allocating funds for the labs. Accountability would rest with the corporate

DOE's Multipurpose Laboratories

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Laboratory/location	Budget (FY 1994)	Staff (FY 1994)	Program emphasis
Argonne National Laboratory Illinois	\$614 million	5083	Basic energy sciences, nuclear engineering
Brookhaven National Laboratory New York	\$408 million	3417	High-energy and nuclear physics, nuclear medicine
Idaho National Engineering Laboratory Idaho	\$911 million	7823	Reactor development, bio- technology, waste management
Lawrence Berkeley Laboratory California	\$282 million	3129	Basic energy sciences, high-energy and nuclear physics
Lawrence Livermore Laboratory California	\$965 million	7321	Nuclear weapons, lasers, high performance computing
Los Alamos Laboratory New Mexico	\$1.07 billion	7024	Nuclear weapons, applied research in nuclear deterrence
Oak Ridge National Laboratory Tennessee	\$577 million	4690	Basic energy science, nuclear physics, conservation
Pacific Northwest Laboratory Washington	\$532 million	4383	Environmental restoration waste management
Sandia National Laboratories New Mexico and California	\$1.30 billion	8494	Nuclear weapons, engineering and manufacturing, combustion
National Renewable Energy Laboratory Colorado	\$214 million	913	Research on solar, wind, water and biomaterial power

board. Galvin predicted that the government might realize savings of 30% to 50% in the annual outlay of \$6.8 billion for the ten major laboratories.

The task force argues that the labs should not engage "new mission areas" but should emphasize their traditional functions: national security, energy and environmental research and basic science. The weapons labs should not be transferred to the Defense Department. The single-purpose research labs, such as Fermilab and SLAC, were outside the scope of the Galvin panel. The panel concentrated on the ten multipurpose and nuclear weapons labs, which are considered to be unequipped and unqualified to tie their future to short-term industrial research. Technology transfer, which involves laboratory-industry partnerships called cooperative R&D arrangements, are found by the panel to be "unfocused." DOE's labs, says the report, "are not now, nor will they become, cornucopias of relevant technology for a broad range of industries. There are relatively few instances in which the laboratories have [unique] technology that is vital to industry.

For her part, O'Leary said she accepted the general thrust of the report, which Congress will now use as a basis for hearings and debate on the DOE laboratories. The new Republican majority is almost certain to be responsive to the report's recommendations for "privatization" and spending cuts. O'Leary accepts the Galvin panel's charge that her department's lab complex is "too fat, too heavy and too costly." But the report does not provide O'Leary much help in reaching her goal of trimming \$10.6 billion from DOE's budget in the next five years.

While embracing most of the panel's findings and recommendations, O'Leary ruled out "drastic restructuring" of the lab system. Still, she said, the department will be streamlined and reorganized in the next year. At a breakfast interview with news reporters before the report was released, O'Leary bristled at the Galvin panel's finding that the labs should not be wasting time and resources on industrial collaborations. "That's my only quarrel," she said.

O'Leary indicated she would "spend the next several months figuring out what to do with Galvin's plan"—in particular the recommendation to shift nuclear weapons design and development from Livermore to Los Alamos.

Livermore, founded as a bombbuilding rival to Los Alamos in 1952 at the urging of Ernest O. Lawrence and Edward Teller, is credited with designing four of the eleven types of



TOURING BROOKHAVEN, Robert Galvin (right) is guided by Nick Samios.

nuclear warheads in today's US arsenal. The Galvin group said that Livermore had the greatest redundancy in the DOE laboratory system. The consolidation of Livermore and Los Alamos would include transferring work on nuclear materials development and production to Los Alamos. As the task force sees it, Livermore would retain expertise in nuclear weapons and concentrate its research on nuclear nonproliferation matters. Livermore's newly appointed director, C. Bruce Tartar, issued a statement after the report was released saying the Energy Department has its own internal post-cold-war plan for the lab, which he described as a "more comprehensive road map." Tartar also said he expects that Livermore's future role "will turn out differently" from the one envisioned by the Galvin group. Even so, the lab's limited role in weapons work raises troubling questions, including what will happen to the planned \$1.1 billion National Ignition Facility, which is touted as offering the lab a new lease on life (see PHYSICS TODAY, January, page 47).

The idea of a nongovernment corporation for DOE's ten national labs is simple in concept yet brimming with unintended consequences. A laboratory corporation may leave the R&D functions with less money to spend and fewer customers to deal with. One member of the Energy Advisory Board called the panel's recommendation for a corporate structure "hopelessly unrealistic." Butler Derrick, a former 10-term House member from South Carolina, was sarcastic: "Anyone who thinks Congress is going to turn the labs loose with \$6 billion and no oversight is living in a dream world." While Nicholas Samios, director of Brookhaven National Laboratory, is pleased with most of the panel's findings, he cautioned against a wholesale divestiture of the labs from government. He cited the case of Britain's Harwell Laboratory, which was sold to private interests and has now become little more than a job shop.

In the effort to get out from under DOE's stifling controls, the labs may find themselves the victims of cost-cutting and downsizing—those same tactics that corporate managers have exercised on their own research programs in the past decade. Without the oversight of Congress, the corporate trend toward consolidation might be accelerated at the labs. Leaner R&D labs will surely mean fewer jobs for scientists and possibly fewer risks taken on basic research.

Beyond the debate on the Galvin report in Congress, the recommendations will go to the White House and be added to other reports on labs and centers run by the Defense Department and NASA. That combination of interests suggests that the Galvin report will not remain on a shelf to gather dust like so many other studies of government activities. "I've seen reports come and go, but this one is going to be different," says Samios. As it happens, Representative Robert Walker, the Pennsylvania Republican who chairs the House Science Committee and is vice chairman of the House Budget Committee, is planning hearings on the Galvin report this month. He says he is "particularly intrigued" by the recommendations that the labs stick to basic research and the integration of energy and environmental work. IRWIN GOODWIN